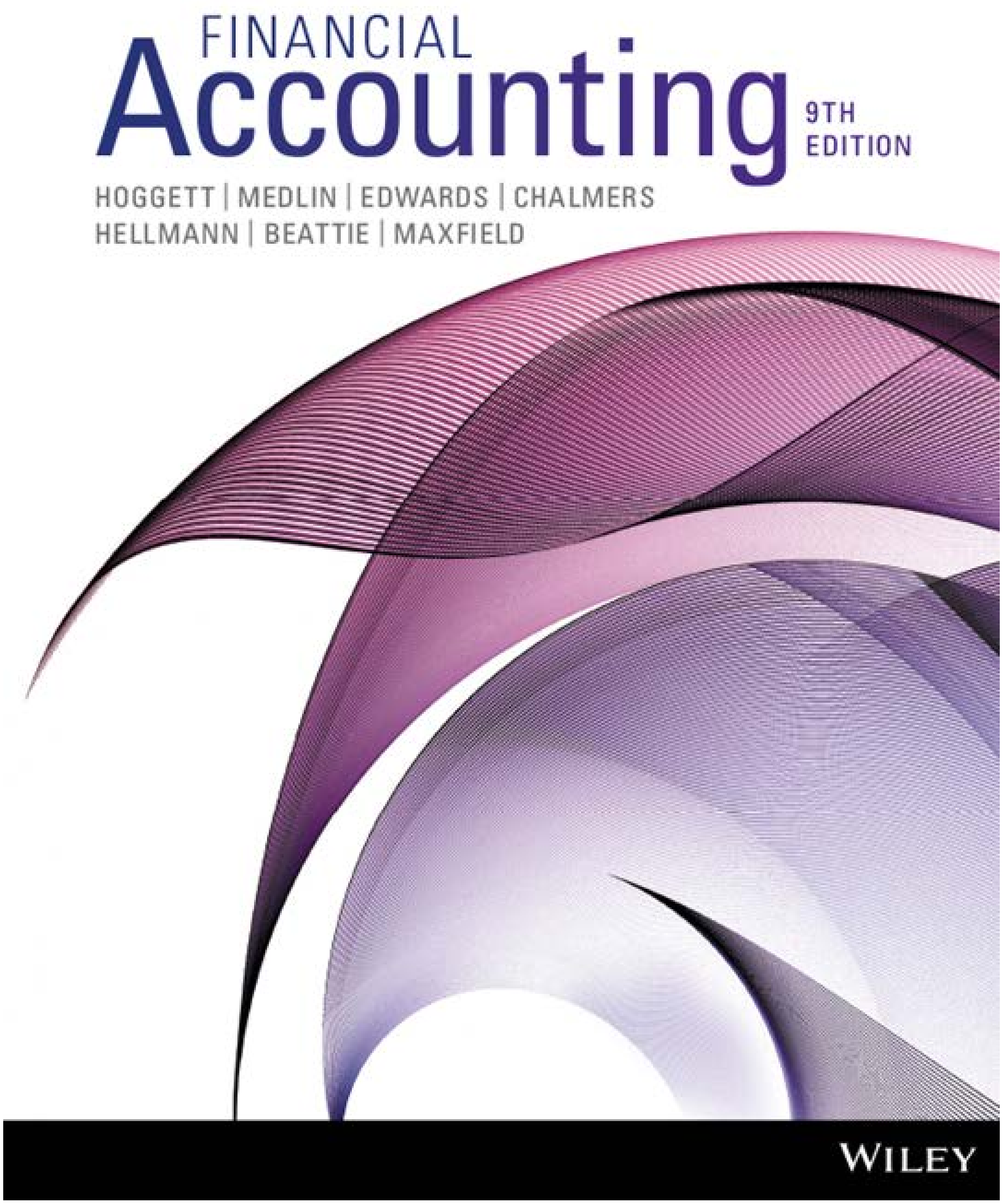

FINANCIAL Accounting

9TH EDITION

HOGGETT | MEDLIN | EDWARDS | CHALMERS
HELLMANN | BEATTIE | MAXFIELD

WILEY

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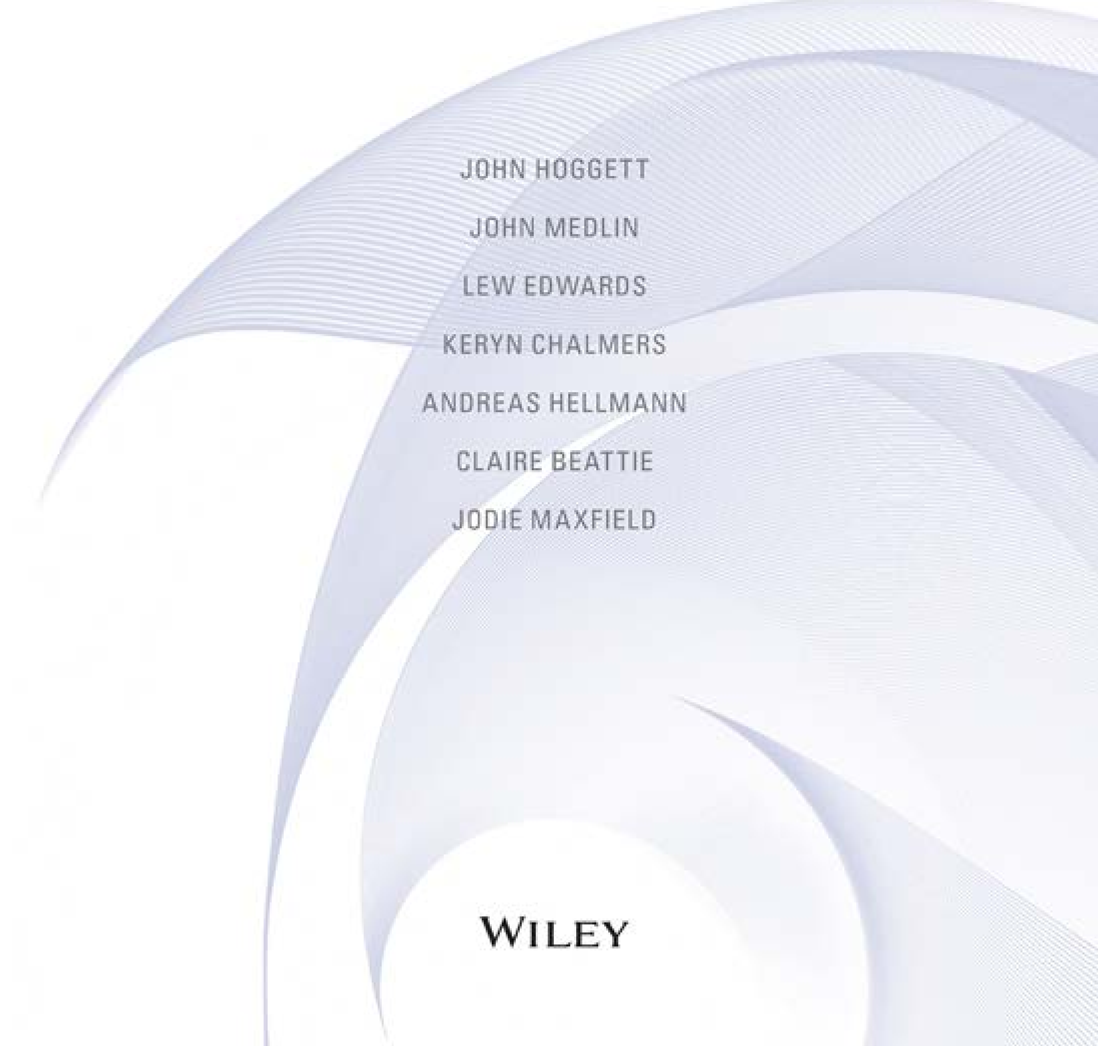

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Preface

Our main purpose in writing this book is to provide an introductory but comprehensive description of the purpose, practice and process of contemporary international financial accounting in an Australian context. With the increased emphasis on the globalisation of business, the material is ideal for the study of introductory accounting in a broad international context.

The book is designed for tertiary students interested in an accounting career and for those wanting a general understanding of the production and use of accounting information in the business sector. This ninth edition considers more fully the need for accounting knowledge by students undertaking business studies in areas other than accounting. The book is suited to a two-semester course at both the undergraduate level and the postgraduate level as it provides a general understanding of the role of financial accounting information systems in any business sector.

The ninth edition builds on the strengths of previous editions with a strong focus on the decision-making role of accounting as well as on a student's acquisition of generic skills such as communication, analysis and problem solving, critical thinking, judgement, and an appreciation of ethical issues. The opportunity to develop these generic skills is provided by the range of end-of-chapter activities. The authors, however, believe that competency in the technical skills of accounting should remain as the core objective, and the book therefore continues to provide appropriate discussion of key technical issues. It is our belief that a person equipped with knowledge of technical material in accounting possesses a powerful tool for making economic decisions and for analysing and solving business problems. These technical skills are used in the book to provide clear and detailed explanations of the accounting concepts that form the basis of the practice of accounting. The use of the technical skills of accounting in teaching concepts gives students a practical foundation from which to build their understanding.

The book is organised in six parts as follows, with emphasis on decision making in a business enterprise before consideration of external reporting issues.

Part 1: Accounting for decision making (chapters 1–2)
Part 2: Accounting systems and processes (chapters 3–7)
Part 3: Equity in business (chapters 8–9)
Part 4: Accounting regulation of assets and liabilities (chapters 10–16)
Part 5: External reporting and performance evaluation (chapters 17–19).

Based on feedback from users of the previous editions of this book, there remains in the ninth edition a strong focus on:

1. service organisations operating in the business and not-for-profit sectors
2. the use of accounting information by non-accountants, both in text examples and in end-of-chapter activities
3. the impact of the goods and services tax (GST) on business records in a number of exercises and problems
4. the effect of accounting information on decisions made in business (segments in each chapter provide links to business activities, and each chapter contains a scene setter)
5. the effect on accounting systems of improvements in information technology
6. the impact of developments in the regulation of accounting standards at national and international levels.

We have continued to improve the readability of the book without compromising the integrity of its theoretical and practical content, and have continued the policy of including detailed learning objectives.

Many chapters provide a discussion of the impact of the GST on business, especially on small business. However, instructors can ignore the effects of the GST if they wish to pay attention to the other accounting issues in each chapter. An introductory coverage of the GST is provided as an appendix to chapter 3. Many exercises and problems permit lecturers to select where GST is included and where it is excluded.

Changes from the previous edition

The major features of this ninth edition include the following.

- Material has been extensively rewritten in relation to the new regulatory arrangements for the development of accounting standards globally and in the Australian context.
- ‘Scene setters’ at the beginning of each chapter have been updated to help students understand the relevance of the accounting material in that chapter to the issues faced by accountants in practice.
- Additional and new ‘business knowledge’ vignettes in each chapter show the relevance of accounting to the practical world of business.
- Learning checks have been added to summarise the key points from the preceding section.
- Approximately half of the discussion questions, exercises and problems in many chapters are new.
- In the end-of-chapter case material, several decision analysis cases, critical thinking cases, communication and leadership activities and ethics and governance issues are either new or updated. Web-based activities are included in several chapters. In addition, the financial analysis is based on the latest JB Hi-Fi Limited annual report, which is available on its website, www.jbhifi.com.au.
- All the exercises and problems are now tagged by learning objective.

Supplementary materials

Financial Accounting 9th edition is supported with an extensive teaching and learning resources supplementary package.

- ***WileyPLUS*** is a research-based online environment for effective teaching and learning. With ***WileyPLUS***, lecturers can prepare, assign and grade accounting activities simply and in a time efficient manner. ***WileyPLUS*** increases student confidence through an innovative design that allows greater engagement, which leads to improved learning outcomes. For more information, contact your John Wiley & Sons sales consultant or visit www.wileyplus.com.
- A solutions manual containing worked solutions to all end-of-chapter discussion questions, exercises, problems, case studies and activities is available for lecturers who prescribe this text. The solution manual has been thoroughly checked for accuracy and correctness.
- PowerPoint Presentation contains over 1000 slides with summaries of key concepts and processes presented in the chapter as well as key diagrams and worked examples from the text.

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We wish to express our appreciation of the following people and organisations who have contributed in some way to the development of the ninth edition of this book and to the refinement of our ideas. Particular appreciation is again extended to our very patient partners and to our families for their continued understanding, assistance with finding material for cases, business knowledge and profiles, and with proofreading, and for their tolerance of partners and parents who are buried in their studies for long hours at evenings and weekends.

Special appreciation is also extended to those who have contributed to the text as independent reviewers and preparers of the extensive teaching and learning resources associated with the textbook. We appreciate the contributions of Andrew Reynolds (Curtin University), Nila Latimer, Philip Johnson (University of South Australia), Peter Hall (University of South Australia) and Penny Janson (University of Western Sydney), who worked on various elements of the teaching and WileyPLUS resources.

John Hoggett, Lew Edwards, John Medlin, Keryn Chalmers,
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Part 1

Accounting for decision making

CHAPTER 1

Decision making and the role of accounting

The dynamic environment of accounting
Decisions in everyday life
Economic decisions
The nature of accounting
Users of accounting information
Using information in economic decisions
Accounting information and decisions
Management and financial accounting
Accounting as a profession — Australian perspective
Public accounting versus commercial accounting
Ethics and accounting
Key terms
Discussion questions
Exercises
Decision analysis
Critical thinking
Communication and leadership
Ethics and governance
Financial analysis

Learning Objectives

After studying this chapter you should be able to:

1 outline the dynamic environment in which accountants work (pp. 4–5)
2 discuss the nature of decisions and the decision-making process (pp. 5–6)
3 outline the range of economic decisions made in the marketplace (pp. 6–7)
4 explain the nature of accounting and its main functions (pp. 8–10)
5 identify the potential users of accounting information (pp. 10–11)
6 apply information to make basic economic decisions (pp. 11–13)
7 describe the role of accounting information in the decision-making process (pp. 13–14)
8 compare accounting information for management and external users (pp. 14–15)
9 summarise how the accounting profession is organised in Australia (pp. 15–16)
10 identify the different areas of the economy in which accountants work (pp. 16–20)
11 identify the importance of ethics in business and accounting and how to recognise and handle ethical dilemmas as part of the decision-making process (pp. 20–2).

A natural fit

Simone Taylor is the financial controller for OrotonGroup. Never previously having considered a career as an accountant, her interest in the profession was sparked during a discussion with a careers advisor during secondary school.

Sold on the idea that the accounting profession would bring diversity of work opportunities, Taylor commenced as a cadet with KPMG's cadetship program after graduating from high school in 1998, working full time in the audit consumer and retail group for two years.

Taylor then worked as an internal auditor at confectionary giant Nestlé's head office in Switzerland, where she audited the organisation's factories and supply chain globally. After three years, a financial controller's role with British fashion powerhouse Burberry beckoned in London, before a stint in forensic accounting with the United Kingdom's Serious Fraud Office.

In 2009, Taylor accepted a position at OrotonGroup. The company has approximately 85 stores throughout Australia and Asia. Her role is to assist steering the finance function. The role is diverse, from an early morning sales meeting to product reports and cash flow, as well as rolling out a new Asia strategy, which includes setting up new structures from payroll through to audit.... The role also involves implementing finance support services for strategic decisions, such as online shopping, acquisitions and partnerships, to adapt to the business and economic environment to the brand's advantage.

Beyond OrotonGroup, Taylor foresees an eventual move into a chief financial officer role that represents the right mix of company culture and product mix. As with OrotonGroup, she sees any future role as adding to the business. 'I can't be at a company where it's just presenting a report at the end of the month — it has to be a business partner role.'

Source: Excerpts from Tydd, J 2012, 'A natural fit', ***Charter***, November, pp. 66–7.

Chapter preview

Welcome to your journey into the field of accounting. If your initial reaction to accounting is 'boring!', then think again. Accounting, at times, can be full of politics and intrigue, and the financial figures it produces are useful to informing many business decisions. The figures also may be the result of unethical behaviour whereby people have ‘cooked the books’. So let’s begin.

Whether you are studying this subject with a view to following a career in retail, as has Simone Taylor in our scene setter, sports management, financial planning, or simply to gain a basic understanding of the field as it relates to other areas of business, we hope that you find your study of the subject enjoyable, challenging and useful. Inevitably, a study of accounting requires a basic understanding of record keeping, but accounting is far more than that. Accounting plays a vital role in the decision-making processes of every organisation, whether it is a for-profit organisation (e.g. Commonwealth Bank), not-for-profit organisation (e.g. a charity such as Oxfam) or a government organisation (e.g. a local council).

1.1 The dynamic environment of accounting

LO 1 Outline the dynamic environment in which accountants work.

Accountants traditionally have been viewed as the ‘bean counters’ or ‘number-crunchers’ of an organisation, but this is no longer their major task. Computerised accounting systems can now do much of the work. Even small businesses have access to computerised accounting systems such as Mind Your Own Business (MYOB), so the role of accountants has changed radically. Accountants working in organisations have become important members of the management team, as organisations have to contend with social changes caused by several factors:

- the dramatic development of information and communications technology including electronic banking, the Internet and e-commerce
- the increasing demand by society for information of a non-financial nature, such as information about an entity’s attention to occupational health and safety issues, social and equity diversity issues such as the employment of people with disabilities and indigenous people, and environ mental considerations such as water usage, the organisation’s carbon footprint and other sustainability practices
- the globalisation of business. Instead of merely being involved in a particular local community, many organisations are seeing the world as their marketplace and as their source of labour and knowledge. This has placed increasing demands on organisations to be accountable for their corporate behaviour in foreign countries, including abiding by their rules and regulations, and their impact on the society and environment of those countries. Questions being asked include: How well does an organisation treat and pay its employees in developing countries? Is business conducted by way of political payments (bribes) to influential officials in those countries? What corporate governance practices apply in those countries?
- the globalisation of regulations affecting business organisations, such as the development and adoption of international financial reporting standards.

One thing is certain: change will continue. In order to cope, accountants of the future need to have not only record-keeping knowledge but also analytical and communication skills and business strategy and planning know-how. They need the ability to think clearly and critically in order to solve problems, a familiarity with information systems and technology, strong interpersonal communication skills with clients and business associates, and sound ethical behaviour in different cultural environments.

This book is designed for all students studying accounting for the first time at a university level, both those majoring in accounting and those seeking a basic understanding of accounting but studying in other fields, such as marketing, management, economics, information technology, law, engineering, the arts and sciences. Accounting is usually a core unit in business degrees as it is the ‘language of business’.

Many students in non-accounting majors can benefit greatly from reading this book. Engineers are often involved in designing products to reduce costs and meet target prices, so much of their work is driven by accounting measures. Marketers often strive to maximise sales, so a knowledge of costs, pricing and accounting methods is helpful for success. Human resources managers are responsible for one of the major costs in an organisation, so they need to choose a mix of staff

to provide a quality service while keeping control of salary and wages costs. Indeed, many professional groups outside of accounting find that having a good grasp of accounting concepts is an advantage and enhances the opportunities for success in their chosen careers.

We begin the book by considering decision making in everyday life, and the role of accounting in providing information for the decision-making process. Also in this chapter, we acquaint you with the types of activities that are carried out by a professional accountant working in business.

LEARNING CHECK

- ☐ Accountants are not purely record keepers but are part of the management team in an organisation.
- ☐ Accountants need to have not only record-keeping knowledge but also analytical skills and business strategy and planning knowhow.
- ☐ Accountants need the ability to think clearly and critically in order to solve problems, a familiarity with information systems and technology, strong interpersonal communication skills with clients and business associates, and sound ethical behaviour in different cultural environments.

1.2 Decisions in everyday life

LO 2 **Discuss the nature of decisions and the decision-making process.**

We make many decisions every day. For example, we decide when to get out of bed each morning (sometimes prompted by our parents!); we decide the appropriate clothes to wear for the coming day's activities (influenced by our peers); we decide what to eat for breakfast, unless we are in too much of a hurry, in which case we make another decision to go without breakfast.

Decisions involve choices because it is not possible to do everything we might like to do, as time and resources are always limited. Some decisions can be made in no time at all with little thought, such as putting on a coat if the weather is cold, but others may require much thinking, planning and information gathering, such as choosing a career, buying a house or a car, moving from one city to another, going on an overseas trip, choosing which subjects to study at university, and deciding when to retire from active employment.

Sometimes, decisions made in haste can affect us adversely for the rest of our lives. Each decision we make has outcomes which then affect decisions to be made at a later time. Ultimately, the decisions we make, or the decisions made by others which affect us, determine our destiny in life. Decisions affect our appearance, our economic wellbeing, even our emotional and spiritual wellbeing, so it is important that we make decisions after careful consideration of all information available at the time.

Steps in decision making

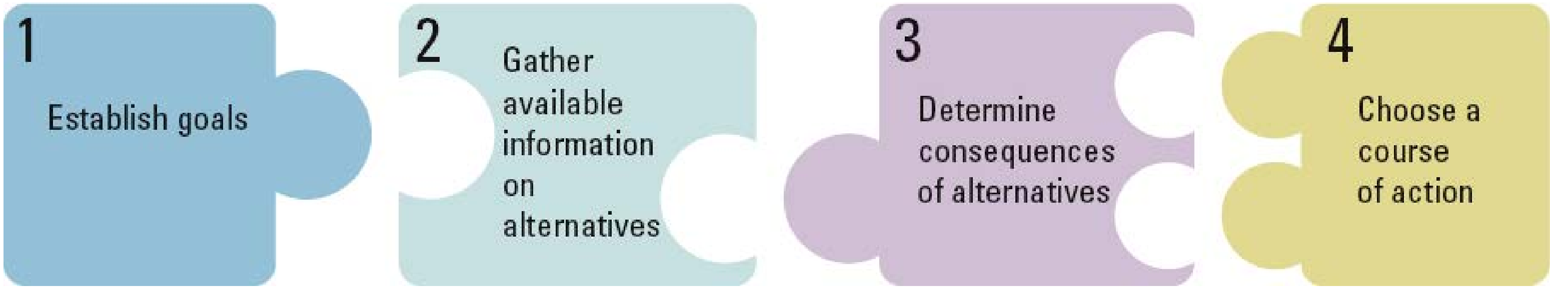
In ***simple*** terms, a **decision** is the making of a choice between two or more alternatives. Every time a problem arises and we need to make a decision, we consciously or unconsciously follow four main steps, which can be framed as questions.

1. ***What are we trying to achieve?*** We must identify each situation in which a decision is needed and determine the goals we wish to achieve. The decision we make will be influenced by our values, motives and desires.
2. ***What information do we need?*** Information can help change our attitudes, beliefs or expectations. Information relevant to each decision helps us determine the alternatives available from which to choose given the time, resources and degree of effort that we are prepared to commit to making a choice.
3. ***What are the consequences of different alternatives?*** Having obtained information to help us determine the alternatives available, we then need to assess the consequences or outcomes of these alternatives. Since the outcomes of each alternative lie in the future, every decision we make involves a degree of uncertainty, which means that there is an element of risk in achieving a desired outcome. For example, even a decision to take out car insurance involves a degree of risk as we balance the likelihood of causing a car accident with the cost of the insurance premium.
4. ***Which course of action will we choose?*** Finally, after consideration of the alternatives available and the consequences of those alternatives, we must choose a course of action which we hope will

achieve the goals that we established in the first place.

The steps in the decision-making process are illustrated in figure 1.1.

Figure 1.1 Steps in the decision-making process



Once we have made a choice, we find eventually a set of actual outcomes or consequences. We may be satisfied or dissatisfied with these outcomes. If we are dissatisfied, we may need to make further decisions to achieve our ultimate goals. Hence, the outcomes or consequences of decisions commonly lead to further decisions, which in turn have further outcomes, and so on.

LEARNING CHECK

☐ The decision-making process involves four main steps: (1) establishing goals, (2) gathering information on alternatives, (3) determining the consequences of alternatives, and (4) choosing a course of action.

1.3 Economic decisions

LO 3 **Outline the range of economic decisions made in the marketplace.**

Many (if not most) of the decisions that we make involve the use of **economic resources**. These are resources that are traded in the marketplace at a price because they are in limited or scarce supply. Some decisions are made for ***consumption*** purposes, such as what to eat for lunch and which brand of petrol to buy for the car. Other decisions are made for ***investment*** purposes. These decisions usually require major uses of resources, such as the decision to buy a car or a house. In business, some decisions require the investment or commitment of many millions of dollars for the purchase of large items of machinery. Still other decisions are of a ***financial*** nature; for example, if a business wants to make an investment decision to purchase new machinery, a decision must be made to find a source of finance.

However, even though the economic aspects of decisions are very important, other factors must also be considered, and may be more important than economic factors in a particular circumstance:

- ***personal taste*** — our decision to buy a certain brand of clothing may be determined on the basis of preferred appearance or fabrics rather than price
- ***social factors*** — such as the impact on unemployment in the local community if a business decides to withdraw from that community
- ***environmental factors*** — such as the potential for carbon emissions or water pollution
- ***religious and/or moral factors*** — our decision not to purchase particular types of meat may depend on religious beliefs
- ***government policy*** — such as the prohibition of trade in certain types of drugs.

Economic decisions usually involve a flow of money. We may purchase goods for immediate cash payment, on EFTPOS, or on credit, in which case the flow of money occurs at a later date than the flow of goods. The use of credit card facilities allows businesses to sell merchandise or provide services to us and to collect money from our bank, which then charges the cost to our account. Purchase of goods and services through the use of EFTPOS facilities or through the Internet also allows a business to charge the cost to our bank account, which means that the flow of money may occur at a different time from the flow of goods and services.

Individuals and business entities make economic decisions in many different marketplaces. The marketplace with which we are all familiar is the retail market, where we make decisions as we buy groceries, mobile devices, cars, home furnishings and electrical goods. Then there is the wholesale market, where retailers decide to buy their supplies of goods in large quantities from various manufacturers for sale in their different retail outlets. Another popular market is the stock market, where individuals and business entities buy and sell shares, debentures and options. Even the flea market is a place where people make decisions to buy and sell merchandise, some of which they have handcrafted, others of which are second-hand. Services also are traded in a marketplace.

BUSINESS KNOWLEDGE

Job demand high in Asia

Qualified accountants have a long history of travelling to the UK and US for the career and lifestyle experiences on offer. While this trend is still occurring, the global financial downturn has placed Asia in the spotlight as an international destination of choice for Chartered Accountants due to the variety of employment opportunities on offer and the lifestyle reasons, and the chance to experience new cultures in Asia.

Given the ongoing weakness of the US and UK economies, global organisations are far more confident of investing in Asia than other parts of the world. There is a growing number of multinationals entering Hong Kong and Singapore, while those with an established presence are expanding operations to capitalise on opportunities in China. This creates demand for qualified Chartered Accountants.

China is the economic powerhouse of Asia, and the rate at which multinationals are entering the market is driving demand for Chartered Accountants in areas such as audit, management accounting and financial analysis. ‘New career opportunities for professional accountants are abundant, especially in major cities such as Beijing, Shanghai and Guangzhou where many multinational companies set up their offices . . .’ says Jesaline Huang, manager, Michael Page Finance China.

Global companies are also looking to southeast Asia as a core growth market. Singapore is regarded as a logical business hub with a well-qualified workforce and the required infrastructure to support international business activities. Government tax incentives have further encouraged multinationals to set up regional headquarters in Singapore and this is also having a positive effect. The sectors showing the highest levels of jobs growth are financial services, pharmaceutical and health care. Chartered Accountants are predominately needed for the international reporting and management of corporate finance. Opportunities are available for accounting professionals with experience in International Financial Reporting Standards (IFRS), Basel and accounting policy.

As a world-class business centre on the doorstep of China, Hong Kong is of particular strategic importance for companies looking to capitalise on emerging opportunities in China. Hong Kong also offers one of the lowest personal tax rates in the world, which is a compelling financial incentive to work there.

Source: Excerpts from Michael Page International 2011, ‘Job demand high in Asia’, 22 December, www.charteredaccountants.com.au.

Economic decisions may be made not only in the local marketplace but also in markets in different cities, states or countries. Many organisations have been prepared to establish places of business not only in the home country but also in overseas countries.

Hence, whenever an economic decision is to be made, there are many aspects and alternatives to consider, and this makes the decision-making process a fascinating study in itself. How do people in business organisations make decisions? What role does accounting play in the decision-making process? If decision makers are able to gain a certain level of accounting knowledge and understand the concepts and standards on which accounting information and reports are based, this will help them make more informed economic decisions, regardless of whether they are engineering, marketing, human resource, or any other business decision makers. In the scene setter at the start of the chapter, Simone Taylor, as an accountant, has been confronted with making many decisions about the design of reporting systems and structures to cope with the expansion of the OrotonGroup into Asia and into apparel.

LEARNING CHECK

- ☐ Economic decisions are made for consumption purposes, investment purposes and/or financial purposes.
- ☐ Various factors must be considered when making economic decisions such as: financial aspects, personal taste, social factors, environmental factors, religious and/or moral factors, and government policy.
- ☐ Individuals and business entities make economic decisions in many different marketplaces, including the retail market, the wholesale market and the stock market, both locally, nationally and overseas.

1.4 The nature of accounting

LO 4 **Explain the nature of accounting and its main functions.**

Accounting is a service activity. Its function is to provide and interpret financial information that is intended to be useful in making economic decisions. Business entities, government departments, charitable organisations and not-for-profit organisations, family units and individuals all engage in economic activity which involves making decisions about allocating available resources effectively. People need relevant information to be able to make sound economic decisions.

In a complex society, decision makers have to rely on data supplied by specialists in various fields. For example, lawyers provide information about the ramifications of existing and changing legislation, and medical practitioners offer advice about the possible effects of different healthcare decisions. Accounting as a profession has evolved in response to society's need for economic information to help people make economic decisions. The accountant's main role is to be involved in steps 2 and 3 of the decision-making process illustrated in figure 1.1 (p. 6), to offer advice regarding step 4, and to measure the outcomes or consequences of the decision-making process. However, as you will see once you have studied accounting more closely, much of the information needed to make an economic decision never makes its way into the accounting records, but exists outside of those records.

Accounting is often called the 'language of business'. A language is a means of social communication and involves a flow of information from one person to one or more other people. Everyone involved in business, from the beginning employee to the top manager, eventually uses accounting information in the decision-making process. To be effective, the receiver of the information must understand the message that the sender intends to convey. Accounting uses its own special words and symbols to communicate financial information that is intended to be useful for economic decision making by managers, shareholders, creditors and many others. As you study accounting, you must learn the meanings of these words and symbols if you are to understand the messages contained in financial statements. The end-of-chapter key terms build up this language progressively as you proceed through the book.

The importance of understanding accounting information is not restricted to those engaged directly in business. Many people with little knowledge of accounting must interpret accounting data. For example, lawyers must often understand the meaning of accounting information if they are to represent their clients effectively, marketing consultants must be aware of the costs of developing advertising campaigns, and engineers and architects must consider cost data when designing new equipment and buildings. Thus, accounting plays a significant role in society and, in a broad sense, everyone is affected by accounting information.

Although accounting techniques are used in all types of economic units, in this book we concentrate mainly on accounting for business entities. Business owners and managers need information provided by the accounting system to plan, control and make decisions about their business activities. In addition, shareholders, creditors, government departments and not-for-profit organisations (such as clubs and societies) need financial information to help make investing, lending, regulatory and tax-related decisions.

Accounting defined

Accounting has been defined as the process of identifying, measuring, recording and communicating economic information to permit informed judgements and economic decisions by users of the information.

Identification involves observing economic events and determining which of those events represent economic activities relevant to a particular business. Selling goods to a customer, paying wages to employees and providing services to a client are examples of economic activities. Economic events of an entity are referred to by accountants as **transactions**, and are of two types, external and internal. Accountants use the single term ***transaction*** to refer to both internal and external transactions. Transactions constitute the inputs of the accounting information system.

External transactions (often called ***exchange transactions***) are those that involve economic events between one entity and another entity. When an entity purchases goods from a supplier, borrows money from a bank, or sells goods and services to customers, it participates in external or exchange transactions. ***Internal transactions*** are those economic events that take place entirely within one entity. For example, when a car component is transferred from the stores department to the assembly line in a car manufacturing business, the transfer must be accounted for, even if it is by simply transferring the cost of the component from the records of one department to those of the other. Similarly, the depreciation of machinery used in the production of goods must be accounted for, and since it does not concern an outside party, it is an internal transaction. Internal transactions may even involve such things as the growth of grapevines held by the entity or market value of trading securities, because, under certain accounting standards, the increased value of these items must be recognised in the accounts of the organisation.

Measurement must take place before the effects of transactions can be recorded. If accounting information is to be useful, it must be expressed in terms of a common denominator so that the effects of transactions can be combined. We cannot add apples to oranges unless we express them in terms of a common measuring unit. In our economy, business activity is measured by prices expressed in terms of money. ***Money*** serves as both a medium of exchange and as a measure of value, allowing us to compare the value or worth of diverse objects and to add and subtract the economic effects of various transactions. Accounting transactions are therefore measured and recorded in terms of some monetary unit, such as the dollar.

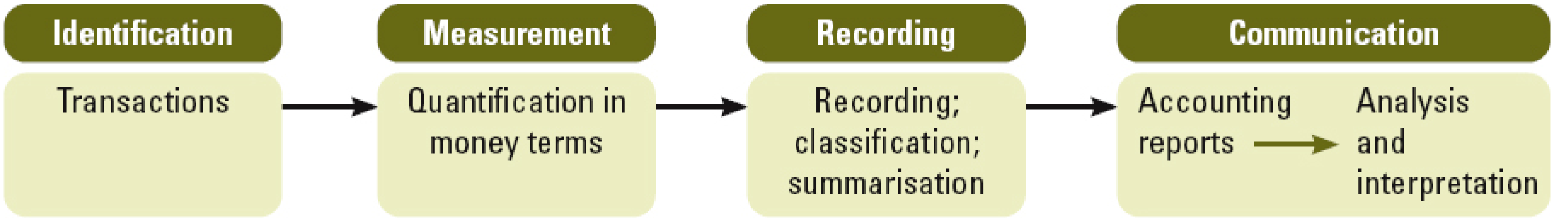
Recording provides a history of the economic activities of a particular entity. Recording is the process of systematically maintaining a file of all transactions which have affected the business entity after they have been identified and measured. Simply measuring and recording transactions, however, would provide information of limited use. The recorded data must be classified and summarised to be useful in making decisions.

- Classification allows thousands of transactions to be placed into more meaningful groups or categories. All transactions involving the sale of goods, for example, can be grouped into one total sales figure and all transactions involving cash received can be grouped to report a single cash receipt figure.
- Summarisation of financial data is presented in reports and financial statements, which are provided for use by both management and external users of accounting information. These reports usually summarise the effects of all transactions occurring during some time period such as a month, a quarter or a year.

Communication is the final part of the accounting process. Identifying, measuring and recording economic activities are pointless unless the information contained in accounting records can be communicated in some meaningful form to the potential users of the information. Communication can be described as the process of preparing and distributing accounting reports to potential users of accounting information. Once the users of accounting reports have access to appropriate reports, they are able, after analysing and interpreting the reports, often with the assistance of professional advice, to make informed economic decisions. The most common forms of accounting reports are the financial statements, which are introduced in chapter 2.

The accounting process briefly overviewed above can be summarised diagrammatically as shown in figure 1.2.

Figure 1.2 The accounting process



Many people with little knowledge of accounting tend to view it as being limited to the recording process and do not distinguish clearly between the recording and communicating of accounting data. The ***recording*** or ***record-keeping process*** involves measuring and recording business transactions and may take place in one of several forms: handwritten records, mechanical or electronic devices, or simply magnetic tapes or disks in a computerised system.

The ***communication process*** is a much broader function of accounting. It consists of placing accounting data that have been classified and summarised into financial statements, as well as preparing interpretive disclosures necessary to make the data understandable. The process requires extensive training, business experience and professional judgement.

Computers have had a significant impact on the recording phase of the accounting process. The processes of recording, classification and summarisation can be done electronically, and hence the recording process is much more automated. However, the output from a computerised system is only as good as the data that is inputted. Full coverage of the manual system is given in this text to help understand the processes performed by computerised accounting systems. An introduction to computerised accounting systems is given in chapter 7.

The communication process involves many potential users, and accountants who prepare reports must have a full appreciation of who the users of the reports are and their needs for accounting information in order to help them make economic decisions effectively. In this way, the accountant adds significant value to the running of the organisation.

LEARNING CHECK

☐ Accounting is defined as the process of identifying, measuring, recording and communicating economic information so that people can make informed judgements and decisions about scarce resources.

☐ Accounting deals with ‘transactions’, which can be ‘external’ or ‘internal’. External transactions are those that involve economic events between one entity and other entity. Internal transactions are those economic events that take place within one entity.

1.5 Users of accounting information

LO 5 **Identify the potential users of accounting information.**

Although accountants are involved mainly in the analysis and interpretation of financial data when they serve as advisers to users of accounting information, the first objective of accounting is to provide information in reports which can be used by ***internal*** and ***external*** decision makers.

Managers (internal decision makers) must have financial data for planning and controlling the operations of the business entity and hence need answers to such questions as:

- How much profit is being earned?
- What products should be produced?
- What resources are available?
- What is the most efficient production process?
- How much does it cost to reduce carbon emissions from the production process?
- What will be the effect of increasing or decreasing selling prices?
- How much is owing to outsiders?

Will cash be available to pay debts as they fall due?

- What are the benefits of purchasing an asset as opposed to leasing it?

Providing data to help answer these and many other questions is an accounting function generally called ***management accounting***. The data are presented to management in the form of **special purpose financial statements**. These are prepared for users who have specialised needs and who possess the authority to obtain information to meet those needs. Apart from internal management, including marketing, production, finance, human resources, research and development, information systems and general managers, some external users such as banks and government agencies (e.g. Australian Taxation Office) also have the authority to command the type and nature of the information they require and hence can demand special purpose reports.

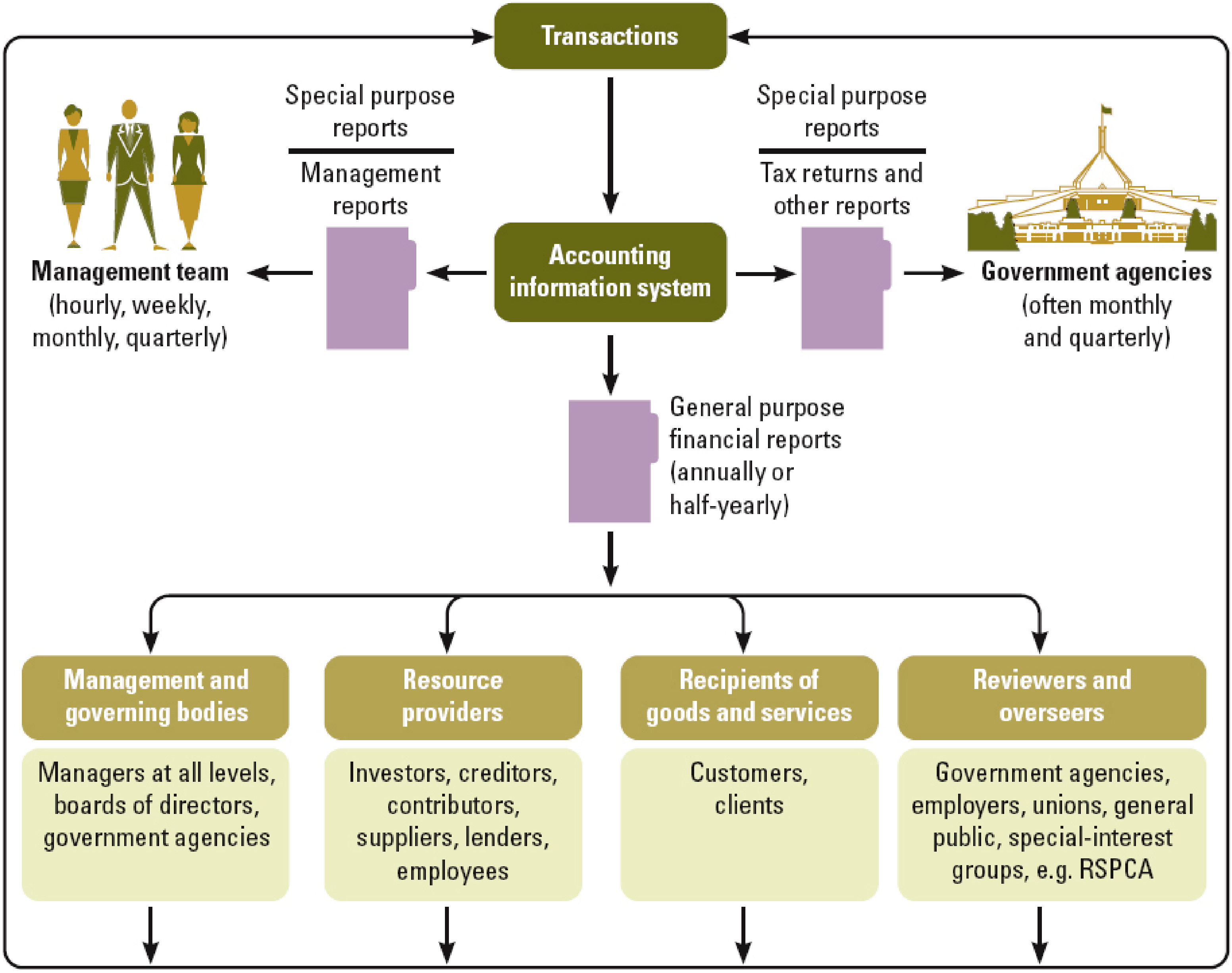
External decision makers such as resource providers (creditors and investors), recipients of goods and services (customers) and reviewers and overseers of business entities (employers, unions, government agencies) need accounting information for making decisions concerning granting credit, investing, purchasing goods and services, and complying with tax laws and other regulatory requirements. Questions raised by external users include:

- Should I invest money in this business?
- Am I likely to be paid my wages?
- Will the business be able to repay money lent to it?
- What are the company's earnings prospects?
- Is the business financially sound?
- Is the business providing products that are socially and environmentally friendly?

Reports prepared for external users include ***financial statements*** which generally consist of an income statement (also called a statement of comprehensive income), a balance sheet (also called a statement of financial position), a statement of changes in equity and a statement of cash flows. These are often called **general purpose financial statements** because they provide general information for use by all external users.

General purpose financial statements are designed to meet the information needs of a wide range of users who are unable to command the preparation of reports tailored to satisfy their individual specific needs for information. Figure 1.3 illustrates the relationship between financial statements/reports and users of accounting information.

Figure 1.3 Financial statements and users



LEARNING CHECK

- ☐ Internal decision makers — managers — require special purpose financial statements to help in planning and controlling the operations of an entity.
- ☐ External decision makers — creditors, investors, customers, employees, unions, government agencies — receive general purpose financial statements to obtain information about an entity. These are designed to meet the information needs of a wide range of users who are unable to command the preparation of statements tailored specifically for their needs.

1.6 Using information in economic decisions

LO 6 Apply information to make basic economic decisions.

Economic decisions are made in business every day. To illustrate, consider the following business scenario.

Cynthia loves beauty therapy. After several years in retail as a sales assistant, she decides to accept a redundancy package from her employer and take on a new career. She now has the opportunity to work in her own beauty business. On investigation, she finds there is an opportunity to set up such a business to service a number of local suburbs in her area.

First she will need to invest in the following items of equipment with their estimated costs:

Second-hand van	$32 000
Massage tables	2 500
Manicure tables and chairs	1 950
Booking information system	2 600
Facial skin machine	2 150
Manicure and pedicure machines	1 600
Waxing pots	1 700
Uniforms	2 000
Towels	2 400
Robes	1 800
Cash register	1 850
	$52 550

Therefore, Cynthia needs approximately $53 000 in cash to establish the business.

She is unsure about the running costs of the business, but expects the cost of power, beauty products and laundry to be about $320 per week. She is hoping to be able to provide services to about ten clients per day, and to work for 6 days each week. She wants to work only 48 weeks of the year and have 4 weeks holiday. Furthermore, she intends to pay $150 per week to her boyfriend, Fred, for keeping the records, doing the banking, and helping with some of the maintenance duties. (For the time being, we are ignoring employer superannuation payments, workers compensation and insurances, but in reality these would need to be taken into account.) Thus, running costs per week are estimated to be:

Power, beauty products and repairs and maintenance	$320
Part-time employee (Fred)	150
	$470

Initially, Cynthia expects to have the following numbers of clients for the various services she intends to provide:

Waxing (under a regular program)	42
Facials, manicures and pedicures (under a regular program)	12
Spray tans (as requested)	24

Based on this client list, each day she plans to perform waxing services on seven clients, and facials, manicures and pedicures on two clients. She expects that the waxing will take, on average, 30 minutes per client; facials, manicures and pedicures will take 1 hour per client; and spray tans will take about 15 minutes per client. The cost of each of the services is:

Waxing	$40
Facials, manicures and pedicures	80
Spray tans	10

In each week, the approximate amount of cash received, ignoring spray tan activities which are requested on an irregular basis, is expected to be:

7 waxes for each of 6 days at $40 each	$1 680
2 facials, manicures and pedicures for each of 6 days at $80 each	960
	$2 640

This means that her gross annual turnover for the year’s work of 48 weeks is equal to $2640 × 48 = $126 720, plus spray tan revenue. Because her annual turnover is greater than $50 000, her accountant tells her that she will have to get an Australian business number (ABN) from the Australian Taxation Office (ATO) and that she will be required to collect goods and services tax (GST) from each of her clients and forward the GST to the ATO at regular intervals. Also, the approximate cost she will pay to her accountant for preparing the annual tax return and GST documents is $1632. On a weekly basis over 48 weeks, this adds $34 per week ($1632 ÷ 48) for accounting services to the $470 per week calculated previously, a total of $504 per week. (Detailed consideration of the GST is covered in later chapters. It is assumed in this chapter that the figures quoted include the GST where applicable.)

Therefore, the expected weekly cash flow, excluding spray tanning revenue, is $2640 less the weekly costs of $504, equalling $2136. Since Cynthia is so enthusiastic about owning her own beauty salon, after consultation with Fred she decides to proceed with the business. Thus, a decision is made after considering how much money she will need to contribute to set up the business (financing activity), the equipment she will need to buy (investing activity), the running costs of the business and the weekly cash inflow (operating activity).

Note that the decision is based on the steps illustrated in figure 1.1 — establishing goals (earning a living while working as a beauty therapist) collecting information about the proposed business, and considering the future consequences of conducting such a business. Of course, many of the factors considered in making such a decision are estimates of future events and, hence, there is a need to proceed with caution. Cynthia would be very wise to keep a careful eye on how well these cash flow estimates approximate reality.

Particularly important are the financial results. Will the actual weekly performance of Cynthia's business live up to the estimated performance? How much impact does the spray tanning service have on the actual results? Is the waxing service more profitable than the facial, manicure and pedicure service or spray tan service? When does Cynthia plan to replace the assets she bought at the start? How will she account for the fact that these assets gradually wear out over time and through use? And how much income tax and GST will she have to pay? Cynthia may not have considered many of these aspects in making her decision, and much of this information can be provided by an accountant.

In the next four chapters, we shall consider other examples of service businesses — Minh's TV Repairs and Intellect Management Services — and consider how accounting information can help in the businesses' operations and decision making. We shall also return to Cynthia's beauty business and ask further questions which accounting can help to answer.

LEARNING CHECK

☐ Many questions need to be asked when making economic decisions. A decision to set up a business can be made only after considering things such as how much money will be required to start (investing activity), what equipment will be needed (investing activity), the running costs of the business and the weekly net cash inflow (operating activity).

☐ Many of the factors considered in making an economic decision are estimates of future events, and financial results will need to be monitored to see whether the cash flow estimates approximate reality.

1.7 Accounting information and decisions

LO 7 **Describe the role of accounting information in the decision-making process.**

From the example above, we can see that much financial information is needed before an economic decision is made. But how much of that information is accounting information? Since accounting is concerned mainly with identifying transactions and recording the financial history of the transactions of an entity, a major focus of accounting information is on actual financial events, not on future events. However, knowledge of information about actual events is useful in establishing relationships which are likely to hold in the future. In other words, for the purpose of decision making, past information is used often as a guide to future estimates of the consequences of different alternatives.

Accounting information is also very useful in providing decision makers with information about the outcomes or results of their decisions. Once these outcomes are known and investigated, decision makers are able to evaluate whether their decisions were correct or whether new decisions are required. The accountant can help significantly in investigating, interpreting and communicating these results for the guidance of decision makers. In this way, accountants can add value by pointing out to decision makers any areas needing attention, where new economic decisions become necessary.

Nevertheless, the accountant in commerce is also heavily involved in the budgeting process for a business entity, and therefore in estimating the future plans for the entity. Thus, the work of the accountant in commerce is not restricted merely to recording a history of the entity's past. The accountant adds value by helping the owners and managers of a business in many ways. In some businesses, the accountant has the title 'information manager' or 'finance manager'.

The information needs of managers are quite different from those of parties external to the entity. By definition, a manager is anyone in an organisation responsible for the work of other people who report to the manager for direction and support. The managers in a given organisation are collectively called its management.

LEARNING CHECK

- ☐ A major focus of accounting information is on actual financial events, not on future events, and therefore accounting does not provide all information needed for making an economic decision.
- ☐ Accountants are often heavily involved in the budgeting process for a business entity, and in estimating the financial data for the future plans of the entity, so the accountant adds value by helping owners and managers in many ways.

1.8 Management and financial accounting

LO 8 **Compare accounting information for management and external users.**

What is management accounting?

Management accounting (also referred to as managerial accounting) is that area of accounting concerned with providing financial and other information to all levels of management in an organisation to enable them to carry out their planning, controlling and decision-making responsibilities. The accountants responsible for providing this information are known as management accountants. Management accounting is used in all forms of organisations — for-profit and not-for-profit organisations; sole traders, partnerships and companies; retailing, manufacturing and service businesses; government; and charities.

Management accounting covers many activities, including cost behaviour and cost–volume–profit relationships, decision making through incremental analysis, capital budgeting, budgeting for financial planning and control, flexible budgeting for performance evaluation, the determination of manufacturing costs and costing systems, and accounting and reporting for business segment operations.

What is financial accounting?

Financial accounting is concerned with reporting information to users external to an entity in order to help them to make sound economic decisions about the entity's performance and financial position. The financial accountant is heavily involved in the determination of an entity's overall financial performance (profits or losses), its financial position, financing and investing activities (which include raising and investing money), and information as to whether the entity is complying with the requirements of the law. The financial accountant must be well trained in the regulatory arrangements affecting various entities; such regulations include accounting standards, auditing standards, the law relating to corporations and other types of organisations, and the law relating to taxation (including income tax, fringe benefits tax and GST). Through financial accounting, an entity discharges its financial reporting obligations and other corporate governance responsibilities to the community at large.

Management accounting versus financial accounting

Management accounting can be distinguished from financial accounting in a number of ways: by reference to (1) the main ***users*** of the reports, (2) the ***types of reports*** produced, (3) the ***frequency of reports***,

(4) the ***content and format of reports***, and (5) ***external verification***. Table 1.1 summarises the differences between management accounting and financial accounting.

Table 1.1 Differences between management accounting and financial accounting

	Management accounting	**Financial accounting**
Users of reports	***Users are inside the entity:*** • managers • chief executive officers • general managers • account managers • sales managers	***Users are outside the entity:*** • shareholders • lenders • potential investors • creditors • customers • government • interest groups
Types of reports	***Special purpose financial statements for internal users:*** • financial budgets • sales forecasts • performance reports • cost-of-production reports • incremental analysis reports Do not have to comply with accounting standards	***General purpose financial statements for external users:*** • balance sheet • income statement • statement of changes in equity • statement of cash flows Required by regulatory authorities; must comply with accounting standards
Frequency of reports	On-demand reports — daily, weekly, monthly — as requested by management to help with decision making	Income tax legislation, the corporations law and securities exchange listing rules require reports at regular intervals
Content and format of reports	• Management establishes own guidelines for structure, content and type of information (financial and non-financial); structure and classification of reports are tailored to specific needs of decisions to be made • Reports can relate to particular segments of an entity or to a particular decision	• Structure and content are largely standardised with certain disclosures dictated by accounting standards • Statements generally contain historical, verifiable data • Reflect the results of the entity as a whole, thus contain much aggregation, summarisation and restricted classification • Based on the formal double-entry system (see chapters 3–7)
External verification	Special purpose financial statements are not required to be audited, but management may want verification of the contents by internal auditors	General purpose financial statements must be audited by independent external auditors who verify that the statements are in compliance with accounting standards and provide a true and fair view of the performance and financial position of the entity

LEARNING CHECK

☐ A management accountant provides information to all levels of management in an organisation. Management accounting includes cost behaviour, capital budgeting, financial planning and control, determination of manufacturing costs and costing systems, and accounting and reporting for the activities of business segments.

☐ A financial accountant is concerned with reporting information to senior management and users external to an entity so they can make sound economic decisions about the entity. Financial accounting is concerned with the entity's overall financial performance, its financial position, its financing and investing activities, and whether the entity is complying with the law.

1.9 Accounting as a profession — Australian perspective

LO 9 Summarise how the accounting profession is organised in Australia.

Accounting has developed as a profession over the past hundred years or so, attaining a status equivalent to that of law and medicine. The profession in Australia is self-regulating and there are three professional associations of accountants — CPA Australia, Institute of Chartered Accountants in Australia (ICAA) and the Institute of Public Accountants (IPA) — of which you can become a member. There are many other professional associations of accountants (e.g. Malaysian Institute of Accountants, Association of Chartered Certified Accountants (ACCA), Chinese Institute of Certified Public Accountants, Chartered Institute of Management Accountants (CIMA), New Zealand Institute of Chartered Accountants (NZICA)). Consistent with the globalisation of business, many of these associations operate globally to service their members in various countries. For example, CPA Australia has offices throughout Australia, Asia and also in London. Even if you are a member of a professional accounting association, there are certain additional legislative requirements to provide particular services. For example, it is necessary to register as a company auditor in order to practise auditing for a company. People providing taxation services for a fee in Australia are required under taxation law to be registered as tax agents with the Tax Practitioners Board, an agency of the Australian Government.

Entry to the Australian professional accounting bodies varies. The traditional entry pathway is to hold a degree or postgraduate accounting qualification from a tertiary institution accredited for entry purposes by the particular professional body. Before full membership status is granted, additional accounting professional studies must be undertaken in addition to having practical experience and/or participation in a mentoring program. Upon completion, a member is then referred to as a **certified practising accountant** or **CPA** in CPA Australia, or as a **chartered accountant** or **CA** in the ICAA, or a **member** or **MIPA** in the IPA. CAs and CPAs are required to undertake a certain level of continuing professional development activities each year to maintain their level of membership. For further information on the membership pathways and requirements, visit the website of CPA Australia (www.cpaaustralia.com.au), the ICAA's website (www.charteredaccountants.com.au), and the IPA's website (www.publicaccountants.org.au).

Accountants generally practise in three main areas: public accounting, commercial accounting and not-for-profit accounting.

LEARNING CHECK

☐ The accounting profession in Australia is self-regulating and is largely controlled by three major professional associations of accountants — the Institute of Chartered Accountants in Australia (ICAA), CPA Australia and the Institute of Public Accountants (IPA). Entry to these bodies requires the possession of an appropriate qualification, further study and practical experience.

1.10 Public accounting versus commercial accounting

LO 10 Identify the different areas of the economy in which accountants work.

Public accounting

Public accountants run businesses which offer their professional services to the public for a fee. These vary from small businesses to very large international organisations with several thousand employees. Because of the complexity of today's business structure and increasing regulation by government, members of public accounting businesses tend to specialise in one of four general services: auditing and assurance services, taxation services, advisory services, and insolvency and administration.

Auditing and assurance services

Auditing has traditionally been the main service offered by most public accounting businesses. An **audit** is an independent examination of a business entity's financial statements, supporting documents and records in order to form an opinion as to whether they comply with certain levels of quality, as specified in accounting standards, and present a true and fair view of the entity's performance and financial position. Banks and other lending institutions often require an audit by an independent accountant before making a loan to a business. Companies that offer their shares for sale normally prepare a set of audited financial statements, and annual audited statements must be presented thereafter if the shares are traded through a stock exchange. External users who rely on financial statements in decision making place considerable emphasis on the auditor's report. It is essential, therefore, that auditors are independent observers in carrying out their duties.

These traditional audit services are changing — the role of the auditor is becoming one of providing 'assurance services'. **Assurance services** are defined as 'independent professional services that improve the quality of information, or its context, for decision makers'.[1] This change in role is driven largely by the availability of online real-time information which results in less demand for historical information. More emphasis is being placed on the detection of fraud and commenting on whether the entity has sustainable practices and is appropriately placed to remain as a going concern. The auditor is required to report on the 'credibility' of information.

Examples of assurance services in which auditors are becoming involved include:

- ***assessment of risk*** — evaluates whether an entity has appropriate systems in place to effectively manage business risk
- ***business performance measurement*** — evaluates whether an entity's accounting system contains measures to assess the degree to which an entity is achieving its goals and objectives, and how the entity's performance compares with its competitors
- ***information systems reliability*** — assesses whether the entity's accounting system provides reliable information for making economic decisions
- ***electronic commerce*** — assesses whether electronic commerce systems provide appropriate data integrity, security, privacy and reliability
- ***sustainability audits*** — independent assessment of compliance with environmental requirements and the assessment of risks and preventative or corrective actions. For example, the assurance of carbon emissions and water reporting[2]
- ***health care and care of the elderly*** — provides assurance on the effectiveness of health care and elderly care facilities provided by hospitals, nursing homes, and other carers.

Taxation services

Few economic decisions are made without considering the tax consequences. Accountants provide advice concerning the tax consequences of business decisions. Individuals and business entities have to collect or pay various forms of taxes including income tax, capital gains tax, fringe benefits tax, goods and services tax, local government rates, and other taxes. Accountants are often engaged to help in tax planning to minimise the tax liability of the business, consistent with the rules and regulations established by taxing agencies. Accountants also are often called on to prepare tax returns, including business activity statements (BASs), required by law. To offer such services, accountants must be thoroughly familiar with tax laws and regulations. They must also keep up to date with changes in tax law and court cases concerned with interpreting tax law, which occur frequently. As many businesses now operate globally, detailed knowledge of the tax laws of many overseas countries is also useful.

Advisory services

Although audit and tax services have traditionally been the main activities of public accountants, advisory services are very important today. Accountants provide advice on overcoming detected defects or problems in a client's accounting system. Public accountants offer a wide range of advisory services, including advice on such events as installation of computer systems, production systems and quality control; installation or modification of accounting systems; budgeting, forecasting and general financial planning; design or modification of superannuation plans; company mergers and takeovers; personal financial planning; and advice for clients in managing deceased estates.

As a result of several well-publicised corporate collapses between 2000 and 2002, it has been argued that auditors may not be independent from their client firms. Hence, the Australian Government has taken steps to address this lack of independence in fact or appearance by introducing rules related to providing non-audit services to a client firm and the rotation of auditors. Auditors are required by law to be independent of the client and must declare their independence annually. Audit firms must also disclose all of the non-audit services provided to their client firms. Furthermore, auditors of companies should be rotated every 5 years, and there should be a 2-year delay before a former auditor can become an officer of an audited client.[3] In some countries (e.g. United States), an audit firm is prohibited from providing both audit services and non-audit services to client firms.

Insolvency and administration

Public accountants are also employed in helping businesses with trading difficulties. Some businesses have difficulty in paying their short-term debts as they fall due, which means that they are becoming illiquid. If an entity cannot pay its long-term debts, the entity is said to be **insolvent**. Public accountants are employed to help businesses administer their recovery from trading difficulties or insolvency, if possible. However, if recovery is not possible, accountants then assist in the winding-up of the business's affairs. In the case of the company form of business organisation, such a wind-up is referred to as **liquidation**.

Accountants in commerce and industry

Many accountants are employed in business entities, such as Simone Taylor in the chapter scene setter. The entity's chief financial officer (CFO) has overall responsibility for directing the activities of accounting personnel. In a large company, the CFO may have several assistants, each with assigned responsibility for various accounting functions. These accountants are commonly referred to as management accountants.

General accounting

One function of the accountant in commerce and industry is to oversee the recording of transactions undertaken by the business entity and to prepare reports specially tailored for use by management in their planning, control and decision-making activities. The transaction data must be classified and summarised appropriately for the preparation of financial statements for external distribution. It is difficult to draw a clear line of distinction between general accounting and the other phases of commercial accounting because the accounting data recorded from transactions form the basic database from which other phases draw relevant information for planning, controlling, decision-making and reporting purposes.

Cost accounting

Cost accounting deals with the collection, allocation and control of the costs of producing specific products and services. Knowledge of the cost of each manufacturing process and each service activity is important in making sound business decisions. If management wants to know whether the production and sale of a product or service is profitable, it must know the cost of that product or service. Large manufacturing entities have employed several accountants in their cost accounting departments over time, but with the increased use of accounting packages in business, much of the routine work of capturing accounting information is now carried out by computerised information systems.

Accounting information systems

Commercial accountants also may be heavily involved in designing both manual and computerised accounting information systems. Once systems have been designed and installed, their operation is constantly monitored for improvements and system maintenance. Developments have occurred in the design of accounting systems for e-commerce. Integrity of data and privacy issues are of paramount importance.

Budgeting

Budgeting is the phase of accounting that deals with the preparation of a plan or forecast of future operations. Its main function is to provide management with a projection of the activities necessary to reach established goals. Budgets are generally prepared for the business entity as a whole as well as for subunits. They serve as control devices when used in conjunction with performance reports, which measure actual results for the period. Budgets also are used in assessing the efficiency of operations.

Taxation accounting

Businesses are assessed for a variety of taxes — including income tax, capital gains tax, GST and fringe benefits tax — all of which require the preparation of periodic reports to the various taxing agencies. Tax effects must be considered in every investment and financing decision made by management. Although many businesses rely on public accountants for some tax-planning advice and tax-return preparation, many large companies also maintain a tax accounting department to deal with day-to-day tax accounting issues and problems.

Internal auditing and audit committees

To supplement the annual audit by the external auditor, many organisations also maintain an **internal audit** department. Its main function is to conduct ongoing reviews to make certain that established procedures and policies are being followed. Thus, any deficiencies can be identified and corrected quickly. An efficient internal audit process can also reduce the time required by the external auditors in conducting their annual audit, often producing significant cost savings.

During the 1990s, many companies in Australia established an audit committee, often in response to growing public pressure for greater accountability by management brought on by several major corporate collapses. The existence of an audit committee was made mandatory in some overseas countries, e.g. the United States, Canada and Singapore, but not in Australia.[4] In Australia, the Australian Securities Exchange has insisted that companies disclose in their annual reports whether they have an audit committee, and if not, explain why.

An audit committee acts as a corporate governance device in order to:

- safeguard the independence of the internal audit process
- ensure continual improvement in management performance and accountability by seeking any necessary action as a result of adverse reports provided by internal and external auditors.

To be effective, audit committees are encouraged to have a long-term strategy as a means of ensuring that an entity's overall financial plans are put into action. In this way, members of the audit committee can have an important role to play as part of an organisation's management team.[5]

Not-for-profit accounting

Another area of activity employing many accountants is not-for-profit accounting. City councils, shire councils, state governments and the federal government collect and spend large amounts of money annually. Elected and appointed officials have ultimate responsibility for the collection and efficient use of the resources under their control. Many of the problems and decisions faced by government officials are the same as those encountered in private industry, but accounting for not-for-profit entities may require a different approach in some respects because of the absence of a profit motive. Government accounting is concerned with the efficient use of its resources, consistent with the provisions of city, shire, state and federal laws. Other not-for-profit organisations (churches, hospitals, charities, clubs, private educational institutions) also have specialised accounting needs.

So far, this chapter has presented a basic introduction to decision making and to the nature of accounting, its purpose and its fields of specialisation. Accounting is applicable to all types of economic entities, including not-for-profit entities, which engage in making economic decisions. The rest of this book, however, concentrates largely on accounting methods used for making economic decisions in business entities that have a profit motive. Nevertheless, throughout the book, selected exercises and problems applicable to not-for-profit entities are provided.

LEARNING CHECK

☐ Accountants generally practise in three main areas:
- public accounting — offering services to the public, such as auditing and assurance, taxation, financial advice, and insolvency and administration
- commercial accounting — where accountants are employed by business entities, and are involved in general accounting, cost accounting, accounting information systems, budgeting, taxation, and internal auditing
- not-for-profit accounting — the absence of the profit motive often requires a different accounting approach; for example, government accounting is concerned with the efficient use of resources consistent with the provisions of laws.

1.11 Ethics and accounting

LO 11 Identify the importance of ethics in business and accounting and how to recognise and handle ethical dilemmas as part of the decision-making process.

In the 1990s, ethics and moral behaviour in business received a great deal of attention from the media, professional associations and regulatory bodies, particularly those concerned with the operation of companies and the conduct of company directors. The early 2000s in Australia saw the collapse of a number of large business and financial institutions, causing huge monetary losses and hardship to shareholders and policy holders. Incidences of such collapses continue today. This has increased the pressure from the community to improve the ethics of all people working in business. Most professional bodies have laid down some form of code of ethical and moral behaviour.

BUSINESS KNOWLEDGE

Survey finds most SMEs shun professional advice, possibly at their peril

SME owners favour ‘gut instinct’ above all, rank accountants most trusted external adviser.

Small business owners are prone to a ‘lone wolf’ approach in decision-making, with the vast majority much more likely to trust their own instincts over advice from family and friends, their business partner and even most professional advisers, according to new research.

The findings are based on a survey of more than 1000 Australian owners of small-to-medium enterprises (SMEs) commissioned by accounting software provider CCH, a unit of global information services group Wolters Kluwer.

With ABS data showing that more than half of small businesses in Australia do not survive beyond their first four years, the CCH survey revealed a cavalier attitude among SME owners toward the value of professional business advice.

Only 26% of respondents considered the failure to seek professional advice to be a factor in business failure, while 70% trusted their 'gut instinct' over any professional advice.

When pressed on which external adviser they trusted most, SME operators nominated their accountant ahead of their financial planner, business partner or lawyer. They were least likely to turn to their family and friends for financial and business advice.

CEO of Wolters Kluwer Asia Pacific, Russell Evans, said the findings suggested SME operators guarded independence of decision-making closely, but could be too willing to back their own instincts ahead of sound professional advice.

'It's not surprising a small business owner will micromanage, especially in the early stages of their business life, but this should not be at the expense of being open to advice from trusted professionals,' he said.

In contrast to the response from SME owners, a separate CCH survey of more than 210 accountants servicing small businesses ranked bad business models as the main reason SMEs fail. This view is backed up by ASIC data on 5600 business failures in 2011–12, showing poor strategic management to be the most common cause of failure (19%), with another 15% of failures attributed to poor financial control. CCH's survey found SME owners typically open up to the advice of their accountant as their businesses grow. SME owners with a higher turnover ($1m+) were more likely to consider their accountant as their most trusted adviser, not only for transactional accounts but for advice on business growth, than owners of businesses with turnover under $1 million. Older SME owners were also more likely to rank their accountant as their most trusted adviser (47% of owners aged 50+ compared to 31% of owners aged 18 to 34).

Source: CCH 2013, 'Survey finds most SMEs shun professional advice, possibly at their peril', 11 April, www.cch.com.au.

Ethics in business

Most businesses today appreciate the importance of ethical behaviour in all their business dealings. In order for a business entity to function effectively, all people working in the entity have to be honest, abide by the rules and 'do the right thing'. If managers, owners, employees and customers regularly deceived one another, told lies, falsified records and did not conform to the rules, the entity must eventually collapse and cease to exist. A high standard of ethical behaviour is thus in the long-term interest of business entities.

It is sound economic policy to have a business highly regarded by the whole business community for its reputation for honest and straight dealings, quality products and service. Most of the highly successful businesses today are noted generally for their high ethical standards of business. Financial statements are one of the many control mechanisms designed to assess the accountability of management and protect the interests of parties who have an interest in the performance of a particular business entity. The reports enable an evaluation to be made of a company's management performance, and provide information on the establishment of contracts, business dealings and resource allocations. The audit and assurance services function of accounting also represents a controlling influence in maintaining ethical behaviour in business entities.

Ethics and professional accounting bodies

The standing of the profession and individuals within the profession depends on the highest level of ethical conduct by members. The professional accounting bodies in Australia have recognised this, and in 2006 both CPA Australia and the Institute of Chartered Accountants established an independent body called the Accounting Professional & Ethical Standards Board Limited (APESB) to set and maintain a code of ethics by which accountants who are members of these bodies must comply. More recently, the Institute of Public Accountants has also become a member of the APESB. According to the website of the APESB (www.apesb.org.au) the APESB's vision is to be recognised by their stakeholders for their leading contribution in achieving the highest level of professional and ethical behaviour in the accounting profession. To achieve this vision, the APESB will:

- issue professional and ethical standards that are integral to the Australian accounting profession

be innovative in engaging key stakeholders, including professional accountants and the public
- influence the international standards agenda
- advocate for professionalism and ethical conduct to drive the behaviour of accountants.

The professional and ethical standards include but are not limited to:

- code of ethics for professional accountants
- miscellaneous professional statements and joint guidance notes
- such other ethical issues or similar matters of interest in respect of the accounting profession.

The code of ethics establishes the fundamental principles of professional ethics and provides a conceptual framework for applying those principles. Members of the professional accounting bodies are expected to adhere to various aspects of professional accounting activities, including competence; conformity with the law, accounting standards, and auditing and assurance standards; confidentiality of client information; and independence.

Ethics in practice

As a graduate, you will undoubtedly enter the business world as an accountant, an employee, a manager, a marketer, a consumer, or in some other capacity. As a future professional in the business world it is important that you appreciate the importance of ethical behaviour, have an appreciation of ethical issues and dilemmas that may arise, are able to analyse the consequences of unethical behaviour, can identify the stakeholders (i.e. those who are affected by the unethical behaviour), and can identify the correct course of action to follow.

The ability to choose the correct course of action always, and being seen to be ‘doing the right thing’ always, will not necessarily be easy. In the world of business, many personal and business pressures are experienced which make ethical behaviour a considerable challenge. There are no widely held, generally accepted codes of ethics or rules of ethical business behaviour. The resolution of ethical issues and dilemmas is greatly influenced by personal attitudes, personal problems and personal financial problems, pressure within the workplace (e.g. superior–subordinate relationships and peer pressure), and the pressure of meeting deadlines.

In order to provide practice in analysing, evaluating and resolving ethical issues that may arise in the workplace, an ethical case is included at the end of many chapters in this book. In analysing these cases, you will be required to identify the ethical issue(s) involved, resolve the issues by analysing the key elements involved, including who are the major stakeholders who stand to benefit or be disadvantaged by the situation, and then select the appropriate course of action. In some cases there will be one obvious correct resolution — in others there may be a number of ethical resolutions which may require further analysis to arrive at the most ethical outcome.

An examination of the significance of ethical issues that challenge professional accounting bodies is studied by Jackling et al. (2007).[6] The study assesses the perceptions via an online survey of 66 professional accounting bodies worldwide in respect of ethical issues, potential causes of ethical failure and the need for ethics education. Key ethical risks suggested are:

- self interest
- failure to maintain objectivity and independence
- improper leadership and poor organisational culture
- lack of ethical courage to do what is right
- lack of ethical sensitivity
- failure to exercise proper professional judgement.

The important challenges identified by respondents include conflicts of interest, earnings management and whistleblowing. The survey findings also suggest strong support for participation in prescribing the nature of ethics education by members of professional accounting bodies and the importance of teaching ethics, in addition to technical skills, in accounting curriculum.

LEARNING CHECK

☐ A high standard of ethical behaviour is in the long-term interests of business entities. Financial reports are one of the many control mechanisms designed to assess the accountability of management.

- The professional accounting bodies in Australia have set down rules of professional conduct for members which prescribe high standards of practice in many areas including competency, compliance with the law and accounting standards and auditing and assurance standards, confidentiality and independence.

KEY TERMS

Accounting, p. 8
Assurance services, p. 17
Audit, p. 16
Budgeting, p. 19
Certified practising accountant (CPA), p. 16
Chartered accountant (CA), p. 16
Cost accounting, p. 18
Decision, p. 5
Economic resources, p. 6
Financial accounting, p. 14
General purpose financial statements, p. 11
Insolvent, p. 18
Internal audit, p. 19
Liquidation, p. 18
Management accounting, p. 14
Member (MIPA), p. 16
Special purpose financial statements, p. 10
Transactions, p. 8

DISCUSSION QUESTIONS

1. You are considering buying an apartment. Outline the information you would like to assist you to make this decision. Identify how much of this information is accounting information.
2. Simone Taylor (in the scene setter, p. 3) is involved in helping to make many different types of decisions as part of her employment. List examples of the types of consumption, investment and financing decisions she would be involved with.

3. Accounting is described as the language of business, and everyone is affected by the business world. Discuss if everyone should be required to study accounting.
4. Describe the differences between accounting information and other information.
5. ‘Accounting is irrelevant in decision making because the information it provides relates only to the past.’ Evaluate this remark.
6. Describe how you would identify if a financial statement is a special purpose financial statement or a general purpose financial statement.
7. Users of accounting information can be identified as internal and external users. List examples of users in each category and the type of information they require.
8. Distinguish between the work performed by public accountants and the work performed by accountants in commerce and industry and in not-for-profit organisations.
9. List some of the fields (other than financial reporting) that have opened up to accountants in recent years.
10. Regulators are concerned with external auditors providing advisory services to a client at the same time as providing auditing services to that client. Explain why this is a concern.
11. Discuss the actions taken by regulators in Australia, the United States and China to address auditor independence concerns.
12. ‘When one examines the distinctive and different functions of financial and management accounting, it

is obvious that to maximise the usefulness of the information derived, two systems of accounting are necessary. It does not matter how large or small the entity is, it is just common sense that one system cannot do the job.' (An assertion made by a recent management graduate.) Evaluate this assertion.

13. Describe what it means to behave ethically.

14. 'Accounting is all about numbers'. Evaluate.

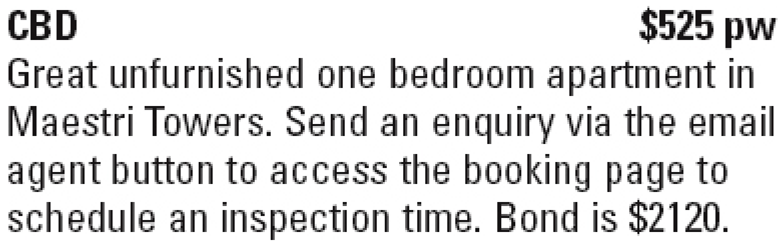
EXERCISES

Exercise 1.1 INFORMATION FOR DECISIONS **LO 2**

Ian Boardman has been appointed as the loans officer for the local community bank. One day, a person walks into the bank looking for a loan to buy a new car. List six items about that individual that Ian should find out before deciding whether to approve the loan. Classify these items as 'economic' or other (specify). Which type of information is more important for the purposes of good decision making?

Exercise 1.2 INFORMATION FOR DECISIONS **LO 6**

Tran Qu's family lives in Beijing, China. She has been accepted into a university course in Sydney, and has to find accommodation in the city within walking distance of the university, or at least be close to public transport. She searches the Internet to find suitable accommodation and comes across the following apartment:


CBD **$525 pw**
Great unfurnished one bedroom apartment in Maestri Towers. Send an enquiry via the email agent button to access the booking page to schedule an inspection time. Bond is $2120.

Required

A. Discuss how this information may help Tran make a decision.
B. List additional information Tran would need before deciding whether to rent this apartment.

Exercise 1.3 INFORMATION FOR DECISIONS **LO 6**

Renee Carter has decided to study medicine at a university in Melbourne. She has arranged to stay with a family on the north side of the city. In order to get to and from the university, she decides she will need to buy a car, costing a maximum of $10 000. She searches the Internet and comes across the following at Car City:


MAZDA 323 Red, 4D Sedan; 5 SP Manual;
2.0 Ltr, 4 cycl; odometer 153 293.

Required

A. Evaluate how useful this information is in arriving at a decision.
B. List extra information that Renee should ascertain before deciding whether to buy this car.
C. Assume that Renee does purchase the car, and subsequently finds that the car has mechanical problems which will require $2000 to fix. Discuss what she should do, given that she does not have enough money to pay for the repairs.
D. Hypothesise as to how ethical the community regards used car salespeople.

Exercise 1.4 CHOOSING A UNIVERSITY MAJOR **LO 6**

You have just enrolled in a course in business at the Western University. There are several specialty areas, one of which you must choose — accounting, business law, economics, finance, management, marketing, information systems. The choice you make is important as it will affect your future; hence, you must give careful thought to this decision.

Required

A. Identify two possible specialty areas in business that interest you.
B. Set down your goals and personal preferences in selecting a business major. Identify the factors which will help you make this decision, and specify the factors which are most important to you.
C. Establish a set of criteria which must be met before making a decision about your appropriate specialty area.
D. Determine the sources of information you will need to make such a decision.

Exercise 1.5 MAKING AN ECONOMIC DECISION LO 2

You have decided that now is the time to buy a new laptop. List the factors that are important in choosing a new laptop and gather relevant information from various sources about different models on the market. Given that you have a maximum of $1600 to spend, identify which model you would buy and discuss the reasons for your choice. Present your answer so as to illustrate the steps required in the decision-making process as discussed in this chapter.

Exercise 1.6 FACTORS IN MAKING A BUSINESS DECISION LO 2, 3

Consult the business section of a local newspaper, or ***The Australian Financial Review***, or a business journal, such as ***Business Review Weekly*** (***BRW***), and find an appropriate article detailing an important business decision that has been made in the last month. Based on the article, determine the factors that were taken into account in arriving at the decision. Discuss the effects that such a decision will have on various interested parties or stakeholders.

Exercise 1.7 FACTORS IN MAKING A GOVERNMENT DECISION LO 2, 3

Consult a local newspaper, ***The Australian Financial Review***, or a business journal, such as ***BRW***, and find an appropriate article detailing an important federal government decision in the last month. Based on the article, determine the factors that were taken into account in arriving at the decision. Discuss the effects that such a decision will have on various interested parties or stakeholders.

Exercise 1.8 ECONOMIC DECISIONS MADE BY MANAGEMENT LO 3

Accounting provides much information to help managers make economic decisions in their various workplaces.

Required

List examples of economic decisions that the following people would need to make with the use of accounting information:

- a marketing manager
- a production manager
- the Chief Executive Officer of a national football league
- the manager of a second-hand clothing charity.

Exercise 1.9 CHOOSING AN ACCOUNTING CAREER LO 10

After reading the chapter, discuss the areas in which accountants work, and indicate which area(s) you find most interesting and/or familiar. If you intend to pursue a career in any one of these areas of accounting, discuss the types of decisions and advice that you believe you will be involved in making and giving.

Exercise 1.10 SETTING UP A BUSINESS LO 2, 6

Luigi and Gina Cicello have decided to lease some newly built premises for the purpose of opening a seafood outlet. They intend to provide a wide range of different products, including a variety of seafood for sale and take-away fish and chips.

Required

Discuss the types of economic decisions they will be required to make, and the information they will need to make those decisions. Distinguishing non-economic and economic information, identify non-economic decisions that they will also be required to make. Discuss why Luigi and Gina may require the services of an accountant.

Exercise 1.11 BECOMING AN ACCOUNTANT **LO 9**

Read the article from ***InTheBlack*** below and answer the questions below.

Required

A. Compare the entry requirements to become a full member of CPA Australia, Institute of Chartered Accountants in Australia and the Institute of Public Accountants. Identify the commonalities and differences.

B. Discuss why the professional accounting bodies would have different entry requirements.

C. Identify what qualifications are required to:

  1. be a company auditor
  2. be a public accountant
  3. be a financial adviser
  4. prepare tax returns.

New pathways to business success

As you may know, our 2009–2011 corporate plan established the importance of having a globally competitive CPA Program and broadened entry pathways. With this in mind, CPA Australia has for a long while now been working on making the CPA Program more focused and competitive and appropriately opening up entry routes to becoming a CPA Australia member. Last month CPA Australia celebrated the launch of the new entry pathways to the CPA designation along with the revised CPA Program. These changes will create more opportunities for potential members to attain the CPA Australia designation and become part of one of the world's largest accounting bodies.

The revised CPA Program syllabus addresses the needs of employers and will provide candidates with a highly valued and global designation. The program is a rigorous education and experience program. It consists of 14 subjects along with integrated workplace learning. CPA Australia has maintained the same high standards of competence that have always been required to achieve the CPA designation.

The new pathways to membership will welcome people who want a career built on professional accounting skills — in Australia and around the globe — and who have the desire, appropriate level of competence, and the professionalism and integrity to carry the CPA Australia designation. In addition to recognising the prior learning and experience that potential members bring, we are providing more options for graduates from other disciplines and for candidates with gaps in their core knowledge to work towards becoming a CPA. This means that more aspiring business leaders will now be able to become members of our professional body. It is important, however, to note that to attain CPA status candidates must complete the Professional Level within six years of starting the CPA program and hold an eligible degree or higher education award.

The changes will enable us to become more relevant globally while retaining the highest professional standards and the quality of the CPA designation. And, importantly, they take us a step forward in the aim of realising our organisational vision: for CPA Australia to be the global professional accountancy designation for strategic business leaders.

Against the backdrop of an increasingly competitive global marketplace we must work harder and smarter than ever to realise this vision. The new entry pathways are vital to ensuring that the CPA Australia designation continues to be recognised by key stakeholders as a valuable asset.

Source: Petty, R 2009, 'New pathways to business success', ***InTheBlack***, August, p. 7.

Exercise 1.12 CONDUCT IN BUSINESS **LO 11**

Read the following prelude to NIKE's Code of Ethics by the President of NIKE, Inc. and discuss the points that follow.

Inside the Lines: The NIKE Code of Ethics

At Nike, we are on the offense, always. We play hard, we play to win, and we play by the rules of the game.

This Code of Ethics is vitally important. It contains the rules of the game for NIKE, the rules we live by and what we stand for. Please read it. And if you've read it before, read it again. Then take some time to think about what it says and make a commitment to play by it. Defining the NIKE playing field ensures no matter how dynamic and challenging NIKE may be, our actions and decisions fit with our shared values.

Thanks for your commitment.

Source: NIKE 2011, ***Inside the lines: The NIKE code of ethics — Defining the NIKE, Inc. playing field and the rules of the game***, http://investors.nikeinc.com.

Required

A. Check if there is a code of ethics to guide your behaviour as a student at your university.
B. Identify if the university that you are attending has a course on ethics in accounting or in business. Also find out whether this ethics course (if it exists) is compulsory in your degree.
C. If such a course exists, list the types of issues discussed in the course.
D. Referring to 'Inside the Lines' NIKE, Inc.'s code of ethics governing the conduct of all employees, identify the values employees should operate by as part of the NIKE team.
E. Assume that you are employed by NIKE Inc. Referring to the company's code of ethics, discuss how the code would guide your behaviour in the following situations:
   1. A retailer offers you an all-expenses paid holiday if he can have a special price on a runner soon to be released.
   2. You are aware that NIKE is shortly to announce a profit increase for the most recent reporting period and think that it would be a good time to sell some of your NIKE shares.

Exercise 1.13 EXPANDING THE ROLE OF THE ACCOUNTANT **LO 10**

Read the following article from ***Business Review Weekly*** by Anthony Bell, the owner of Bell Partners, an accountancy firm, and answer the questions that follow.

Innovation and trust

Right from the start of my career, I felt the incredible urge to do something that was different to that I had witnessed and personally experienced in the accounting profession.

I started my career in the early '90s and it was evident accounting was perceived to be a profession that spent most of its time and energy recording history, not making history.

Accountants and my university training were orientated towards the preparation of balance sheets and profit and loss statements or auditing historical financial reports.

While there was still a strong place for this (and there always will be) the opportunity for the future seemed to be creating an accounting firm that could apply its knowledge to business growth advisory, asset protection and profit improvement to name but a few.

It was this that I thought would be the next innovation in the accounting profession. Accountants were not really in the space of wealth creation and wealth advisory, they were leaving that service to other less qualified professionals, which also did not make much sense.

The new wave of accounting firm I wanted to be a part of was able to be entrepreneurial in its advice to its clients and provide cutting edge investment and wealth creation strategies.

Knowledge was always going to be the key to delve into this new era of accounting; however, I was aware that while our training at university and at the chartered accountants level was valuable, knowledge had to be found elsewhere.

And that source was my clients.

On the basis that success leaves clues, what better place to learn how to grow businesses, which structures worked and which structures didn't and brand and asset protection mechanisms than from my clients.

I became a sponge while working for my clients, learning the disciplines and traits that could assist my knowledge base — learning from the successes and mistakes that had been made real time.

I was blessed to represent at a young age some of the country's best known businesses and entrepreneurs and they became the source of our knowledge to apply for years to come.

The thing that I was hungry for was new work. At the start we had no budget for marketing or advertising to access new work.

Yet, the great clients I already had would also provide us with access to potentially new great clients.

So the commitment to my current clients was to do more than I got paid for, deliver better than expected results and provide a level of service that differentiated us from our competitors in the industry.

If I could get these three things right, the new clients that I would be hungry to act for would come by direct referral from the great people I already acted for.

All these years later, our growth is still achieved in the same way. After all, the only way to find out if your work is truly valued is by whether your clients are prepared, without prompting, to refer you on to their own business contacts as a trusted adviser.

Anyone can buy a client, there are always lots of firms for sale but I was of the view that if you had to do that, you weren't measuring or achieving growth the way you're meant to, which is organically.

The things I studied hard were the laws of attraction that would lead to growth. I also knew that reputation was so important because if you live by what your clients think of you and who they tell, then you can also die by the exact same mechanism.

It was the late'90s and fear and trepidation had to be cast aside and replaced with vision and determination. It is clear that back then we had nothing to lose and in some ways I wish that we all were able to continue with that 'nothing to lose' mentality.

Of course, if the business does achieve survival and success, is it only natural that its leaders have to contemplate the risk surrounding its progression. One thing I do know is that if I continue to attack the industry and do our work as hard and in the same way as I have since the late '90s, our business can be three times its current size in the future.

Source: Bell, A 2012, 'Trust and innovation', ***Business Review Weekly***, 2 February. www.brw.com.au.

Required

Discuss the areas of advice that Bell Partners offers to service its clients.

DECISION ANALYSIS

Choosing an accountant for a small business

After reading the following extract on the winner of the 2012 Best StartupSmart Awards for a service company, list the factors that would be important for someone like the owners of Explore Engage in making a decision about which accounting firm to employ. Also list the services that a business such as Explore Engage is likely to require of its accountant.

The winner of the 2012 Best Services Start-up in the 2012 Best StartupSmart Awards was Explore Engage. Profiled on the StartupSmart's website (www.startupsmart.com.au), the company profile reads as follows:

> Explore Engage specialises in augmented reality (AR) and interactive applications for mobile devices such as iPhones and tablets. It is also in the process of developing a pair of AR glasses. The company defines AR as real-time animation superimposed on each user's real-time view of the world, usually imposed through a camera device.
>
> AR solves marketing and utility problems by contextualising data or images for an informative or entertaining simulation, feedback, brand recall, in situ placement and a mixed reality. In doing so, it can assist in decision-making or simply create a 'magical experience'.
>
> Explore Engage is an international leader in AR, providing 3D experiences across advertising, marketing, gaming, retail and property. 'We saw an opportunity in the Australian market as there was no one specialising in AR. Also, with the emergence of the smartphone, we now have the capabilities to do AR,' Crane says. 'There was a need for advertisers, general consumers, B2B and B2C companies to use augmented reality.'
>
> The three founders funded the business by 'chasing down clients' and completing projects. They also received investment once it was established. O'Brien says the founders 'invested heavily from our own funds, gained seed funds and won projects to drive significant growth over the last 12 months.'
>
> While cashflow proved to be the most challenging part of starting the business, the best part of starting up is the 'ability to say you have started your own business and that it is going well'.
>
> Explore Engage is now looking to take its technology to the international stage. 'We are developing a pair of AR glasses that will change the way people consume media globally and interact day to day,' Crane says. '[Our goal is to] become one of the top three AR companies in the world.'
>
> ***Source:*** StartupSmart 2012, StartupSmart Awards 2012, www.startupsmart.com.au.

CRITICAL THINKING

Good marketing in bad times

Read the following extract from ***BRW*** (***Business Review Weekly***).

> One of the most common — and riskiest — reactions by company directors and executives to tough economic times is to slash the marketing budget. Some companies take the knife to their marketing expenditure in the mistaken belief that money spent on advertising, sales promotion, direct marketing and public relations is a cost, not an investment. Although marketers say that Australian company boards' understanding of the marketing function has improved greatly in the decade since the 1990–91 recession, too many companies are still ignorant of the risks they run by using the marketing budget as a sacrificial lamb.
>
> Smart companies know that a downturn offers an opportunity to increase their market share and seize on competitors' weaknesses. That does not mean allotting more funds to the marketing department, but the marketing focus should be honed as finely as possible. The key element is the customer: companies that understand their customers' needs in difficult economic times, that build relationships with them and convince them of a product or service's relevance to them, will survive and even flourish.
>
> The global director of marketing for government business at Accenture, Caroline Trotman, says not all company directors think that surviving a recession means cutting marketing expenditure; however, too many still see marketing as an early area of focus. 'Marketing is associated with spending rather than value in most directors' minds because they do not know how to measure the contribution of marketing. It is easy to cut because they cannot see how it relates to the bottom line.'
>
> The Victorian president of the Australian Marketing Institute, Roger James, agrees: 'It is really

unfortunate that marketing is viewed at board level as discretionary expenditure rather than key to the business's operation. Marketing needs to be presented to the rest of the business world as central to the functioning of business. It is seen as a support function to sales, but, of course, sales is just a part of the marketing process. Businesses facing tighter times should realise that there is an opportunity to gain market share when other companies are being more conservative. Now is the time to get out there and consolidate share through increased marketing activity…

'Brands, customers and information about them are the most valuable assets for a company in what I call the age of marketing. A recession is a perfect time for marketers to demonstrate that these are the assets you have to look after.'

The principal of the media planning agency bellamyhayden, Simon Bellamy, says a recession is an ideal time for smart companies to gain the upper hand. 'So many companies resort to doing less of the same, and as a result they lose a competitive opportunity. It is a common trait to resort to the tried and tested approach, safe and traditional, at a time when innovation and creativity is at its most important. The knee-jerk reaction simply to slash spending across the board without looking at ways of using that marketing expenditure differently is so dangerous. It is amazing how quickly brand equity slips, and you have to spend more to get it back when times improve.'

Source: Lloyd, S 2001, 'Good marketing in bad times', ***BRW***, 6 April, pp. 55–6.

Required

Assume you are a newly graduated marketing student. You recall from your studies that accounting plays a vital role in the decision-making processes of every commercial organisation. Your employer, the Trendy Tie Company, is suffering from a downturn in economic conditions, and in preparing the budget for 2015 they have reduced the marketing budget by 10%. The marketing manager suggests that if the budget cannot be increased to the previous year's level, then you will lose your job.

Using the article from ***BRW*** as a reference source, prepare a draft report for the marketing manager to submit to the company's accountants explaining why they should not reduce the marketing budget.

In drafting your report, explain why marketing might be considered an investment rather than a cost, why it is important from an accounting point of view, and how the funds could be used more effectively. You should also consider what is meant by 'brands, customers and information about them' being the most valuable assets of the company. Remember that the report is being written to the company's accountants and you must justify your position in terms of the best financial interests of the company as opposed to best marketing practice.

COMMUNICATION AND LEADERSHIP

Ethical dilemma

Within your tutorial group, organise yourselves into groups. Where possible organise the groups according to the professional majors that students are studying, such as groups of accounting, marketing, human resource management, economics and management students. Read the following ethical dilemma and discuss how you would respond to the situation described. Present your group's response to the class.

Auditing hidden agendas

All members of the accounting profession, regardless of their role, are required to comply with the fundamental principles contained in APES 110 ***Code of Ethics for Professional Accountants***. The first principle, integrity, requires members to be straightforward and honest in professional and business relationships. It is reasonable, and expected, that an audit committee will scrutinise key financial risks and the risk management processes, particularly in a dramatically changed business-lending environment. It is the responsibility of the audit committee, rather than the CEO, to determine the need to review future loan compliance reports before they are provided to lenders.

Dilemma: You are a member of an audit committee of a company that has experienced some volatility as a result of the recent financial crisis. You have just received the agenda for the first meeting in 2009 and, much to your surprise, there are no agenda items in relation to any impact the financial crisis may have had on your company. You are particularly concerned that the company may be at risk of default on some debt covenants. In addition, the scheduled quarterly compliance audit on the loan portfolio, which is required as part of the performance reporting to lenders, is not included.

You approach the chair of the audit committee and seek an explanation as to why these agenda items do not appear. The chair advises that he has raised the issue with the CEO and has had assurances that there are no matters that need to be discussed by the committee in relation to the current financial crisis. The CEO has also advised that the committee no longer needs to sign off on the loan compliance audits as these audits are at the request of the debt providers and not the committee.

You remain unconvinced by this assurance and are also concerned that the debt providers will assume the loan compliance audits are reviewed by the audit committee in accordance with past practice. You are also aware that the continuing support of the company's lenders is dependent on a favourable compliance audit.

Given your knowledge of the debt portfolio and the company's current performance, you are concerned that some figures may have been 'massaged'.

Source: Sexton, T 2009, 'Auditing hidden agendas', ***InTheBlack***, March, p. 63.

ETHICS AND GOVERNANCE

Ethical practices among friends

Two friends, Becks and Vicky, had just started university studies. Both intended to major in accounting. During the first week of lectures, Vicky, who had to go home for family reasons, asked Becks to buy a copy of the prescribed accounting text for her from the university bookshop. She left Becks $100 to cover the cost of the text currently selling in the bookshop for $80.

On the day Becks visited the bookshop to buy the text, he noted that there were a number of copies that had been returned to the shop by students who had managed to get second-hand copies. These returned copies had been marked down to $65 and looked new. Unable to resist a bargain, Becks bought a copy for $65.

Becks then realised that Vicky would not know that the text he had bought was a return and had been bought at a special price, and that he could give Vicky change of $20 and keep the savings on the text of $15 for himself. He simply had to tell Vicky that he had lost the receipt, and given the crowds in the bookshop on the day the text was bought, Vicky could not possibly learn that he had not bought a new copy of the text for her.

Required

A. Identify who the stakeholders are in this situation.
B. Outline the ethical issues involved.
C. Discuss what you would do if you were Becks.

FINANCIAL ANALYSIS

Refer to the latest financial statements of David Jones Limited on its website, www.davidjones.com.au. Browse through the chairman's and chief executive officer's reports, and the notes to the financial statements and address the following:

1. Describe the main activities and operations of the company.
2. Identify the company's chief executive officer and chief financial officer.
3. List any important investment or financing decisions made by the company during the year.
4. Summarise what the directors are declaring in relation to the information in the financial statements.
5. Assess whether David Jones complies with the Australian Securities Exchange Corporate Governance

Council (ASXCGC) Corporate Governance Principles and Recommendations.

6. Examine the independent auditor's report on the company for the year and address the following:

  (a) Identify the company's audit firm.

  (b) Specify what the auditors state in relation to the accounting information in the company's report.

  (c) Specify what the auditors state in relation to their independence.

7. Ascertain if the auditors received any money from the company for doing any work apart from conducting the audit.

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1. This definition first appeared in the Report of the Special Committee on Assurance Services (the Elliott Report), prepared by the American Institute of Certified Public Accountants. It has since been adopted by the ICAA and CPA Australia. For further information, see Paul Coram, 'Towards assurance services — redefining the audit role', ***Australian CPA***, November 1998, pp. 55–7.

2. See Simnett, R 2009, 'Getting the world on board', ***InTheBlack***, October, pp. 46–9; and proposed new guidance for practitioners conducting assurance engagements on general purpose water accounting reports in the Auditing and Assurance Standards Board's (AUASB) ED 04/12 ***Proposed Standard on Assurance Engagements ASAE 3xxx/Australian Water Accounting Standard 2 Assurance Engagements on General Purpose Water Accounting Reports***.

3. See ss. 324DA–DD of the Corporations Act, available at http://www.austlii.edu.au.

4. From 1 January 2003, the Australian Securities Exchange requires the top 500 companies listed in the S&P/ASX all ordinaries index to have audit committees under ASX Listing Rule 12.70.

5. See Couttas, G 2012, 'A new world for the audit committee', ***Charter***, September, p. 38.

6. Jackling, B, Cooper, B, Leung, P & Dellaportas, S 2007, 'Professional accounting bodies' perceptions of ethical issues, causes of ethical failure and ethics education', ***Managerial Auditing Journal***, vol. 22, pp. 928–44.

CHAPTER 2

Financial statements for decision making

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the steps used in the decision-making process (pp. 5–6)
- the nature of economic decisions (pp. 6–7)
- the nature of accounting and the users of accounting information (pp. 8–10)
- the use of information in economic decisions (pp. 11–13)
- the role of accounting information in the decision-making process (pp. 13–14)
- the differences and similarities between management accounting and financial accounting (pp. 14–15)
- the areas of business in which accountants are employed (pp. 16–20).

Learning Objectives

After studying this chapter you should be able to:

1 identify the common types of business entities (pp. 34–5)
2 discuss the functions carried out by managers (pp. 35–7)
3 outline the basic financial statements used in business to report to users for decision-making purposes (pp. 37–43)
4 explain the main assumptions made and the characteristics of information to be used in the preparation of financial statements (pp. 44–8)
5 analyse the effects of business transactions on the accounting equation and on financial statements (pp. 48–52).

Corporate reputation — Citizenship deficits limit reputations

In 2013, Ikea temporarily stopped serving all meatballs in its store restaurants after tests found horsemeat in its pork and beef meatballs. Many regarded this as fraud that impacted on the reputation of the company, noting that consumers should be able to trust that what is labelled on the package is inside the package and nothing else.

It's no longer enough for a company to make a profit, obey the law and keep shareholders happy. They must now consider the non-financial aspects of their business as they navigate a complex and changing set of economic, social and environmental challenges. They must work to earn public respect at a time when corporate reputations are increasingly fragile and have a clear impact on a company's valuation. They must strive to find new ways to motivate employees who want more than just financial rewards.

According to the Global Corporate Reputation Index (Romero & Cordasco 2012, p. 1), 'Even among the consumer companies with the strongest corporate reputations, citizenship continues to significantly lag performance indicating that most companies are still paying inadequate attention to this category despite the increasing role it plays in today's marketplace'. The index, based on in excess of 40 000 consumer interviews across six countries, found that technology companies have the strongest reputations overall with the banking and oil and gas industries having the weakest reputations. It is the latter industries that are often associated with negative press coverage and the relative youth of the former industry suggests that newer companies may be resetting the bar for what a strong reputation means. The top ranked companies include Adidas, Apple, Coca-Cola and Nestlé. For example, Adidas is commended for the design and innovation behind its technology, which uses up to 50% less material waste, emits fewer toxins, and reduces material use and CO_2 emissions from transport.

Reputation is one of the most important measures of corporate success. According to the Harris-

Fombrun Reputation Quotient, the value of a reputation can be as much as 40 per cent of a company's overall market value. It influences what we buy, and the appeal of a company to potential employees, investors and analysts.

Source: Excerpts from Cordasco, P & Romero M 2012, 'Global Corporate Reputation Index', http://issuu.com/bursonmarsteller.

Chapter preview

In this chapter, we introduce the different types of organisations that operate in business, their structure, and how they are managed. We describe also some of the basic financial statements prepared by the accountant, the assumptions made in preparing these statements, and the effects of transactions on the preparation of financial statements. These financial statements show business performance measured in dollar terms. Even though the scene setter argues for more emphasis on the environmental and social aspects of business, accounting has traditionally paid little attention to these aspects in assessing business performance.

2.1 Types of business entities

LO 1 **Identify the common types of business entities.**

In chapter 1 we introduced Cynthia's beauty therapy business. An important decision that Cynthia must make is how to structure her business. There are different types of business entities which may be formed. The three most common types for profit-seeking entities are sole traders (or single proprietorships), partnerships and companies.

A **single proprietorship** or **sole trader** is a business entity owned by one person. Many small service enterprises, retail stores and professional practices are operated as single proprietorships. The owner of a single proprietorship business contributes cash (or other assets) to the business, is entitled to all profits, and is legally liable for its debts. A sole trader is not a separate legal entity. From an accounting perspective, however, the business entity is treated as an entity separate from its owner, and accounting is done only for the affairs of the business entity. The owner's personal affairs and records are kept separate from those of the entity for accounting purposes.

A **partnership** is a business owned by two or more people acting as partners. No special legal requirements need be met to form a partnership. All that is necessary is an agreement among the people joining together as partners. Although the partnership agreement may be oral, a written agreement will help resolve disagreements which may arise between partners. The partners supply the resources and share the profits and losses.

Partnerships are not separate legal entities. Consequently, the individual partners are personally liable for the debts of the partnership. From an accounting perspective, however, partnerships are treated as entities separate from their owners. Like single proprietorships, partnerships are widely used for small service enterprises, retail stores and professional practices. Partnerships are covered more fully later in this book.

A **company** or **corporation** is a separate legal entity formed under the ***Corporations Act 2001***. Commonly, its owners are called **shareholders** and their ownership interests are represented by shares in the company. Given that a company is a separate legal entity, shareholders in a limited company are not liable for the company's debts once the shares they hold have been paid for in full. This feature is known as **limited liability**, which simply means that the liability of a shareholder to contribute to the assets of the company is limited to the amount unpaid on the shares held in the company. The word 'limited' (abbreviated to Ltd) is required by law to appear in the company name if limited liability applies to shareholders of that company. Further discussion of companies is provided later in this book.

Cynthia thus has three organisation structures from which to choose when setting up her beauty therapy business. She could conduct her business as a single proprietorship or sole trader, in which case she will be the sole recipient of any profits made by the business. Alternatively, she may choose to establish the business as a partnership with her boyfriend, Fred. Partners normally provide cash or other resources for the business, and share any profits made from day-to-day operations. If Cynthia and Fred decide that the business should be formed as a company, then a small company can be registered with an appropriate name. Cynthia and Fred will then become shareholders providing cash or other resources to the business and receiving any dividends from the company if profits are made. To help make the decision, Cynthia would be wise to consult a public accountant for advice, and she should make her decision carefully.

Although companies conduct the majority of business activity in Australia, sole traders are more numerous. Because of the relatively simple nature of the sole trader form, it is used as the basis for early discussion and illustrations in this book. Partnerships and companies and their special accounting problems are discussed later in this book.

Other forms of organisations include not-for-profit entities such as sporting clubs, trusts (family trusts or unit trusts), government enterprises and government departments. The structures appropriate to these entities are usually provided by the laws which lead to their establishment. Such laws can also impose special accounting and reporting requirements, which are found in accounting standards.

LEARNING CHECK

☐ The three types of organisations used in profit-making businesses are the sole trader (single proprietorship), partnership, and company (or corporation).

☐ The major differences between the three types of organisations are:

- A sole trader is owned by one person who is entitled to all the profits and is liable for its debts. From an accounting perspective, the owner’s personal affairs and records are kept separate from those of the entity.
- A partnership business is owned by two or more people and the partners are personally liable for the debts of the partnership. Accounting records of the partnership are kept separate from the personal records of each partner.
- A company is a separate legal entity owned usually by shareholders who, in a limited company, are not liable for the company’s debts once the shares they hold are paid for in full.

2.2 Management functions

LO 2 Discuss the functions carried out by managers.

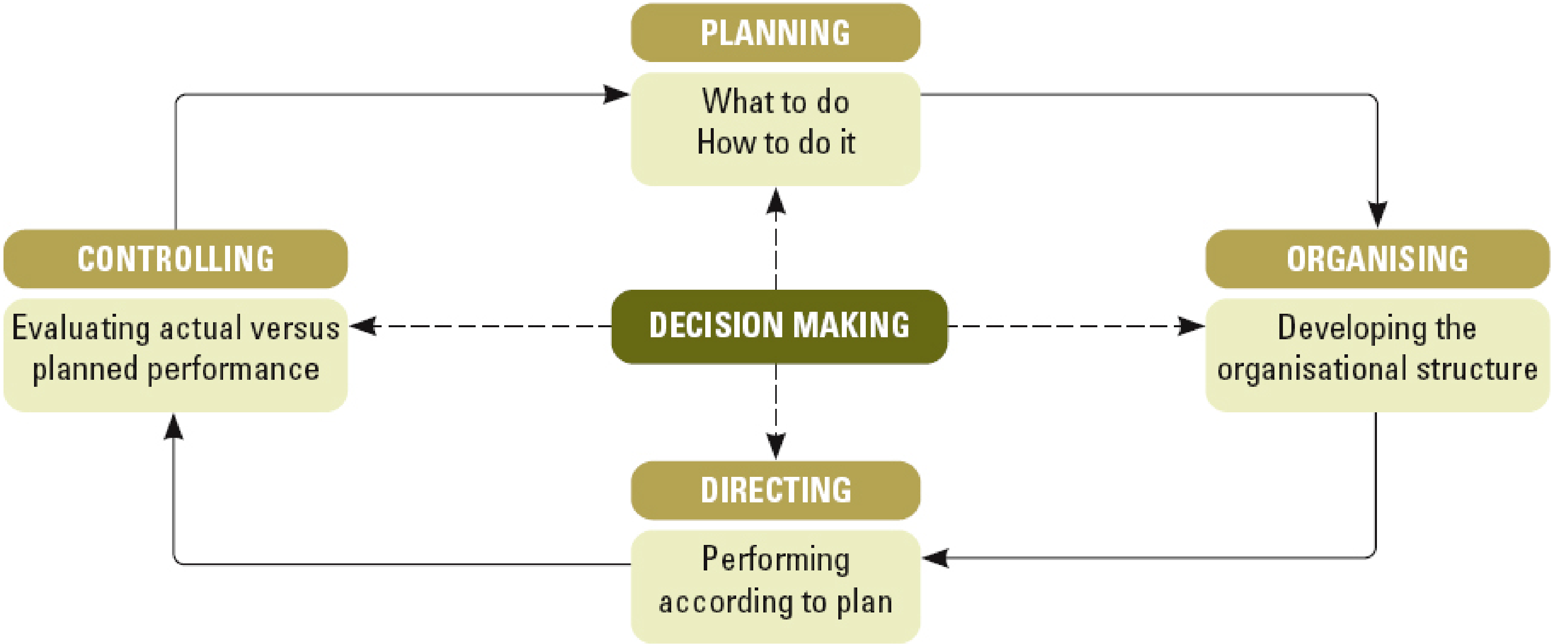
As mentioned above, the most basic form of business enterprise is a one-person business or sole trader. Its management and information needs are simple because all decision-making responsibilities for such functions as purchasing, selling, performing services, accounting and financing rest with the individual owner-manager. This simple situation, where the owner is responsible for and does everything, seldom exists, and if it does, it normally is found only during the initial stage of a business’s life cycle. As soon as the first employee is hired, a division of labour occurs and an organisation is born. An **organisation** is defined as a group of people who share common goals with a well-defined division of labour. The managers of an organisation need relevant information to integrate the activities of the various segments of the organisation and ensure that they are directed towards common goals. As an organisation develops in size and complexity, authority and responsibility for performance are delegated to a number of people. Consequently, the role of management becomes increasingly important. This is true for all service businesses, manufacturing businesses, banks, accounting businesses, hospitals, universities, retail stores, government departments or agencies, and charitable organisations.

Role of managers

A major goal of every business entity is to achieve satisfactory performance. The managers of a business are accountable to its owners for adequate profits as indicators of a successful operation. Even not-for-profit organisations such as charities must be certain that their expenses do not exceed their revenues in the long term. Every entity must accept the fact that its resources are limited and must be conserved if a satisfactory performance is to be achieved. Such factors as inflation, technological change, competition, government regulation, environmental and social issues, interest rates, increased power costs and declining productivity have an adverse effect on most entities' financial performance. As discussed in the scene setter to this chapter, managers and the accountant must also be mindful of performance in areas other than financial success. It is suggested in the scene setter that businesses should develop a good reputation by being good citizens and strong supporters of the community's social needs. This can be achieved by caring about people and the planet, in addition to profits. Developing a good reputation ultimately attracts strong customer support for the business's products and services.

If an entity is to be successful, its management must be efficient and effective. **Efficiency** means maintaining a satisfactory relationship between an entity's resource inputs and its outputs of products or services (e.g. the number of labour hours required to process a loan application or to produce a product). **Effectiveness** refers to how well an entity attains its goals (e.g. the number of services provided to customers compared with the number planned). Efficiency and effectiveness are outcomes of the **management functions** diagrammed in figure 2.1 and are essential to the overall success of any business. It is important to note that management functions are not always as sequentially dependent as figure 2.1 may suggest, since they often are performed concurrently and are constantly interacting with one another. The functions of the management decision process are examined below.

Figure 2.1 Management functions



Planning

A successful business entity plans for the future by carefully setting goals. Managers must decide what action the entity should take in the future and how it should be accomplished. Alternative courses of action are identified, their probable results are evaluated, and the course of action that will best achieve the entity's goals is selected. Planning is required so that managers can anticipate future events and be proactive rather than react to circumstances once they are known. Much of management planning is concerned with the efficiency and effectiveness of future operations.

Organising

Plans are only words and numbers on paper until they are implemented. The organising function provides the resource structure or capacity within which management works to achieve its plans. The entity may be divided into segments (such as departments, divisions, plants and offices) to take advantage of the specialisation of skills and abilities. Consider the case of a university and its division into faculties based on academic discipline areas to take advantage of the specialisation of skills and abilities. Dividing an entity into segments ensures the right people are hired, trained and assigned to specific jobs. Well-defined lines of authority and responsibility are established. Sources of resources (such as raw materials, supplies and advertising) are selected, physical facilities (land, buildings, machinery and equipment) are obtained, and finance is arranged to fund the operations.

Directing

This function deals with the day-to-day management of the entity. Actions, decision making, communication and leadership are combined to carry out the planned activities within the organisational structure. Problems are solved, questions are answered, disagreements are resolved and the various segments are coordinated.

Controlling

Managers must be sure that the actual performance of the entity and its segments compares favourably with the goals established during the planning function. If managers are to be held accountable for their performance, they should know where and why actual results differ from those planned. Control is based on the concept of **management by exception**, which recognises that, since management time is a scarce resource, the main concern should be for any performance that deviates significantly from the plan. A performance report is a type of financial report issued periodically to inform management of any significant variations from the expected results, so action can be taken to improve the efficiency or effectiveness of future operations, whenever possible. Some businesses have established internal audit committees, as discussed in chapter 1, to help management achieve its plans.

LEARNING CHECK

- ☐ An organisation is a group of people who share common goals with a well-defined division of labour. As an organisation develops in size and complexity, authority and responsibility for performance are delegated to managers.
- ☐ Efficiency means maintaining a satisfactory relationship between an entity's resource inputs and outputs of products or services. Effectiveness refers to how well an entity attains its goals.
- ☐ The four main functions of managers in running an organisation are planning, organising, directing and controlling.
- ☐ Management by exception recognises that, because management time is a scarce resource, the main concern should be for any performance that deviates significantly from planned performance.

2.3 Basic financial statements

LO 3 Outline the basic financial statements used in business to report to users for decision-making purposes.

Accounting, as we have seen in chapter 1, may be viewed as an information system designed to communicate financial information to interested users for making economic decisions. The final outcome of the accounting process is the preparation of a set of financial statements which serve to communicate important information to users both within and external to the business. Three types of information contained in financial statements serve to inform users about the entity.

Firstly, users want information about the entity's **financial performance**, that is, the ability to operate its assets efficiently and effectively in the conduct of its activities, whether for profit or not for profit. In order to assess performance, users need to be aware of the entity's overall objectives or goals. What is the entity trying to achieve? Is it trying to make profits for its shareholders, or does it have a social goal, such as alleviating hunger in a particular overseas country? For a business entity, information about its ability to earn profits is an essential part of its financial statements; however, the achievement of its social and environmental goals should not be overlooked. In a not-for-profit entity, its performance in achieving its stated goals may have little to do with the profit motive. For example, clubs exist for the overall enjoyment and satisfaction of their members, and aid organisations exist to help people in need receive a better education and have a more comfortable social existence.

The second type of information which users find necessary for making decisions about an entity or division is its **financial position**. The financial position of an entity, as discussed in the ***Framework for the Preparation and Presentation of Financial Statements*** (considered later in this book, and hereafter referred to as the ***Framework***), deals with the economic resources controlled by an entity, its financial structure, its capacity to adapt to changes in its environment, and its liquidity and solvency. The information which would help to assess these aspects includes the different types of assets held by the business, the amounts of money borrowed from other entities, the amount of cash or other assets supplied by the owner of the business, the time needed to repay borrowed money, the current state of repair of the entity's assets, the cost and fair value of these assets, and the possible sources of finance available to the business in an emergency. All this information is desirable to help users make informed economic decisions about an entity.

The third type of information that users find necessary for making decisions about the entity is information about the entity's cash flows. According to the ***Framework***, information about the entity's cash flows is useful in order to assess the entity's operating, investing and financing activities. **Operating activities** are those associated with the provision of goods or services. Typical operating activities for a business entity include collecting cash for services provided, selling goods to customers, purchasing goods for sale, paying suppliers for goods or services purchased, collecting from customers outstanding debts owed to the entity, paying wages to employees and paying income tax to the government. Some of these operating activities also arise in not-for-profit entities, and may be so reported in their financial statements. In Cynthia's beauty therapy business in chapter 1, the operating activities consist of her waxing, facial and spray tan services, and her costs for products, wages, and accounting services.

Investing activities in an entity are those associated with the acquisition and disposal of long-term resources used in the entity's production, selling or administrative tasks. For example, investing activities include purchasing an office building, constructing a factory, purchasing long-term investments, purchasing equipment or vehicles, and selling such long-term assets. In Cynthia's beauty business, investing activities consist of the purchase of the van, massage tables, and facial machines.

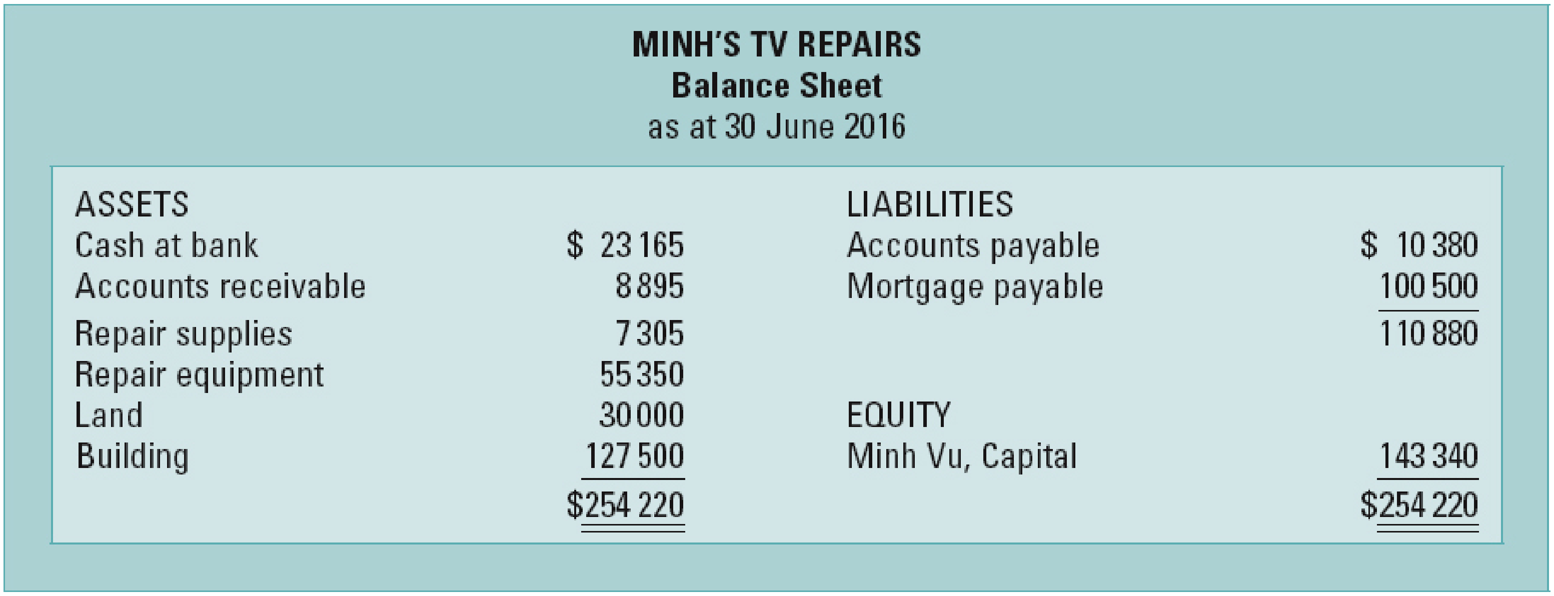
Financing activities are those which relate to the raising of funds for an entity to carry out its operating and investing activities. Examples of financing activities include raising capital by issuing shares, receiving more fees by attracting new members to a club, borrowing money from a bank or other financial institution, and repaying these borrowed funds. In Cynthia's beauty business, financing activities include the cash contributed by Cynthia to the business.

The basic financial statements prepared by an entity for internal users are an income statement (a component of a statement of comprehensive income), a balance sheet (also called a statement of financial position), a statement of changes in equity and a statement of cash flows. For reporting to external users, all statements purported to be general purpose financial statements must be prepared in accordance with the requirements of accounting standards. Reporting to external parties is discussed in more detail later in this book.

The balance sheet

The **balance sheet (statement of financial position)** reports the financial position of an entity or division at a specific point in time. The financial position is reflected by the assets of the entity, its liabilities or debts, and the equity of the owner. Figure 2.2 shows a simple balance sheet for a single proprietorship involved in providing repair services for television sets, Minh's TV repairs, as at 30 June 2016.

Figure 2.2 Balance sheet (account format)



MINH'S TV REPAIRS
Balance Sheet
as at 30 June 2016

ASSETS		LIABILITIES	
Cash at bank	$ 23 165	Accounts payable	$ 10 380
Accounts receivable	8 895	Mortgage payable	100 500
Repair supplies	7 305		110 880
Repair equipment	55 350		
Land	30 000	EQUITY	
Building	127 500	Minh Vu, Capital	143 340
	$254 220		$254 220

The heading of the balance sheet indicates the name of the entity, the name of the statement and the date. The basic statement is divided into three main sections: assets, liabilities and equity. In figure 2.2, the assets are listed on the left-hand side and the liabilities and equity are listed on the right-hand side. Note that the two sides of the statement are equal. This equality must exist because the left-hand side lists the assets and the right-hand side shows the sources of the funds used to acquire the assets. Of the total assets of $254 220 controlled by the entity, $110 880 of them were funded by creditors (liabilities) and the remainder of $143 340 was funded by the owner, Minh Vu.

The basic accounting model (**accounting equation**) for the balance sheet is:

Assets = Liabilities + Equity

All transactions of an entity can be analysed using this basic model, although we will see that better analyses can be made by expanding the equation to include the effect of the income statement.

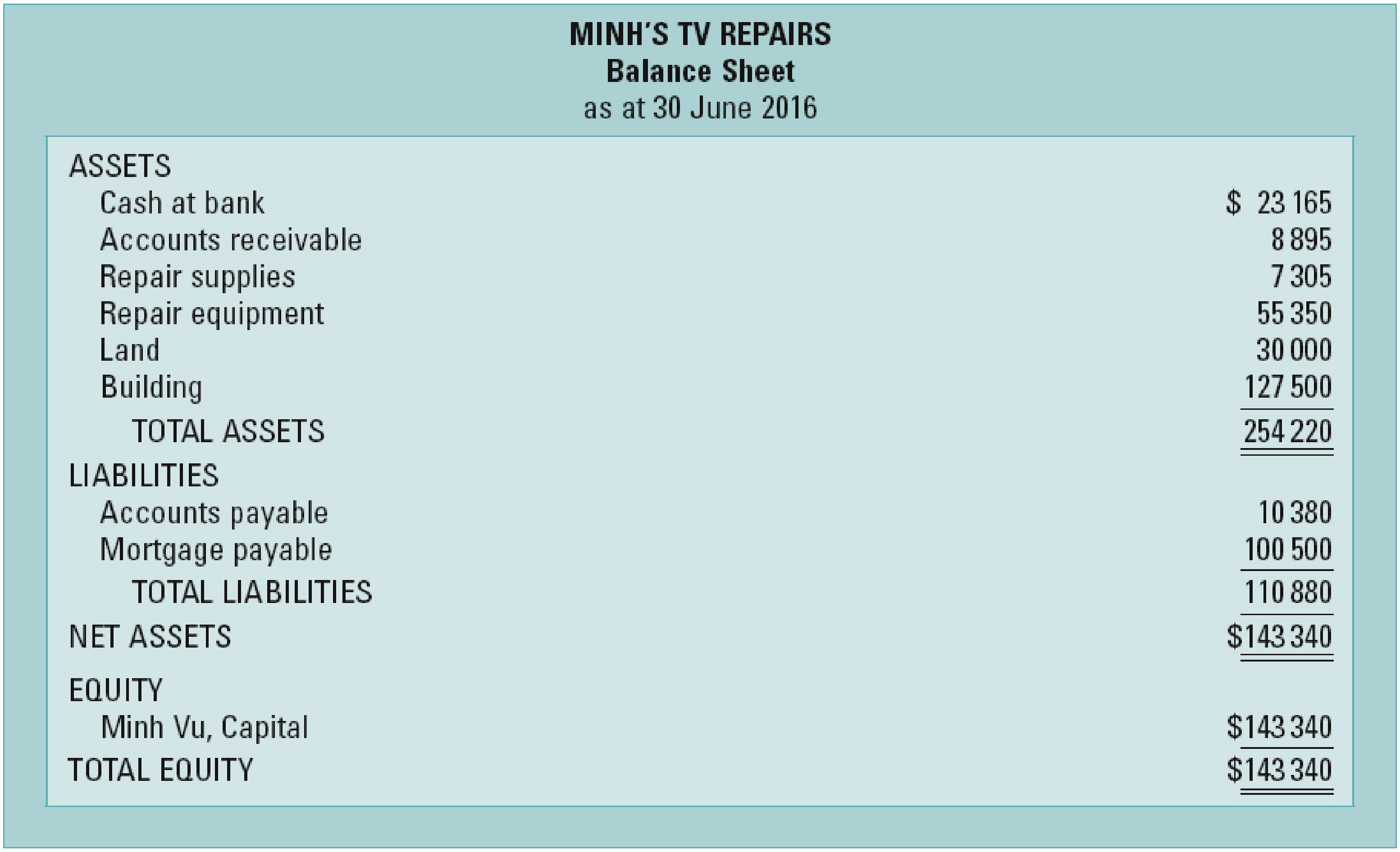
While figure 2.2 displays an ***account*** form of presentation since, as will be seen in subsequent chapters, it resembles the structure of a T-shaped ledger account, there is no prescribed way for presenting this statement other than clearly identifying the total assets, total liabilities and equity. The ***narrative*** or ***descriptive*** form of presentation lists all of the elements of a balance sheet in one column. In Australia, no set format exists; however, the narrative format is most common in business practice for reporting by companies.

The basic accounting model (accounting equation) for the narrative form of balance sheet is usually:

Assets − Liabilities = Net Assets = Equity

Figure 2.3 illustrates the balance sheet presented in narrative format. Balance sheets of organisations other than companies also may be presented in either account or narrative format, although the narrative style is more prevalent. Note that when liabilities are deducted from assets, the amount $143 340 is often called **net assets**, which equals equity.

Figure 2.3 Balance sheet (narrative format)



MINH'S TV REPAIRS
Balance Sheet
as at 30 June 2016

ASSETS	
Cash at bank	$ 23 165
Accounts receivable	8 895
Repair supplies	7 305
Repair equipment	55 350
Land	30 000
Building	127 500
TOTAL ASSETS	254 220
LIABILITIES	
Accounts payable	10 380
Mortgage payable	100 500
TOTAL LIABILITIES	110 880
NET ASSETS	$143 340
EQUITY	
Minh Vu, Capital	$143 340
TOTAL EQUITY	$143 340

Assets

Assets are resources controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.[1] They are economic resources which may be tangible (having physical characteristics, such as land, buildings and equipment) or intangible (assets without physical existence, such as legal claims or patent rights). It is a common practice for entities to list assets on the statement in the order of highest liquidity (cash and items easily converted in the short term to cash) to lowest liquidity, as a means of helping users to assess solvency. This is explained further in chapter 4.

Liabilities

Liabilities are present obligations of an entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.[2] They are the debts owed by an entity to outside parties called **creditors** and include amounts owed to suppliers for goods or services purchased on credit (**accounts payable**), amounts borrowed from banks or other lenders (***loans payable*** and ***mortgages payable***) and amounts owed to employees for wages and salaries that have not yet been paid (***wages and salaries payable***). Liabilities require settlements from assets, generally cash, or the performance of services to cancel them.

Equity

Equity may be thought of as the owner's claim to (or the residual interest in) the assets of the entity after deducting all its liabilities. The basic accounting model introduced earlier (Assets = Liabilities + Equity) indicates that the total assets of the entity equal the total claims against those assets by creditors and owners. Creditors' claims take legal precedence over owners' claims with owners being the ultimate risk-takers in the entity; if the assets are sold, creditors must be paid before the claims of the owner(s) are recognised. Thus, equity is a residual (i.e. 'left over') claim on the assets, and the basic accounting model which expresses this idea clearly is:

$$\text{Assets} - \text{Liabilities} = \text{Equity}$$
or
$$\text{Net assets} = \text{Equity}$$

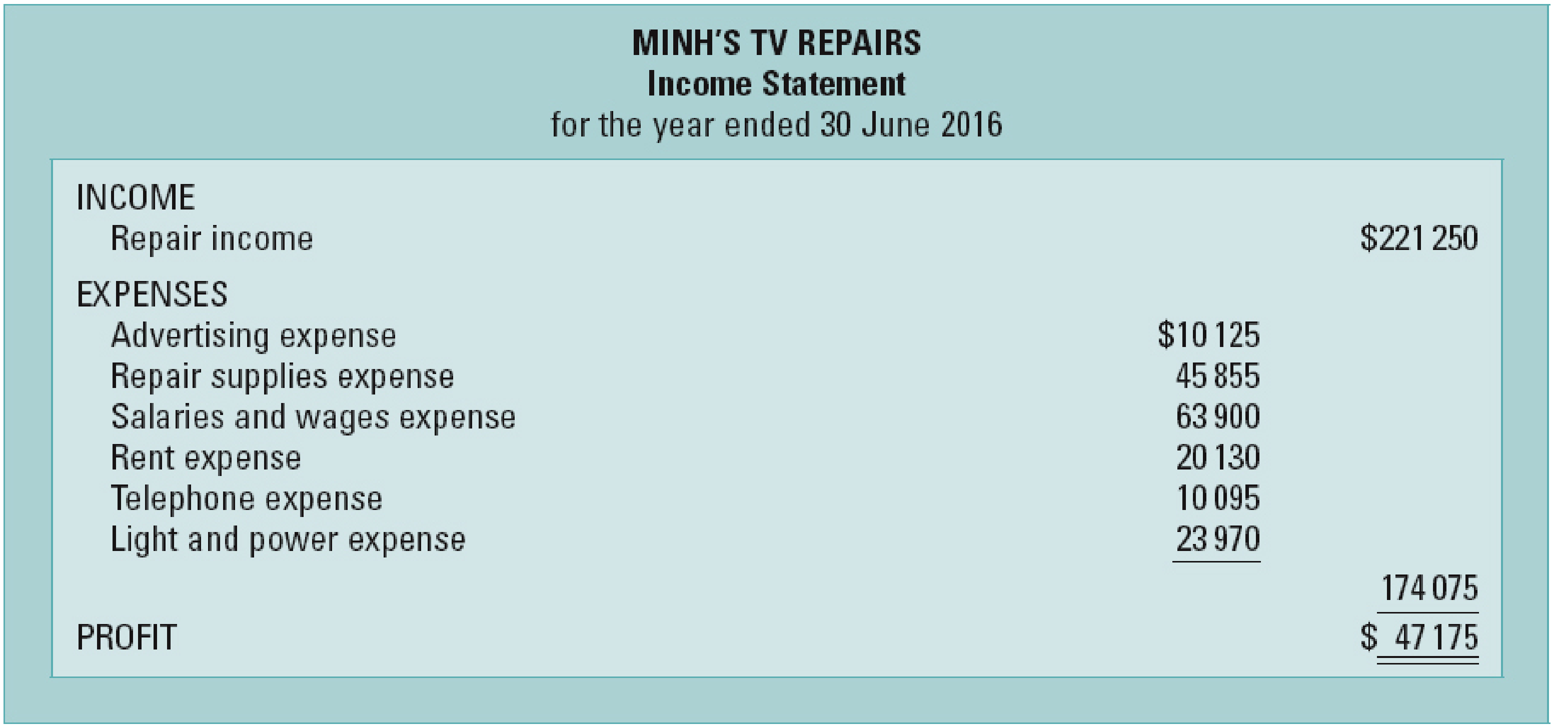
Other terms often used for equity are ***proprietorship*** and ***capital***. Note that, in the case of government departments and government entities, equity is replaced by ***accumulated surplus*** as the 'owners' of government entities are the public. For not-for-profit entities, equity is usually represented by the term ***accumulated funds***. The term 'not-for-profit' does not mean that the entity does not make a profit. 'Not-for-profit' means that any profit generated by the entity must be used to further the entity's objectives rather than serve the interests of the members or owners.

In summary, the two sides of the balance sheet in account format are always equal because they simply reflect two views of the same thing. In figure 2.2, the list of assets shows the resources controlled by the entity. The lists of liabilities and equity show the amounts of the resources provided in the past to the business by the creditors and the owners. Thus, all the assets are funded by either creditors or owners. Because creditors' claims take legal precedence, a business entity with a relatively large ratio of liabilities to equity is considered financially weaker (a greater risk) than an entity with a relatively large ratio of equity to liabilities. This emphasis on equity as a residual claim is shown in the narrative format in figure 2.3.

The income statement

The **income statement** (sometimes called a **profit or loss statement**, or an **operating statement** in government and not-for-profit entities) reports the results of financial performance for a specific time period such as a month, half-year or year. Profit for the period is the excess of income over expenses for that time. If expenses for the period exceed income, a loss is incurred. Figure 2.4 shows a simple income statement for Minh's TV Repairs.

Figure 2.4 Income statement



MINH'S TV REPAIRS
Income Statement
for the year ended 30 June 2016

INCOME		
Repair income		$221 250
EXPENSES		
Advertising expense	$10 125	
Repair supplies expense	45 855	
Salaries and wages expense	63 900	
Rent expense	20 130	
Telephone expense	10 095	
Light and power expense	23 970	
		174 075
PROFIT		$ 47 175

The heading identifies the entity being reported on — Minh's TV Repairs — the name of the statement and the time period covered by the statement. Identification of the time period covered is particularly important in an income statement because it indicates the length of time (here, 1 year) it took to earn the reported profit. The data in the income statement would have no meaning without a clear indication of the period covered.

Income

Income represents an increase in the wealth of the owner(s). Income is defined in the ***Framework*** as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. Income usually results from the sale of goods or the performance of services. It is commonly measured by the amount of cash or value of other assets received. Although income often is measured by the cash received, it may be measured by the receipt of other assets, such as promises by customers to pay in the future (**accounts receivable**, also called **debtors**) or the receipt of property from a customer. Income, in the case of 'not-for-profit' entities can also be bequests. Regardless of the type of asset received, income usually results not only from the sale of goods and the performance of services but also from interest received, dividends received on shares owned, and rent. Note that any asset contributed to the entity by owners is not regarded as income, but as a different type of increase in the equity, referred to as a 'contribution by owners'. An entity cannot earn income or create wealth through transactions with its owners. It is a key pillar of accounting that the activities of the entity are separated from those of its owners, irrespective of the structure of business.

Expenses

Expenses are decreases in equity. They are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants. Expenses are measured by the amount of assets used up or the amount of liabilities incurred. They may arise through immediate cash payments, as for current wages and salaries, or through promises to pay cash in the future for services received, such as advertising. In some cases, cash may be paid out before the expense is incurred, such as payment for next month's or next year's rent. These prepayments represent assets until they are used. In figure 2.4, the total of all expenses incurred during 2016 by Minh's TV Repairs was $174 075. Subtracting these expenses from income produces a profit of $47 175. It is important to understand that the profit represents an increase in equity. Because income results in an increase in equity and expenses result in a decrease in equity, the difference between the two — **profit** — must represent a net increase in equity. Similarly, a **loss** represents a decrease in equity.

The statement of changes in equity

The statement of changes in equity (figure 2.5) serves as a connecting link between the balance sheet and the income statement, and explains the changes that took place in equity during the period. For example, assuming that Minh's capital balance on 1 July 2015 was $118 665 and that he withdrew $22 500 from the business for personal use during 2016 (referred to as **drawings**), the statement of changes in equity for 2016 would be as shown in figure 2.5.

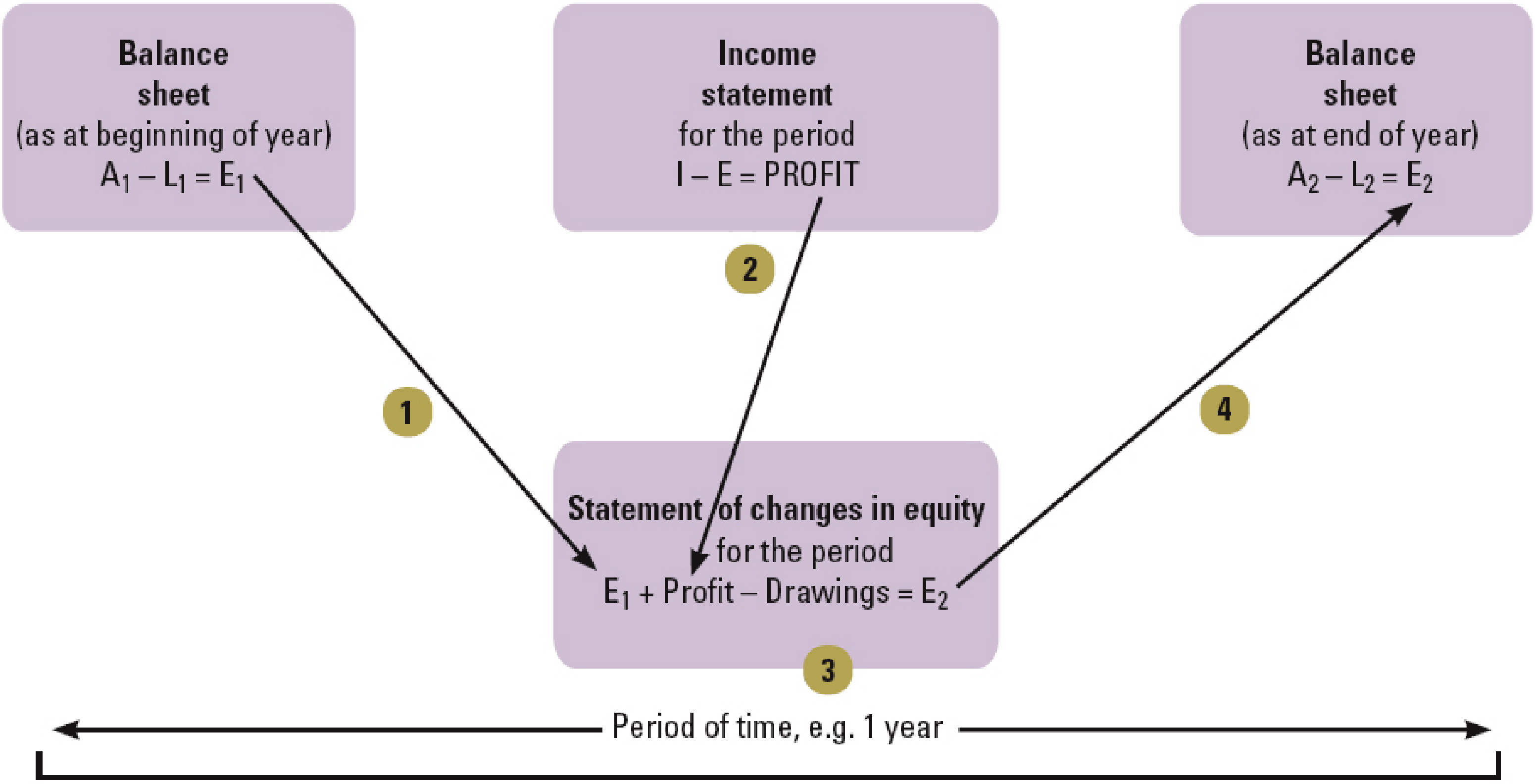
Figure 2.5 Statement of changes in equity

MINH'S TV REPAIRS
Statement of Changes in Equity
for the year ended 30 June 2016

Minh Vu, Capital — 1 July 2015	$118 665
Add: Profit for the year	47 175
	165 840
Less: Drawings	22 500
Minh Vu, Capital — 30 June 2016	$143 340

The three statements illustrated above — balance sheet, income statement and statement of changes in equity — are related to one another. The balance sheet at the end of one period is the balance sheet at the beginning of the next period. The balance sheets at the beginning and end of a period are linked by the income statement and the statement of changes in equity as shown in figure 2.6.

Figure 2.6 Financial statements relationship

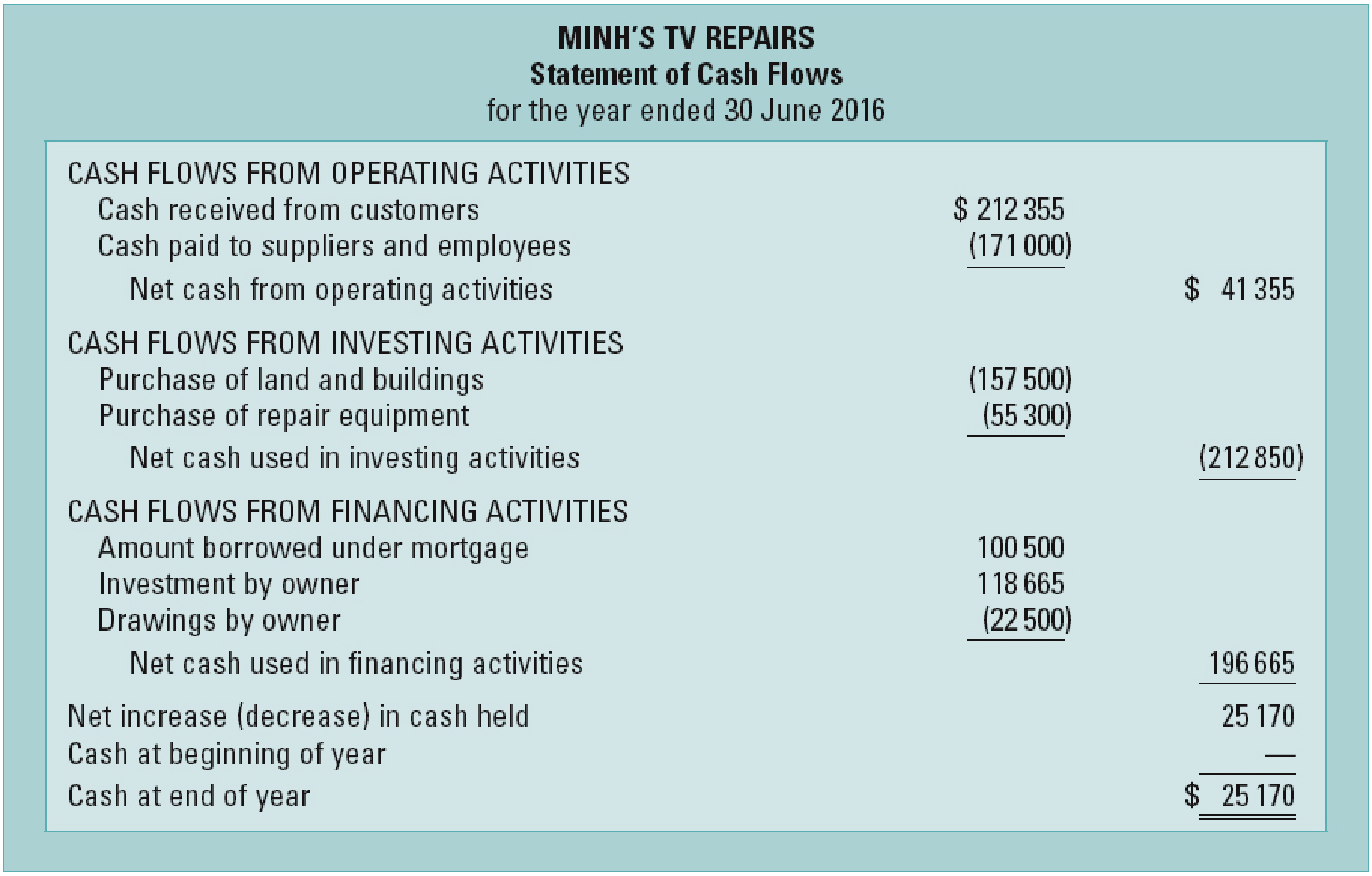


1. E_1 is shown in the beginning balance sheet and is the starting point for the statement of changes in equity.
2. Profit (Income (I) less Expenses (E)) for the period is determined from the income statement and included in factors which alter the capital balance over the year.
3. Drawings made during the year (usually in cash) are recorded in the accounts and used in determining the equity at the end of the period E_2.
4. E_2 is shown on the ending balance sheet.

The statement of cash flows

Another important financial statement prepared by entities is a statement of cash flows. An entity's income statement does not report on the cash flows of the entity, but on its income and expenses (chapter 4 discusses this further). Income and expenses as defined above do not necessarily represent cash flows. Consequently, a **statement of cash flows** is prepared to report on the cash flows in and out of the entity. It is particularly useful in helping users to assess the sources and uses of an entity's cash, and the likely ability of the entity to remain solvent (i.e. able to pay its debts), so that the users can make informed decisions. The statement reports on the entity's performance in generating cash flows from operating activities, investing activities and financing activities as shown in figure 2.7 for Minh's TV Repairs, assuming that this business began its operations on 1 July 2015 when the owner, Minh Vu, invested $118 665 cash in the business.

Figure 2.7 Statement of cash flows



MINH'S TV REPAIRS
Statement of Cash Flows
for the year ended 30 June 2016

CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers	$ 212 355	
Cash paid to suppliers and employees	(171 000)	
Net cash from operating activities		$ 41 355
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of land and buildings	(157 500)	
Purchase of repair equipment	(55 300)	
Net cash used in investing activities		(212 850)
CASH FLOWS FROM FINANCING ACTIVITIES		
Amount borrowed under mortgage	100 500	
Investment by owner	118 665	
Drawings by owner	(22 500)	
Net cash used in financing activities		196 665
Net increase (decrease) in cash held		25 170
Cash at beginning of year		—
Cash at end of year		$ 25 170

By comparing the entity's statement of cash flows with its income statement, we can see how well the reported profits are represented by cash inflows from operating activities. We see from figure 2.7 that the increase in cash was mainly the result of cash inflows from financing activities, and that the main use of cash in the business during the year was for investing activities, through the purchase of property and equipment.

BUSINESS KNOWLEDGE

Profit is the bottom line

Just like the trappings of the rich — a mansion, a Mercedes and a holiday house in Majorca — give the impression of success, so too do the many ways in which we often evaluate businesses such as revenue, share price, number of employees, percentage of annual revenue growth, size of warehouse, and number of products sold.

It may look as if there are different kinds of success — however, there is only one true way to know if you're successful, and that's profit. I can beat around the bush, but unless the company that you are building is generating clear profits after paying for its weekly/quarterly/yearly expenses and providing nice dividends to its shareholders, then it is not really successful.

Without profit, you don't have a business for very long. Limousines and Learjets don't mean a thing if you travel on borrowed cash. A seemingly successful start-up brimming with sales is unsustainable without profit. Meeting expenses is survival, earning beyond them is success.

Many start-ups today focus too much on generating top-line revenue while behind the scenes the founders have to raise more and more funds to cover their burn. It looks sexy to have a million-dollar company in a very short time, but it is only if that million-dollar company is not glossing over the $5 million in start-up capital it has not yet paid back to its investors that you could call it successful.

Hezi Leibovich, co-founder of online shopping group The Catch Group, incorporating CatchOf TheDay, Scoopon, Groveryrun, Vonomofo, Mumgo and Eatnow, refers to lots of companies in the online space as CRAP, which stands for Cannot Realise Any Profit. He argues that they focus more on revenues and market share but don't really think about the big picture, which is the bottom line.

Source: Leibovich, H 2013, 'Profit is the bottom line', ***Business Review Weekly***, 21–7 March, p. 39.

LEARNING CHECK

- ☐ The four basic financial statements prepared by the accountant are the income statement, the balance sheet (statement of financial position), the statement of changes in equity, and the statement of cash flows.
- ☐ The accounting equation is: Assets − Liabilities = Equity.
- ☐ Assets are resources controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
- ☐ Liabilities are present obligations of an entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources.
- ☐ Equity is the residual interest in the assets of the entity (i.e. what is left over) after deducting all the entity's liabilities.
- ☐ Income (expenses) represents increases (decreases) in economic benefits which increase (decrease) equity during the accounting period.
- ☐ The statement of changes in equity serves as a connecting link between the balance sheet and the income statement, and explains the changes that took place in equity during the period.
- ☐ The statement of cash flows summarises the operating activities, investing activities and financing activities during the accounting period.

2.4 Assumptions made and characteristics of information

LO 4 **Explain the main assumptions made and the characteristics of information to be used in the preparation of financial statements.**

We have described accounting as a service activity designed to identify, measure and record financial data of an entity for use in making economic decisions. Over time, as accounting has evolved, questions have arisen concerning the method of identifying events, the principles of measurement to be used and the general guidelines to be followed in order to communicate financial data useful in decision making.

Accountants have gradually produced responses to these questions and developed some underlying assumptions that are followed in present-day accounting reports. Furthermore, the characteristics of information to be included by accountants in financial statements have also been considered and are discussed below.

The accounting entity assumption

If the transactions of an entity are to be recorded, classified and summarised into financial statements, the accountant must be able to identify clearly the boundaries of the entity being accounted for. Under the **accounting entity assumption**, the entity (Minh's TV Repairs, for example) is considered a separate entity distinguishable from its owner and from all other entities. It is assumed that each entity controls its assets and incurs its liabilities. The records of assets, liabilities and business activities of the entity are kept completely separate from those of the owner of the entity as well as from those of other entities. For example, the personal assets, debts and activities of Minh Vu are not included in the records of Minh's TV Repairs because they do not constitute part of the activities of the business entity. A separate set of accounting records is maintained for each entity, and the financial statements prepared provide information on that entity only.

The accounting entity assumption is important since it leads to the derivation of the accounting equation. Given this assumption, if the entity receives $50 000 cash from the owner as capital, the accountant for the entity records that it has an asset of $50 000 in the form of cash but also has to recognise that the entity is now indebted to the owner for $50 000. In other words, the owner has equity in the assets of the entity and it follows that:

$$\boxed{\text{Assets} = \text{Equity}}$$

Similarly, if the entity borrows cash from a lender, the asset (cash) increases, and the entity must acknowledge the interest of the creditor in the total assets of the entity. The equation is now expressed as:

$$\boxed{\text{Assets} = \text{Liabilities} + \text{Equity}}$$

The accrual basis assumption

The financial statements of an entity are assumed to be prepared on the **accrual basis**. According to the ***Framework***, under the accrual basis the effects of all transactions and events are recognised in accounting records when they occur, and not when the cash is received or paid. Hence, financial statements report not only on cash transactions but also on obligations to pay cash in the future and on resources that represent receivables of cash in future. It is argued in the ***Framework*** that accounting on an accrual basis provides information about the transactions and other events that is most useful for decision making by both internal and external users of those statements. Further discussion of the accrual basis of accounting as opposed to the cash basis is provided in chapter 4.

The going concern assumption

According to the ***Framework***, financial reports are prepared normally on the assumption that the existing entity will continue to operate in the future — the **going concern assumption**. It is assumed that the entity will not be wound up in the near future but will continue its activities, and so the liquidation values (prices in a forced sale) of the entity's assets are not generally reported.

When management plans the sale or liquidation of the entity, the going concern assumption is set aside and the financial statements are prepared on the basis of estimated sales or liquidation values. The statements should then identify clearly the basis on which asset values are determined. In order for decision makers to understand information contained in financial reports, it is important that they know whether assets are valued at cost, at fair values, or on some other basis.

The period assumption

All entities need to report their results in the form of either profit or operating surplus. Profit is determined for particular periods of time, such as a month or a year, in order to get comparability of results. There are also statutory requirements for entities to determine periodic profit figures, such as for taxation. This division of the life of the entity into equal time intervals is known as the **period assumption**.

As a result of this assumption, profit determination involves a process of recognising the income for a period and deducting the expenses incurred for that same period.

Fundamental qualitative characteristics

The fundamental qualitative characteristics of accounting information are relevance and faithful representation. Since the purpose of presenting accounting information in financial statements is to provide information to users for making economic decisions, it is important that this information is relevant to users for decision making. **Relevance** means that the information can influence the economic decisions made by users. For example, the information may help users to predict future events, such as future cash flows, from the alternative courses of action under consideration. Furthermore, information is relevant if it is able to help decision makers evaluate past decisions. The information may confirm that a previous decision was correct, or it could show that the results of a previous decision were undesirable and that a new decision is necessary to correct or minimise the mistakes of the past. Thus, information that is relevant is said to have a predictive role and a confirmatory or feedback role.

A further aspect of relevance is that the information must be presented by the accountant to the user (internal or external) in time for a decision to be made. It is a waste of time and effort for the accountant to prepare detailed financial statements if they don't reach users before they make a decision. Users may be satisfied with receiving less detailed information as long as the information is provided on time. Thus, ***timeliness*** of information is an important factor in ensuring that information is relevant.

Just as important as relevance is faithful representation. **Faithful representation** means that the user is assured that the information presented is complete, without bias or undue error, and neutral. Faithful representation is closely related to reliability. Accountants require information to be reliable, which means that the information reported represents the facts as closely as possible. This is a major reason that accountants record assets in the financial records at their original historical cost. The cost of a resource acquired is determined on the basis of the exchange price negotiated between the buyer and the seller. For accountants to record fair values requires the use of estimates, appraisals or opinions, all of which are more unreliable, even though such information may be relevant to users for decision-making purposes.

In the past, users of accounting information were given the most reliable data available, that is, data were reported in terms of historical cost. However, it was argued that the accountant had sacrificed a degree of relevance so that information was reliable. Fair values are usually relevant in making decisions and, therefore, the reporting of cost data as the only reliable information is questionable. Balancing relevance with faithful representation in order to determine the content of financial statements for decision-making purposes by internal and external users is a constant challenge facing an accountant.

An additional aspect of faithful representation is that the economic substance of transactions and events should be given priority. **Economic substance** means that the accountant examines transactions and events in order to report on their economic reality as opposed to their legal form. Thus, it is common for the accountant to report assets on the entity's balance sheet even if those assets are not legally owned by the entity. Economic substance relates to the economic significance of the items to the entity, not to their legal ownership. Even though most items of economic significance to an entity are also legally owned by that entity, whenever there is a separation of economic substance from legal form, the accountant will report on the basis of the economic substance rather than on legal ownership.

For example, when an asset is leased by an entity on a long-term basis, the economic benefits and the risks of ownership often rest with the entity which has possession and use of the asset (lessee) and not with the legal owner (lessor). Thus, the long-term leased asset is reported on the balance sheet of the lessee rather than on the balance sheet of the lessor. The lessor is said to have 'sold' the asset to the lessee, even though, legally, the asset is still the property of the lessor. In order to accommodate the desire to report the economic substance of transactions and events, note that the accountant has defined an asset in terms of ‘control’ rather than ‘ownership’.

The discussion in the previous paragraphs recognised the close connection between faithful representation and reliability. In September 2010, the International Accounting Standards Board issued a revised ***Conceptual Framework*** with the revisions specifically related to the objectives and qualitative characteristics of financial statements. The revision changed the qualitative characteristics of information in financial statements. Instead of ‘reliability’, the ***Conceptual Framework*** now refers to ‘faithful representation’. The basis for this change was that to be useful in making investment, credit and similar resource allocation decisions, information must be a faithful representation of the real-world economic phenomena that it purports to represent. The phenomena represented in financial reports are economic resources and obligations and the transactions and other events and circumstances that change them. To be a faithful representation of those economic phenomena, information must be ***neutral***, ***free from error and unbiased***. Further discussion is provided in chapter 10.

Enhancing qualitative characteristics

In addition to fundamental qualitative characteristics, the enhancing qualitative characteristics of financial information are comparability, verifiability, timeliness and understandability. The revised ***Conceptual Framework*** issued in 2010 adopts the concept of comparability as a desirable characteristic of accounting information. **Comparability** is the quality of information that enables users to identify similarities in and differences between two sets of economic data. Comparability, including consistency, enhances the usefulness of financial reporting information in making economic decisions. **Consistency** refers to use of the same accounting policies and procedures, either from period to period within an entity or in a single period across entities. In revising the ***Conceptual Framework***, it was argued that comparability is the goal and that consistency of policies and procedures is a means to an end that helps in achieving that goal. However, it is insufficient for policies and procedures to be applied consistently if the information they produce is no longer relevant or a faithful representation of economic reality.

Verifiability refers to different knowledgeable and independent observers being able to reach consensus, although not necessarily complete agreement, that a particular portrayal of information is a faithful representation. Verifiability assists to assure users that information represents faithfully the economic phenomena it purports to represent. Another enhancing qualitative characteristic is **timeliness**. It is desirable that users have access to timely information for their decision making.

A further characteristic of useful accounting information is that of understandability. The ***Conceptual Framework*** defines **understandability** as the quality of information that enables users who have a reasonable knowledge of business and economic activities and financial accounting, and who study the information with reasonable diligence, to comprehend its meaning. It should be clear that, even though it is desirable for financial statements to be expressed in simple language, relevant information should not be excluded merely because it may be too complex or difficult for some users to understand. Understandability is enhanced when information is classified, characterised, and presented clearly and concisely.

The concept of materiality

To ensure that information in financial statements is useful for decision making, it is important that users are not overwhelmed with so much detail that they cannot clearly understand the message. Hence, it is desirable that users receive information about ***significant*** items for their decisions, with insignificant items either not shown separately or grouped together under appropriate headings.

The concept of **materiality** relates to the extent to which information can be omitted, misstated or grouped with other information without misleading the statement users when they are making their economic decisions. Materiality needs to be considered in determining if information is relevant and this can vary from entity to entity. Thus, the prices paid for insignificant items, such as for each piece of stationery, need not be shown separately in the financial statements because they are insignificant, or immaterial, in the overall context of the decision being made by the user. It is important, however, when assessing materiality, for the accountant to be aware of the particular decision being made by the user. The same information may be material for one decision and immaterial for another. Thus, considerable judgement is needed by the accountant in order to assess which information is material and which is immaterial for the particular decision at hand and from one entity to another.

Benefits and costs

The ***Conceptual Framework*** also states that the benefits of financial reporting information should justify the costs of providing and using it. The benefits of financial reporting information include better investment, credit and similar economic decisions, which in turn result in more efficient markets and greater benefits for the economy as a whole. But, the task of preparing financial statements also imposes costs on both the preparers and the users of those statements, as well as on others such as auditors. Therefore, a major constraint on reporting the absolute best information in a financial statement is the cost of generating that information and assuring that it is a faithful representation of the events it is supposed to represent. In other words, information is costly to produce, and both the accountant and the user must be mindful of its benefits and costs.

These assumptions and characteristics (and others as well) have been established by international regulators of accounting standards. In a later chapter, we shall introduce the issue of regulation, and show how accounting standards have been developed in Australia.

BUSINESS KNOWLEDGE

Globalised financial reporting standards

Asia will be central to the setting of global accounting standards in the next five years, and Australia is well positioned to lead that charge if it has the courage to step up, according to former International Accounting Standards Board chairman, David Tweedie.

America's relevance in the context of the world's equity markets is slipping, said Sir David, in Australia this week to address the University of Sydney Business School R J Chambers Memorial Research Lecture.

The United States accounted for 52 per cent of world equity capitalisation when the quest for a global set of accounting rules began a decade ago. Now it's down to 31 per cent. At the same time, Asia's contribution has risen from 15 per cent to 33 per cent.

'Suddenly you've got Asia going past America. And the Americans haven't quite woken up to that yet. They're losing it, and they're losing it to this region, and Latin America too on a much smaller scale,' he said.

Efficient capital markets depend on reliable accounting, and one of the primary aims of the International Financial Reporting Standards is to facilitate global investment flows.

Sir David admits that despite America's shrinking share of world market capitalisation, 'there won't be a global standard [for accounting] unless you get the Americans in'. Japan is the linchpin. Circumstances could be right for it to finally break with the US and adopt the international standards, isolating the US as the odd one out.

He believes the biggest challenge for accounting standard setters in the next decade will be sticking to a principles-based approach, and resisting the temptation for prescriptive rules and more interpretations.

This philosophy has allowed IFRS to stay under 3000 pages, compared to US GAP at 17 500.

Source: King, A 2012, 'Asia must step into standards gap: Tweedie', ***The Australian Financial Review***, 12 September.

LEARNING CHECK

☐ Under the accounting entity assumption, the entity is considered a separate entity distinguishable from its owner(s) and from all other entities. The accounting equation is derived from this: Assets = Liabilities + Equity.

☐ Under the accrual basis assumption, the effects of transactions and events are recognised in accounting records when they occur, and not necessarily when the cash is received or paid.

☐ The going concern assumption means that financial statements are prepared on the assumption that the entity will continue to operate in the future, and so liquidation prices are generally not reported.

☐ As a result of the period assumption, profit determination involves recognising income for a period and deducting the expenses incurred for that same period.

☐ The fundamental characteristics of useful financial information are relevance and faithful representation and the enhancing characteristics are comparability, verifiability, timeliness and understandability.

☐ Both materiality and costs versus benefits are important constraints on determining which information to include in financial statements for efficient economic decision making.

2.5 The effects of transactions on the accounting equation and financial statements

LO 5 Analyse the effects of business transactions on the accounting equation and on financial statements.

The basic accounting model or accounting equation was expressed earlier as:

Assets = Liabilities + Equity

The sum of the assets of an entity is always equal to the total sources from which those assets came — liabilities plus equity. Transactions result in changes in assets, liabilities and equity. Even though the elements of the accounting equation change as a result of transactions, the basic equality of the accounting equation remains unchanged, which is illustrated using some transactions undertaken by the business of Cynthia's Beauty Services, introduced in chapter 1.

Note that the impact of GST is not discussed in this example in order to focus on the basic accounting principles involved in recording the transactions for Cynthia's business. GST is introduced in chapter 3.

Transaction 1 Assume that Cynthia decided to set up a business called Cynthia's Beauty Services on 2 January 2016 by taking $53 000 from her personal savings account and depositing it in a business bank account she opened in the business name. This investment by Cynthia represents the first transaction (1) of Cynthia's Beauty Services. After this initial investment, the new business has one asset (cash at bank), no liabilities and Cynthia's equity. Thus, the accounting equation for Cynthia's Beauty Services is as shown below.

	Assets	=	Liabilities	+	Equity
	Cash at Bank				Cynthia Jones, Capital
(1)	$53 000	=			$53 000

The effect of this transaction is to increase assets by $53 000, with an equal increase in equity on the other side of the equation. (Remember that the equation relates only to the business entity.) Because of the accounting entity assumption, Cynthia's personal assets and debts are not part of the business and are therefore excluded from the equation.

Transaction 2 After making the initial investment, Cynthia, who also manages the business, purchased a van and massage and manicure tables. The van cost $32 000 and the tables had a list price of $8000 cost but after discussion, the supplier agreed to sell the equipment to Cynthia's business for $6000 cash. The equation before this transaction, the effect of this transaction (2) on the equation, and the equation after the transaction are:

	Assets					=	Liabilities	+	Equity
	Cash at Bank	+	Massage and manicure tables	+	Van	=			Cynthia Jones, Capital
(1)	$53 000					=			$53 000
(2)	−38 000		+6 000		+32 000				
	15 000	+	6 000	+	32 000	=			53 000
			$53 000						

This transaction resulted in an exchange of one asset (cash) for two other assets (a van, and massage and manicure tables). No liabilities were incurred and Cynthia's equity remained unchanged. Note that the van and tables are recorded initially at their cost of $38 000; the list price of the tables is irrelevant. Note that total assets of $53 000 are still equal to liabilities + equity.

Transaction 3 Cynthia purchased $2500 worth of nail supplies from OPI Ltd on credit, with an agreement to pay for the supplies later. The effect of this transaction (3) is an increase in assets of $2500 and an increase in liabilities, accounts payable, of $2500:

	Assets							=	Liabilities	+	Equity
	Cash at Bank	+	Massage and manicure tables	+	Van	+	Nail Supplies	=	Accounts Payable	+	Cynthia Jones, Capital
(1)	$53 000							=			$53 000
(2)	−38 000		+6 000		+32 000						
	15 000	+	6 000	+	32 000			=			53 000
(3)							+2 500		+2 500		
	15 000	+	6 000	+	32 000	+	2 500	=	2 500	+	53 000
				$55 500						$55 500	

Cynthia's equity in the business did not change because assets and liabilities increased by equal amounts. The accounting equation is still in balance, with $55 500 in total assets and $55 500 of liabilities and equity.

One of the main objectives of a business is to engage in activities that will result in profit to its owners. As explained earlier, profit is the excess of income over expenses for a specific time period. Income for Cynthia's Beauty Services is derived from charging fees for performing beauty-related services for its customers. Because the assets received as income belong to the owner, income increases equity. Expenses for the business consist of such things as wages paid to Fred as an employee and nail supplies used. Just as income increases equity, expenses decrease equity. The excess of income over expenses therefore results in an increase in the net assets and a net increase in equity. Of course, an excess of expenses over income (a loss) has the opposite effect.

Transactions 4 and 5 To illustrate the effect of income on the accounting equation, assume that Cynthia's Beauty Services performed beauty services for customers for the amount of $4500,

which was received in cash — transaction (4). In addition, the business completed beauty services for guests at a local hotel and sent the hotel an invoice for $1150 — transaction (5). The effects of these transactions on the accounting equation are indicated in (4) and (5) below.

	Assets									=	Liabilities	+	Equity	
	Cash at Bank	+	Massage and manicure tables	+	Van	+	Nail Supplies	+	Accounts Receivable	=	Accounts Payable	+	Cynthia Jones, Capital	
(1)	$53 000									=			$53 000	
(2)	−38 000		+6 000		+32 000									
	15 000	+	6 000	+	32 000					=			53 000	
(3)							+2 500				+2 500			
	15 000	+	6 000	+	32 000	+	2 500			=	2 500	+	53 000	
(4)	+4 500												+4 500	(Beauty services income)
	19 500	+	6 000	+	32 000	+	2 500			=	2 500	+	57 500	
(5)									+1 550				+1 550	(Beauty services income)
	19 500	+	6 000	+	32 000	+	2 500	+	1 550	=	2 500	+	59 050	
					$61 550						$61 550			

Note that the effect of transaction (4) is to increase the asset cash at bank and, because it represents a receipt for the performance of services (income), to increase equity by an equal amount. Transaction (5) introduces an important principle in accounting — that income under the accrual basis of accounting is recognised before cash is received. The income is represented by an increase in an asset, in this case an account receivable, which is a right to collect cash in the future from a debtor.

Transactions 6 and 7 To see the effect of expenses on the accounting equation, assume that Cynthia's business paid cash of $600 for wages to Fred, an employee for bookkeeping services — transaction (6). In addition, a count of the nail supplies showed that nail supplies on hand amounted to $1700. The other $800 ($2500 less $1700) of nail supplies had been used — transaction (7). The effects of these transactions on the accounting equation are shown in (6) and (7) below.

Note that expenses have an effect which is opposite to the recognition of income, with a decrease in assets and a decrease in equity. The basic principle in accrual accounting is that expenses are recognised in the period in which the consumption or loss of economic benefits has occurred and not when the cash is paid.

	Assets									=	Liabilities	+	Equity	
	Cash at Bank	+	Manicure and massage tables	+	Van	+	Nail Supplies	+	Accounts Receivable	=	Accounts Payable	+	Cynthia Jones, Capital	
(1)	$53 000									=			$53 000	
(2)	−38 000		+6 000		+32 000									
	15 000	+	6 000	+	32 000					=			53 000	
(3)							+2 500				+2 500			
	15 000	+	6 000	+	32 000	+	2 500			=	2 500	+	53 000	
(4)	+4 500												+4 500	(Beauty services income)
	19 500	+	6 000	+	32 000	+	2 500			=	2 500	+	57 500	
(5)									+1 550				+1 550	(Beauty services income)
	19 500	+	6 000	+	32 000	+	2 500	+	1 550	=	2 500	+	59 050	
(6)	−600												−600	(Wages expense)
	18 900	+	6 000	+	32 000	+	2 500	+	1 550	=	2 500	+	58 450	
(7)							−800						−800	(Nail supplies expense)
	18 900	+	6 000	+	32 000	+	1 700	+	1 550	=	2 500	+	57 650	
					$60 150						$60 150			

In transaction (6), the benefits received from the employee had been used by the time payment was made. Thus the payment represents expenses that reduced the asset cash at bank as well as equity by equal amounts of $600. The initial purchase of nail supplies in transaction (3) resulted in the acquisition of an asset that will benefit several accounting periods. The measurement of nail supplies at the end of the period indicated that $800 of the supplies had been used during the period and this is treated as an expense by decreasing nail supplies and decreasing equity.

Transactions 8, 9 and 10 As one last illustration of the effect of transactions on the accounting equation, assume that Cynthia's Beauty Services collected the account receivable recognised in transaction (5) — transaction (8); and paid the amount due to OPI Ltd — transaction (9) — for the purchase of nail supplies in transaction (3). In addition, Cynthia withdrew $200 from the business for her personal use — transaction (10). The effects of these transactions on the accounting equation are demonstrated in (8), (9) and (10) below.

The effect of the collection of the account receivable in transaction (8) is to increase one asset (cash at bank) and decrease another asset (accounts receivable). There is no effect on total assets and no effect on liabilities or equity. The payment of the account payable in transaction (9) results in a decrease in cash at bank and an equal decrease in liabilities, with no effect on equity. The drawings by Cynthia in transaction (10) decrease cash at bank and equity by equal amounts.

	Assets									=	Liabilities	+	Equity	
	Cash at Bank	+	Massage and manicure	+	Van	+	Nail Supplies	+	Accounts Receivable	=	Accounts Payable	+	Cynthia Jones, Capital	
(1)	$53 000									=			$53 000	
(2)	−38 000		+6 000		+32 000									
	15 000	+	6 000	+	32 000					=			53 000	
(3)							+2 500				+2 500			
	15 000	+	6 000	+	32 000	+	2 500			=	2 500	+	53 000	
(4)	+4 500												+4 500	(Beauty services income)
	19 500	+	6 000	+	32 000	+	2 500			=	2 500	+	57 500	
(5)									+1 550				+1 550	(Beauty services income)
	19 500	+	6 000	+	32 000	+	2 500	+	1 550	=	2 500	+	59 050	
(6)	−600												−600	(Wages expense)
	18 900	+	6 000	+	32 000	+	2 500	+	1 550	=	2 500	+	58 450	
(7)							−800						−800	(Nail supplies expense)
	18 900	+	6 000	+	32 000	+	1 700	+	1 550	=	2 500	+	57 650	
(8)	+1 550								−1 550					
	20 450	+	6 000	+	32 000	+	1 700			=	2 500	+	57 650	
(9)	−2 500										−2 500			
	17 950	+	6 000	+	32 000	+	1 700			=			57 650	
(10)	−200												−200	(Drawings)
	17 750	+	6 000	+	32 000	+	1 700			=			57 450	
					$57 450							$57 450		

A review of this illustration brings out two important facts.

1. Every transaction affected at least two components of the equation. This dual recording process, known as **double-entry accounting**, is the method followed in the vast majority of accounting systems.
2. After the effects of each transaction were recorded, the equation remained in balance, with the sum of the assets equal to the sum of the liabilities and equity. Under double-entry accounting, this must always be the case.

Observe that, after all transactions have been recorded, Cynthia's equity (or capital) is $57 450, consisting of the $53 000 she invested to start the business plus $4650 profit, representing the excess of income ($6050) over expenses ($1400) for the period, less the $200 drawings. In addition, total assets of the business are $57 450, and the business owes no liabilities. Assets have therefore increased by $4450 during the period.

After taking the effects of the preceding transactions into account (the transactions occur in January and the accounting period in this case is, therefore, 1 month), we arrive at the financial statements for Cynthia's Beauty Services shown in figure 2.8.

Figure 2.8 Financial statements for Cynthia's Beauty Services

CYNTHIA'S BEAUTY SERVICES

Balance Sheet

as at 31 January 2016

ASSETS		EQUITY	
Cash at bank	$17 750	Cynthia Jones, Capital	$57 450
Nail supplies	1 700		
Massage and manicure tables	6 000		
Van	32 000		
	$57 450		$57 450

Income Statement

for the month ended 31 January 2016

INCOME		
Beauty services		$6 050
EXPENSES		
Nail supplies expense	$800	
Wages expense	600	
		1 400
PROFIT		$4 650

Statement of Changes in Equity

for the month ended 31 January 2016

Cynthia Jones, Capital — 2 January 2016	$ 53 000
Profit for the month	4 650
	57 650
Less: Drawings	200
Cynthia Jones, Capital — 31 January 2016	$ 57 450

Statement of Cash Flows

for the month ended 31 January 2016

CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers ($4500 + $1550)	$ 6 050	
Cash paid to suppliers and employees ($2500 + $600)	(3 100)	
Net cash from operating activities		$ 2 950
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of massage and manicure tables	(6 000)	
Purchase of van	(32 000)	
Net cash used in investing activities		(38 000)
CASH FLOWS FROM FINANCING ACTIVITIES		
Investment by owner	53 000	
Drawings by owner	(200)	
Net cash used in financing activities		52 800

Net increase in cash held	17 750
Cash at beginning of month	—
Cash at end of month	$ 17 750

LEARNING CHECK

☐ The accounting equation is specified as Assets = Liabilities + Equity.

☐ Double-entry accounting means that every transaction affects the accounting equation in such a way that the accounting equation balances after each transaction is recorded.

KEY TERMS

Accounting entity assumption, p. 44
Accounting equation, p. 38
Accounts payable, p. 39
Accounts receivable, p. 41
Accrual basis, p. 45
Assets, p. 39
Balance sheet (statement of financial position), p. 38
Company (or corporation), p. 34
Comparability, p. 46
Consistency, p. 46
Creditors, p. 39
Debtors, p. 41
Double-entry accounting, p. 51
Drawings, p. 41
Economic substance, p. 46
Effectiveness, p. 36
Efficiency, p. 35
Equity, p. 40
Expenses, p. 41
Faithful representation, p. 45
Financial performance, p. 37
Financial position, p. 37
Financing activities, p. 38
Going concern assumption, p. 45
Income, p. 41
Income statement, p. 40
Investing activities, p. 38
Liabilities, p. 39
Limited liability, p. 34
Loss, p. 41
Management by exception, p. 36
Management functions, p. 36
Materiality, p. 47
Net assets, p. 39
Operating activities, p. 37
Operating statement, p. 40

Organisation, p. 35
Partnership, p. 34
Period assumption, p. 45
Profit, p. 41
Profit or loss statement, p. 40
Relevance, p. 45
Shareholders, p. 34
Single proprietorship (sole trader), p. 34
Statement of cash flows, p. 42
Timeliness, p. 46
Understandability, p. 47
Verifiability, p. 46

DISCUSSION QUESTIONS

1. Explain the basic differences between a sole trader (or single proprietorship), a partnership and a company. Discuss the factors that need to be considered in selecting an appropriate structure for Cynthia’s beauty services business.
2. Oxfam is a ‘not-for-profit’ entity. Discuss what it means to be a ‘not-for-profit’ entity.
3. Entities are expected to perform in the spheres of profit, people and the planet. List some key performance indicators applicable to each sphere.
4. The coach of the local football team was trying to motivate the team before a big match. He said: ‘Our team is like any organisation. We must have goals, we must practise the usual management functions, and we must make use of all relevant information.’ Explain if you agree with the coach. If not, explain your position.
5. Analyse why the cash received from the sale of a good is income yet the cash contributed by the owner is not income.
6. Discuss whether an asset needs to be legally owned to be recorded as an asset on the balance sheet.
7. A local football club has won the premiership for the past four years. Accordingly, the club has a very strong supporter base. Rationalise if the players would be regarded as an asset of the business to be recognised on the balance sheet.
8. As the accountant at a local council, explain to the Chief Executive Officer if the land under roads is an asset that should be recorded on the Council’s balance sheet.
9. Moonshine Enterprises hired an accountant at the rate of $1000 per week. The person is to commence duty on 1 February. Explain if the business has a liability in respect of the accountant’s salary as at 1 February.
10. Discuss the significance of the following assumptions in the preparation of an entity’s financial statements:
  (a) entity assumption
  (b) accrual basis assumption
  (c) going concern assumption
  (d) period assumption.
11. List and define the fundamental and enhancing characteristics of financial information.

12. Distinguish between the concepts of consistency and comparability and discuss if the same accounting method should always be applied consistently in financial statements.
13. Your doctor knows that you are studying accounting. He has recently received the annual report for a company in which he is a shareholder. The financial report within the annual report is lengthy and your doctor requests your advice as to whether he should contact the company to complain that the financial information is not understandable. Advise your doctor.
14. Management expert Professor Henry Mintzberg has argued that a manager’s work can be characterised by ten common roles falling into three categories: informational (managing by information), interpersonal (managing through people), and decisional (managing through action). Provide an example of activity in each of these three categories.

15. ‘Faithful representation’ is a fundamental characteristic of financial information. This term replaced ‘reliable’ in the 2010 revisions to the ***Conceptual Framework***. Discuss the rationale for this change.

EXERCISES

Exercise 2.1 PREPARING A BALANCE SHEET

LO 4

Financial items for George Karatsis IT Services on 31 May 2016 are presented below in alphabetical order.

Accounts payable	$ 64 000	Land	$250 000
Accounts receivable	70 000	Mortgage payable	710 000
Building	520 000	Office equipment	180 000
Cash at bank	61 000	Office supplies	34 000

Required

A. Prepare a balance sheet similar to the one in figure 2.2. (***Note*** that a major item is missing in the list.)
B. Reformat the statement to present it in narrative form as in figure 2.3.

Exercise 2.2 INCOME STATEMENT AND ANALYSIS

LO 1, 3, 5

During the year ended 30 June 2016, Skilled Services, a provider of temporary secretary personnel, had collected receipts from clients for a total value of $250 000. Wages of $136 000 had been paid to the temporary workers, rental of office space and electricity costs were $12 000 and $13 700 respectively for the year, and the owners withdrew $20 000 for their personal use.

Required

A. Prepare an income statement for the year for Skilled Services.
B. Skilled Services is a sole proprietor. Compare the liability of a sole proprietor owner with that of a company shareholder.

Exercise 2.3 ANALYSIS OF EQUITY

LO 5

Sarah Hodge is a self-employed piano teacher operating her business from home. She keeps her accounting records for business activities completely separate from her records for personal activities. At 30 June 2015, Sarah had business assets and liabilities worth $62 500 and $41 000 respectively. At 30 June 2016, Sarah had business assets and liabilities worth $56 000 and $38 000 respectively.

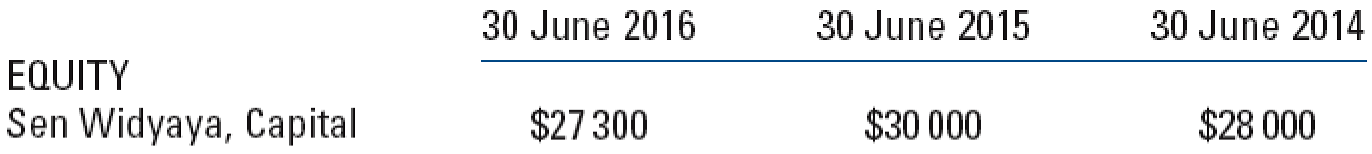
Required

A. Assuming Sarah did not contribute to or withdraw from the business during the financial year, determine the profit/loss for the year.
B. Assuming Sarah had withdrawn $15 000 during the year, determine the profit/loss for the year.
C. Assuming Sarah had contributed $20 000 and withdrawn $12 000, prepare a statement of changes in equity for the year.

Exercise 2.4 DETERMINING PROFIT FROM EQUITY BALANCES

LO 5

Equity balances for Sen Widyaya appearing in the balance sheets of Widyaya’s Window Washing Services as at 30 June 2016, 2015 and 2014 are set out below:



	30 June 2016	30 June 2015	30 June 2014
EQUITY			
Sen Widyaya, Capital	$27 300	$30 000	$28 000

During 2014–15, Sen withdrew $25 000 for personal use and also contributed additional capital of $8000. During 2015–16, he withdrew $10 000 capital from the business, and withdrew $15 000 cash for his own use in anticipation of profits.

Required

Determine the profit/loss earned by the business in each of the 2 years ended 30 June 2016 and 30 June 2015.

Exercise 2.5 OPERATING, INVESTING AND FINANCING ACTIVITIES LO 3, 5

Classify each of the following activities as being either operating, investing or financing for the purpose of preparing a statement of cash flows. Indicate whether there is an inflow [I] or outflow [O] of cash:

(a) sale of land and buildings for cash
(b) payment of wages to employees
(c) withdrawal of cash by the owner
(d) repayment of a bank loan
(e) cash purchase of a truck by a manufacturing company
(f) lease payment for a fleet of motor vehicles by a courier business
(g) borrowing of money from a finance company on a long-term basis
(h) cash received from customers for the sale of goods.

Exercise 2.6 ELEMENTS IN FINANCIAL STATEMENTS LO 3, 5

A friend who has established a new dance studio, Hip and Hop, has asked you to give some advice as to the contents of financial statements. Transactions of Hip and Hop include:

(a) contribution of cash by your friend to the business
(b) purchase of studio sound equipment on credit
(c) electricity costs paid
(d) studio fees received in cash
(e) the owner's house
(f) rental of a chilled water machine, paid in cash
(g) money withdrawn by your friend to pay university fees for a friend
(h) cash held by the business at the end of the year
(i) money borrowed for purchase of building.

Required

Indicate whether these items would appear in Hip and Hop's balance sheet, income statement, statement of changes in equity, and/or statement of cash flows. For those items included in the statement of cash flows, indicate whether the item relates to operating activities, investing activities, or financing activities. (***Hint:*** Some items may appear in more than one financial statement.)

Exercise 2.7 ASSUMPTIONS AND CHARACTERISTICS OF INFORMATION LO 3

Identify by letter the assumption or characteristic of information which best represents the situations given.

A. Accounting entity assumption
B. Accrual basis assumption
C. Going concern assumption
D. Period assumption

E. Relevance
F. Faithful representation
G. Materiality
H. Comparability

_______ 1. The reporting of accounting information should be free from personal bias.
_______ 2. In a single proprietorship, the owner's house and car are not recorded in the records of the business.
_______ 3. The cost of stationery is not shown separately in the income statement.
_______ 4. Services provided by a business entity are recorded before the receipt of cash.
_______ 5. Machinery held by the business under a long-term lease arrangement is recorded by the business

as its own asset.

______ 6. An expense is recorded in the year in which an asset or benefit is consumed in the process of carrying on the entity's business.

______ 7. Assets are not recorded at liquidation prices.

______ 8. Consistent accounting policies and methods are used in the preparation of financial statements from one year to another.

Exercise 2.8 BUSINESS TRANSACTIONS **LO 5**

For each of the following, describe a transaction that would have the stated effect on the accounting equation:

1. Increase an asset and increase a liability.
2. Decrease one asset and increase another asset.
3. Decrease an asset and decrease equity.
4. Increase an asset and increase equity.
5. Decrease a liability and decrease an asset.
6. Decrease an equity item and decrease an asset.

Exercise 2.9 PREPARATION OF A BALANCE SHEET **LO 3, 5**

Month-end balance sheet amounts for the legal practice of Adam Booth, a local lawyer, for 3 consecutive months of 2016 are shown below. The information is complete except for the balance in the Capital account.

	October	November	December
Cash at bank	$ 9 100	$ 3 900	$ 3 000
Accounts receivable	16 100	15 000	8 050
Prepaid insurance	700	1 800	1 600
Office equipment	29 800	29 700	39 300
Property	226 000	224 000	222 000
Accounts payable	10 100	3 100	3 000
Wages payable	5 100	4 100	4 800
Mortgage payable	134 700	134 300	133 900
Adam Booth, Capital	?	?	?

Required

A. Determine the balance in Adam Booth's Capital account at the end of each month.

B. Assuming that Booth made no additional investments and did not withdraw any money from the business during the 3 months, determine the profit for November and for December.

C. Prepare a balance sheet for the business at the end of December 2016. (The heading should read: Adam Booth, Lawyer.)

Exercise 2.10 EXPLAINING ACCOUNTING TRANSACTIONS **LO 5**

The following schedule shows the effect of several transactions on the accounting equation of Preya Palit and the balance of each item in the equation after each transaction. Write a sentence to explain the nature of each transaction.

	Assets							=	Liabilities	+	Equity
	Cash at Bank	+	Accounts Receivable	+	Office Equipment	+	Office Supplies	=	Accounts Payable	+	Preya Palit, Capital
(1)	+$20 000							=			+$20 000
(2)	−7 000				+7 000						
	13 000			+	7 000			=			20 000
(3)	+2 000										+2 000
	15 000			+	7 000			=			22 000
(4)			+6 000								+6 000
	15 000	+	6 000	+	7 000			=			28 000
(5)							+3 000		+3 000		
	15 000	+	6 000	+	7 000	+	3 000	=	3 000	+	28 000
(6)	+4 000		−4 000								
	19 000	+	2 000	+	7 000	+	3 000	=	3 000	+	28 000
(7)	−8 000										−8 000
	11 000	+	2 000	+	7 000	+	3 000	=	3000	+	20 000
(8)							−2 000				−2 000
	11 000	+	2 000	+	7 000	+	1 000	=	3000	+	18 000
(9)	−3 000								−3 000		
	8 000	+	2 000	+	7 000	+	1 000	=	0	+	18 000

Exercise 2.11 RECORDING TRANSACTIONS

LO 3, 5

Jones' Mower Repairs began operations on 1 August 2016 and completed the following transactions during the first month.

1. Darren Jones deposited $35 000 of his personal funds in a current account at a bank opened in the name of the business.
2. Mower repair equipment was purchased at a cost of $24 000, of which $14 000 was paid in cash. A loan payable was given for the remainder.
3. Darren collected $5000 from customers for repair services performed.
4. Shop rent was paid for the month of August, $1500.
5. Supplies amounting to $2100 were purchased on credit.
6. Wages of $1200 were paid as well as an account for electricity, $250.
7. Darren paid for the supplies purchased in (5) above.
8. Supplies used during August amounted to $750.

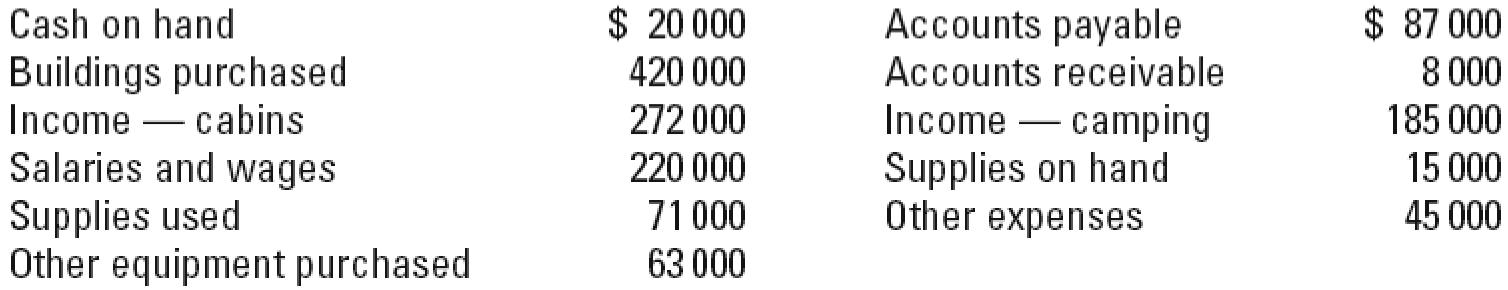
Required

A. Prepare a schedule similar to that on page 51. List the following assets, liabilities and equity as column headings: Cash at Bank; Supplies; Equipment; Loan Payable; Accounts Payable; D. Jones, Capital.
B. Show the effects of each of the transactions on the accounts listed. Indicate totals after each transaction and complete the schedule as shown on page 51.
C. Prepare an income statement and a statement of changes in equity for the month ended 31 August 2016, and a balance sheet as at 31 August 2016.

Exercise 2.12 PREPARATION OF INCOME STATEMENT AND BALANCE SHEET

LO 3, 4

Toby and Talea McKellar are the joint owners of Beaut Beach Caravan Park, which is near a swimming beach popular during the summer months. The park provides not only camping facilities for caravans and tents but also up-market cabins with kitchenettes and ensuites. For the year ended 30 June 2016, Toby and Talea determined the following financial information for their business:



Cash on hand	$ 20 000	Accounts payable	$ 87 000
Buildings purchased	420 000	Accounts receivable	8 000
Income — cabins	272 000	Income — camping	185 000
Salaries and wages	220 000	Supplies on hand	15 000
Supplies used	71 000	Other expenses	45 000
Other equipment purchased	63 000		

A real estate agent valued the buildings at $500 000 on 30 June 2016.

Required

A. Prepare an income statement for Beaut Beach Caravan Park for the year ended 30 June 2016.
B. Prepare a balance sheet for the business as at 30 June 2016.
C. Explain why you have used a particular valuation for the buildings in the balance sheet.

Exercise 2.13 EFFECT OF TRANSACTIONS ON A BALANCE SHEET **LO 5**

The following events occurred during the month of September 2016 for the business of Eliza's Webdesign Service:

Sept. 1 Eliza deposited $40 000 cash into the business bank account.

2 A computer, telephone system and printer were purchased at a cost of $10 000 cash.

4 A part-time receptionist was hired to commence in October 2016.

6 Web design services were provided to clients for $12 000. The clients were invoiced but have not as yet paid.

7 Advertising for the week amount to $1000 cash.

8 A customer paid $3000 in advance for web design services scheduled for October.

Required

A. Determine the effects of business transactions on a balance sheet by preparing a new balance sheet for Eliza's Webdesign Service after ***each*** transaction has occurred.
B. Discuss the expected tasks of Eliza as the manager of Webdesign Service.

Exercise 2.14 EFFECTS OF TRANSACTIONS ON FINANCIAL STATEMENTS **LO 5**

List the effect of each of the following transactions on any or all of the four financial statements of a business. Apart from indicating the financial statement(s) involved, use appropriate phrases such as 'increase total assets', 'decrease equity', 'increase income', 'decrease cash flow' to describe the transaction concerned.

1. Purchase equipment for cash.
2. Provide services to a client, with payment to be received within 40 days.
3. Pay a liability.
4. Invest additional cash into the business by the owner.
5. Collect an account receivable in cash.
6. Pay wages to employees.
7. Receive the electricity bill in the mail, to be paid within 30 days.
8. Sold equipment with the selling price higher than the equipment's book value.
9. Withdraw cash by the owner for private use.
10. Borrow money on a long-term basis from a bank.

Exercise 2.15 DETERMINATION OF PROFIT BY EXAMINING EQUITY CHANGES **LO 4, 5**

Eric Lu began a small business on 1 July 2015 by depositing $250 000 into a business bank account. On 30

June for the next 3 years, the assets and liabilities of the business were as follows:

30 June	Total assets	Total liabilities
2016	$580 000	$350 000
2017	650 000	370 000
2018	740 000	420 000

Required

By analysing the changes in equity each year, calculate the profit (loss) made by the business for each year ending 30 June, assuming the following events also occurred.

1. On 1 January 2016, Eric withdrew $20 000 in cash from the business for personal use.
2. On 28 August 2016, Eric invested additional cash of $30 000 into the business.
3. On 31 July 2017, Eric invested additional cash of $25 000 into the business.
4. On 28 January 2018, Eric withdrew $30 000 in cash for personal use.

PROBLEMS

Basic
Moderate
Challenging

Problem 2.1 PREPARING FINANCIAL STATEMENTS LO 3, 4, 5

Financial data for Safety Hire as of 30 June 2015 are:

Accounts receivable	$ 63 000	Wages expense	$ 75 000
Equipment hire income	170 000	Advertising expense	30 000
Accounts payable	40 000	Land	75 000
Michael Donato, Capital	?	Hire equipment	180 000
Cash at bank	45 000	Loan payable	50 000
Mortgage payable	130 000	Electricity expense	18 000
Building	85 000	Telephone expense	7 500

Required

A. Prepare an income statement for the month of June and a balance sheet in account format for Safety Hire as at 30 June 2015.
B. Discuss if, and how, the financial reports that you have prepared would change if you were aware that the wages expense included $20 000 of drawings by the owner of Safety Hire.

Problem 2.2 PREPARING FINANCIAL STATEMENTS LO 3, 4, 5

Asset, liability, equity, income and expense amounts for Sadoka's Interior Decorating at 30 June 2016 are presented below:

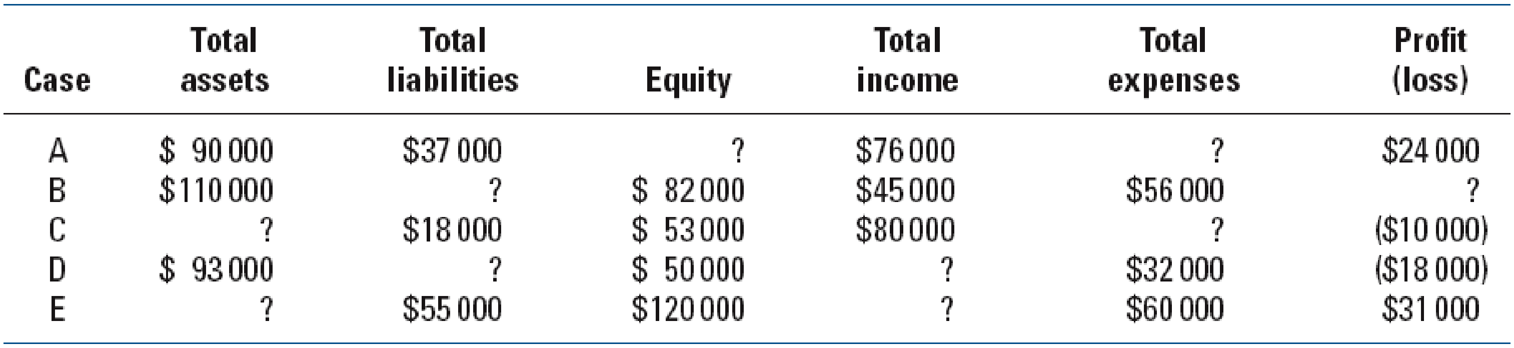
Cash at bank	$ 22 800	Advertising expense	$ 36 000
Accounts receivable	117 600	Insurance expense	8 000
Supplies	26 400	Rent expense	33 000
Equipment	125 600	Supplies expense	12 600
Accounts payable	33 700	Telephone expense	12 200
Sadoka Nato, Capital	?	Electricity expense	17 000
Decorating services income	386 000	Wages expense	111 000

Required

A. Prepare an income statement for the business for the year ended 30 June 2016.
B. Prepare a balance sheet in narrative format as at 30 June 2016.
C. Explain succinctly the differences in the information conveyed by an income statement and a statement of cash flows.

Problem 2.3 DETERMINING MISSING ELEMENTS IN ACCOUNTING EQUATION **LO 5**

Calculate the two missing amounts for each independent case below.



Case	Total assets	Total liabilities	Equity	Total income	Total expenses	Profit (loss)
A	$ 90 000	$37 000	?	$76 000	?	$24 000
B	$110 000	?	$ 82 000	$45 000	$56 000	?
C	?	$18 000	$ 53 000	$80 000	?	($10 000)
D	$ 93 000	?	$ 50 000	?	$32 000	($18 000)
E	?	$55 000	$120 000	?	$60 000	$31 000

Problem 2.4 IDENTIFYING TRANSACTIONS FROM BALANCE SHEET CHANGES **LO 3, 4, 5**

During October 2016, Cleo organised a new business, Cleo’s Cafe. After each October transaction, Cleo prepared a balance sheet, as shown overleaf.

(1)

CLEO'S CAFE
Balance Sheet
as at 4 October 2016

ASSETS		EQUITY	
Cash at bank	$175 000	Cleo, Capital	$175 000

(2)

CLEO'S CAFE
Balance Sheet
as at 13 October 2016

ASSETS		EQUITY	
Cash at bank	$ 46 000	Cleo, Capital	$175 000
Tables and chairs	129 000		
	$175 000		$175 000

(3)

CLEO'S CAFE
Balance Sheet
as at 18 October 2016

ASSETS		LIABILITIES AND EQUITY	
Cash at bank	$ 26 000	Loan payable	$ 60 000
Tables and chairs	129 000	Cleo, Capital	175 000
Coffee machines	80 000		
	$235 000		$235 000

(4)

CLEO'S CAFE
Balance Sheet
as at 26 October 2016

ASSETS		LIABILITIES AND EQUITY	
Cash at bank	$ 26 000	Accounts payable	$ 18 000
Supplies	18 000	Loan payable	60 000
Coffee machines	80 000		78 000
Tables and chairs	129 000	Cleo, Capital	175 000
	$253 000		$253 000

Required

A. Describe the nature of each of the four transactions that took place during October.
B. Comment on the type of financial information conveyed in a balance sheet.
C. Write a retort to the statement that 'a balance sheet should be prepared only once a year'.

Problem 2.5 PREPARATION OF FINANCIAL STATEMENTS **LO 3, 4, 5**

Dawson Industries began operations early in January 2017. On 31 December 2017, records showed the following asset, liability, equity, income and expense amounts:

Accounts receivable	$ 25 600	Lila Dawson, Capital	$?
Rent expense	13 500	Electricity expense	7 200
Cash at bank	10 250	Telephone expense	4 900
Supplies expense	5 250	Advertising expense	12 500
Accounts payable	9 500	Insurance expense	2 500
Service income	147 500	Wages expense	44 000
Supplies	11 000	Drawings	23 400
Equipment	48 000		

Required

A. Prepare an income statement for Dawson Industries for the year ended 31 December 2017.
B. Prepare a balance sheet as at 31 December 2017.
C. Prepare a statement of changes in equity for 2017.
D. Explain the difference between the items ‘supplies’ and ‘supplies expense’.

Problem 2.6 CORRECTION OF FINANCIAL STATEMENTS **LO 3, 4, 5**

A new business graduate with one subject of accounting prepared the financial statements below for Helen’s Dancing School at the end of the first year of operations.

HELEN’S DANCING SCHOOL
Income Statement
for the year ended 30 June 2015

INCOME		
Dancing fees		$115 000
EXPENSES		
Studio rent expense	$18 000	
Wages expense	43 000	
Supplies expense	16 200	
Electricity expense	6 750	
H. Horner, Drawings	11 200	
Depreciation expense		
— vehicle	3 200	
— equipment	4 300	
		102 650
PROFIT		$ 12 350

Balance Sheet
as at 30 June 2015

ASSETS		LIABILITIES	
Cash at bank	$12 600	Accounts payable	$ 13 000
Equipment	17 800	EQUITY	
Vehicle	20 700	H. Horner, Capital	38 100
	$51 100		$ 51 100

Additional analysis revealed the following.

1. Dancing fees of $7500 (owed by customers) were unrecorded at 30 June.
2. Additional equipment of $10 500 purchased with a bank loan at the end of the month had not been recorded.
3. Supplies on hand at 30 June costing $10 600 were included in expenses.
4. Wages of $2500 were payable at 30 June.

Required

A. Prepare a corrected income statement for the year ended 30 June 2015.
B. Prepare a corrected balance sheet in narrative form as at 30 June 2015.
C. Prepare a statement of changes in equity for the year ended 30 June 2015.
D. Discuss the accounting assumptions that the graduate has breached.

Problem 2.7 PERFORMANCE ASSESSMENT FROM FINANCIAL STATEMENTS LO 3, 4, 5

The Marketing Store was established as a sole trader business, specialising in providing marketing services, on 1 January 2016. The owner, Jenny Smart, contributed $100 000 in cash to the business and did not withdraw funds for the year.

For the year ended 31 December 2016, the following events occurred in the business:

1. Received $280 000 cash for marketing services provided.
2. Paid cash expenses of $200 000 for office supplies and labour.
3. At the end of the year, the business purchased a vehicle for $32 000 cash and a new computer design system for $50 000 cash.
4. The business leases premises as an office. Lease rental payments for the year amounted to $33 000.
5. The business purchased for $80 000 a block of land on which Jenny hopes to build an office in the new year. To help pay for the land, the business had to borrow $30 000 from a bank in cash.

Required

A. Prepare an income statement for The Marketing Store for the year ended 31 December 2016.
B. Prepare a statement of cash flows for The Marketing Store for the year ended 31 December 2016.
C. Discuss if a business can operate profitably and still have a net cash outflow for the year.
D. Provide a counter argument to the statement that ‘a better indicator of an entity’s performance is cash flow’.

Problem 2.8 RECORDING TRANSACTIONS AND PREPARING FINANCIAL STATEMENTS LO 3, 4, 5

Financial balances for the car hire business of John’s Limos on 31 March 2016 are provided below in a table in accounting equation form similar to the chapter illustrations.

Assets									=	Liabilities			+	Equity
Cash at Bank	+	Accounts Receivable	+	Office Equipment	+	Motor Vehicles	+	Fuel Supplies	=	Accounts Payable	+	Loan Payable	+	John Limos, Capital
$11 000	+	$15 000	+	$1 500	+	$94 000	+	0	=	$3 500	+	$12 000	+	$106 000

During April, the business of John’s Limos entered into the following transactions.

1. Collected $8000 of the accounts receivable.
2. Paid $2000 of the accounts payable.
3. Purchased another vehicle for $48 000. Paid $5000 in cash and signed a loan agreement for the balance.
4. Billed customers for services performed, $10 500.
5. Fuel supplies purchased on credit, $3750.
6. Paid expenses in cash, $4250 (wages, $2400; car cleaning $1200; advertising, $650).
7. John Limos withdrew $2000 for personal use.
8. Paid parking fines of $300.

Required

A. List the 31 March balances for assets, liabilities and equity in table form as shown above.
B. Record the effects of each transaction. Show the total of each column after recording each transaction.
C. Prepare an income statement, a statement of changes in equity and a statement of cash flows for the month ended 30 April 2016, and a balance sheet (account format) as at 30 April 2016.

Problem 2.9 CLASSIFYING ITEMS FOR FINANCIAL STATEMENTS LO 3, 4, 5

The following list of items relate to the business of Jay Street Wear:

1. cash paid into the business by Jay to begin operations
2. racks purchased to display merchandise to customers
3. building leased for 2 years, with rent payable monthly in advance
4. streetwear items purchased from a manufacturer
5. amount owing to the manufacturer for merchandise purchased
6. insurance premium on the merchandise paid in advance
7. cash withdrawn by Jay for personal use
8. wages paid to casual employee
9. amount borrowed long-term from the bank
10. cash sales of merchandise to customers
11. spare change kept in the cash register at the checkout counter.

Required

A. Identify the elements of the financial statements (asset, liability, income, expense and equity) impacted by each of the transactions.
B. List the cash flow classification (operating, investing or financing) and direction (inflow or outflow) for each transaction.

Problem 2.10 RECORDING TRANSACTIONS AND PREPARING FINANCIAL STATEMENTS LO 2, 3, 5

Financial balances for Ho Ming Wee, Solicitor, on 30 June 2016 are given below in a table in accounting equation form similar to the chapter illustrations.

Assets							=	Liabilities			+	Equity
Cash at Bank	+	Accounts Receivable	+	Office Supplies	+	Office Equipment	=	Accounts Payable	+	Loan Payable	+	Ho Ming Wee, Capital
$8 000	+	$13 250	+	$1 000	+	$19 875	=	$2 425	+	$8 750	+	$30 950

During the early part of July, the business entered into the following transactions.

1. Paid $2360 on accounts payable.
2. Collected $6400 of the monies owed by clients.
3. Purchased office equipment for $10 200. Paid $1500 in cash and signed a loan agreement for the balance.
4. Billed customers for legal services performed, $8820.
5. Purchased supplies on credit, $1200.
6. Paid expenses in cash, $9400 (advertising, $2000; rent, $6000; wages, $1400).
7. Used $500 of supplies during the period.
8. Collected $6750 of accounts receivable.
9. Ho Ming Wee paid for a $12 000 family holiday to Europe using the firm’s bank account.

Required

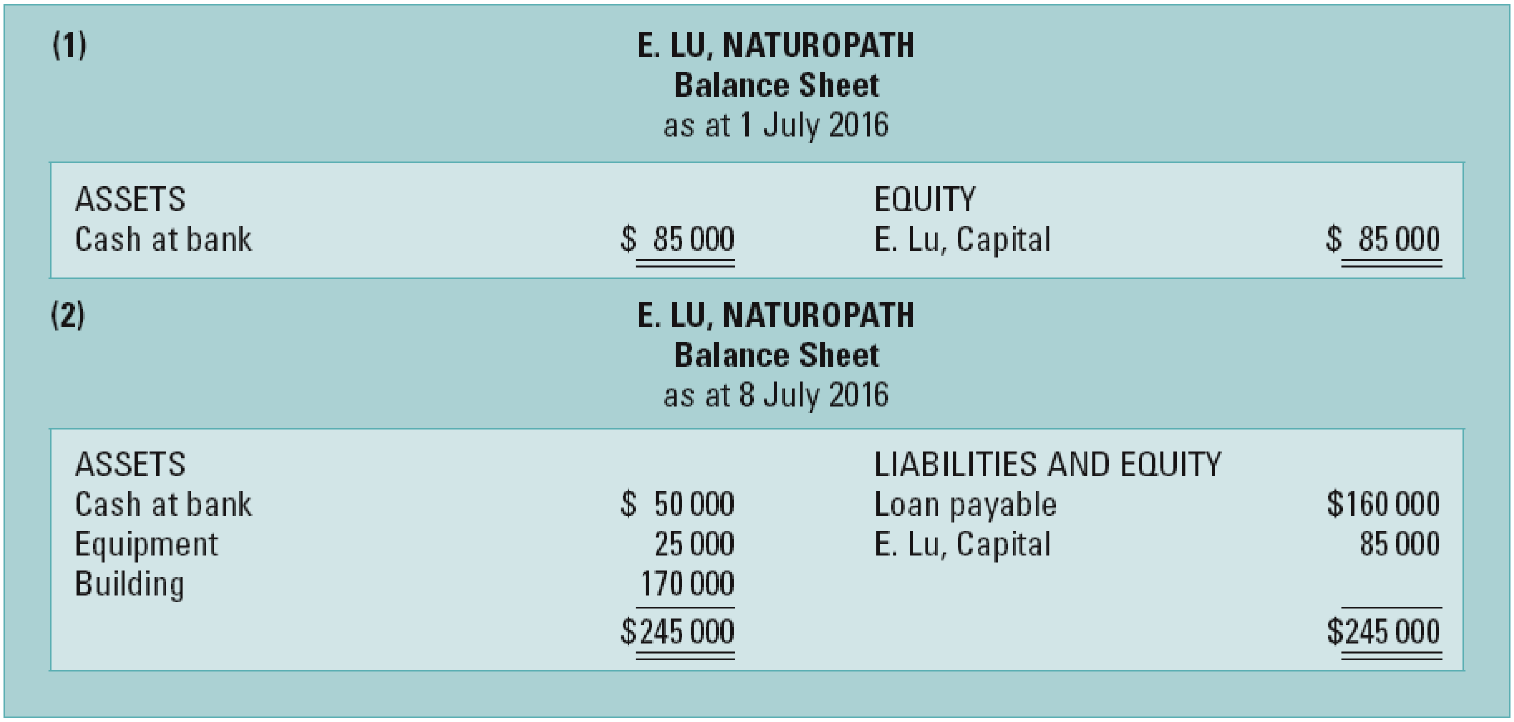
A. List the 30 June balances for assets, liabilities and equity in table form as shown above.
B. Record the effects of each transaction. Show the total of each column after recording each transaction as illustrated in the text.

C. Prepare an income statement and a statement of changes in equity for the month and a balance sheet in narrative format as at 31 July 2016.
D. Discuss if these financial statements are useful for the owner/manager of the business.

Problem 2.11 IDENTIFYING TRANSACTIONS FROM BALANCE SHEET CHANGES **LO 2, 5**

Emma Lu obtained registration to practise as a naturopath, and spent the month of July 2016 setting up her business — E. Lu, Naturopath.

Emma prepared a new balance sheet after each transaction which occurred. During July, the following balance sheets were prepared.



(1)

E. LU, NATUROPATH
Balance Sheet
as at 1 July 2016

ASSETS		EQUITY	
Cash at bank	$ 85 000	E. Lu, Capital	$ 85 000

(2)

E. LU, NATUROPATH
Balance Sheet
as at 8 July 2016

ASSETS		LIABILITIES AND EQUITY	
Cash at bank	$ 50 000	Loan payable	$160 000
Equipment	25 000	E. Lu, Capital	85 000
Building	170 000		
	$245 000		$245 000

(3)

E. LU, NATUROPATH
Balance Sheet
as at 15 July 2016

ASSETS		LIABILITIES AND EQUITY	
Cash at bank	$ 50 000	Accounts payable	$ 3 500
Office supplies	3 500	Loan payable	160 000
Accounts receivable	25 000	E. Lu, Capital	85 000
Building	170 000		
	$248 500		$248 500

(4)

E. LU, NATUROPATH
Balance Sheet
as at 22 July 2016

ASSETS		LIABILITIES AND EQUITY	
Cash at bank	$ 45 000	Accounts payable	$ 3 500
Office supplies	3 500	Loan payable	155 000
Accounts receivable	25 000	E. Lu, Capital	85 000
Building	170 000		
	$243 500		$243 500

(5)

E. LU, NATUROPATH
Balance Sheet
as at 31 July 2016

ASSETS		LIABILITIES AND EQUITY	
Cash at bank	$ 41 000	Accounts payable	$ 3 500
Office supplies	3 500	Loan payable	155 000
Accounts receivable	25 000	E. Lu, Capital	81 000
Building	170 000		
	$239 500		$239 500

Required

A. Describe each of the five transactions that occurred during July 2016.
B. Emma is very focused on the environment. As a manager and owner of the business, discuss the actions that she could take to earn a reputation for having sustainable business practices.
C. Discuss whether you believe that disclosing sustainable business practices enhances an entity's reputation.

Problem 2.12 RECORDING TRANSACTIONS AND PREPARING FINANCIAL STATEMENTS

LO 3, 4, 5

Tran's Clothing Alterations began operations on 1 August 2016 and completed the following transactions during the first month.

1. Tran deposited $18 000 of her personal funds in a current account at a bank opened in the name of the business.
2. Sewing equipment was purchased at a cost of $9000, of which $5000 was paid in cash. A loan payable was given for the remainder of $4000.
3. Tran collected $1500 from customers for alteration services performed.

4. Rent was paid for the month of August, $1200.
5. Sewing supplies amounting to $700 were purchased on credit.
6. Wages of $500 were paid as well as an account for electricity, $250.
7. Tran paid for the sewing supplies purchased in (5) above.
8. Supplies used during August amounted to $300.

Required

A. Prepare a schedule similar to that on page 51. List the following assets, liabilities and equity as column headings: Cash at Bank; Supplies; Equipment; Loan Payable; Accounts Payable; Tran, Capital.

B. Illustrate the effects of each of the transactions on the accounts listed. Indicate totals after each transaction and complete the schedule.
C. Prepare an income statement, a statement of cash flows and a statement of changes in equity for the month ended 31 August 2016.
D. Prepare a balance sheet as at 31 August 2016.

Problem 2.13 CORRECTING ERRORS AND PREPARING FINANCIAL STATEMENTS **LO 3, 5**

Baker's Bread Shop was established on 1 April 2016 with an initial investment of $100 000 by the owner. During the first few weeks of business, the owner employed a part-time accountant (with only a few months experience) who recorded the following list of assets:

Accounts payable	$ 37 100
Buildings	100 000
Cash at bank	31 000
Furniture	12 000
A. Baker, Capital	150 000
Baking supplies	5 600
Loan payable	20 700

The accountant also recorded the following list of liabilities and equity:

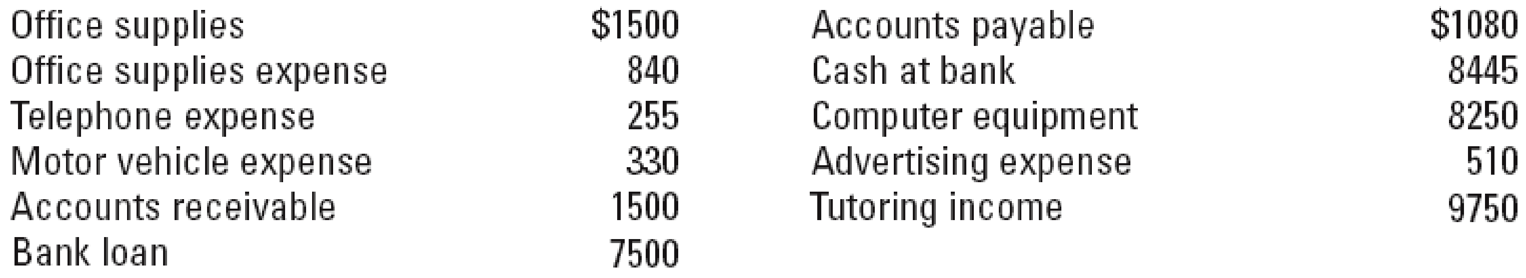
Accounts receivable	$20 000
Land	43 200
Mortgage payable	40 000
Cash drawings by A. Baker	36 000

Required

A. Assuming that the amounts above are correct, prepare a corrected balance sheet in narrative form.
B. Determine the amount of profit (loss) made by the business during the period of its first few weeks of existence, assuming that the owner had invested an additional $20 000 into the business just before the above amounts were calculated by the accountant.
C. Prepare a statement of changes in equity for the period.

Problem 2.14 ANALYSING FINANCIAL STATEMENT ELEMENTS **LO 1, 3, 5**

Jason Vu offers tutoring services to first-year university students. He has set up a sole proprietorship business named JV Tutoring. Jason has collected the following information relating to his business activities at the end of the financial year:



Office supplies	$1500	Accounts payable	$1080
Office supplies expense	840	Cash at bank	8445
Telephone expense	255	Computer equipment	8250
Motor vehicle expense	330	Advertising expense	510
Accounts receivable	1500	Tutoring income	9750
Bank loan	7500		

The following information was disclosed from examining Jason's bank statement:

Tutoring receipts	$8250	Payments to suppliers	$2355
Initial contribution by James	3300	Repayment of loan	1500
Bank loan received	9000	Computer equipment purchase	8250

Required

A. Without preparing formal financial statements, calculate the following:
   1. profit/loss for the year
   2. total assets at the end of the year
   3. total liabilities at the end of the year
   4. Jason Vu's capital balance at the end of the year
   5. net cash inflow/outflow for the year.

B. Recalculate the figures you provided in requirement A, assuming that Jason had withdrawn $5000 in cash during the year.

C. Jason cannot deal with the demand for tutoring services. Simon, Jason's friend, is prepared to make a capital contribution and join the business as an owner. Advise Jason on the advantages and disadvantages of establishing the business as a partnership or company.

Problem 2.15 PREPARATION OF FINANCIAL STATEMENTS LO 3, 4, 5

Yamindi was raised on a farm in the Northern Territory. While in high school, he was an active member of the local rural youth club and raised several prize animals that he sold at auction at state and local shows. He saved his earnings and by the time he finished secondary school, Yamindi had nearly $5000 in a savings account. He was undecided whether to go on to tertiary education or use his savings in a business venture. Because of his love for animals, he believed he could successfully operate a pet warehouse store and decided to use the summer months as a trial.

During the month of October 2016, Yamindi located a small building that he could rent for $100 per month. After transferring $3000 from his savings account to a business bank account in the name of Pet Warehouse, he paid cash out of the account for rent and the purchase of supplies. Although he would not keep a full set of accounting records, he decided to deposit all receipts from sales into the bank account and to make all payments by direct debit out of the account. In this way he would have a relatively complete record of his business activities. Yamindi also kept a daily work book in which he recorded all sales to customers.

On 1 November, Yamindi opened his warehouse to the public. During the first 3 months, he was unusually busy. Early in February he needed to make a decision on continuing the operation of the business or to enrol for the first semester at university. To help him make this important decision, Yamindi reviewed his bank account and daily sales book to determine how well he had done. The review disclosed the following.

1. Total cash deposited in the account (including the initial $3000 deposit) was $8920.
2. The daily work book showed that on 31 January customers owed him $1000 for goods supplied, which he expected to collect during February.
3. Direct debits had been made out of the account for:
   - **(a)** Rent payments, $400 for the months of November to February.
   - **(b)** The purchase of grooming equipment, $4500. The equipment cost $5000 and Yamindi still owed the supplier $500 on the purchase.
   - **(c)** Grooming supplies, $560. Yamindi estimated that the cost of grooming supplies on hand at 31 January was $160.
   - **(d)** The payment of electricity bills for the months of November and December, $600. He had just received his bill for the month of January for the amount of $350, but had not yet paid it.
   - **(e)** Advertising paid, $1216.
   - **(f)** Withdrawals made by Yamindi to pay for personal expenses, $1300.

Required

A. Prepare an income statement for Yamindi's Pet Warehouse for the 3-month period from 1 November 2016 to 31 January 2017.
B. Prepare a balance sheet as at 31 January 2017 and a statement of changes in equity for the 3-month period.
C. What other information would you need to determine how well Alicia had done during the 3-month period?

DECISION ANALYSIS

Schutz Building Services financial statements

Schutz Building Services is a fast-growing business in the housing industry. Johan Schutz started the business 3 years ago and has worked hard to establish the firm. Johan has no accounting knowledge and simply keeps his invoices and receipts in a shoebox that he takes to his accountant once a year to be sorted out and turned into financial statements for tax purposes. Johan does not use the financial statements for decision making. So long as he has cash in the bank, Johan is satisfied with how his business is operating. Unfortunately, Johan's accountant has suddenly left the country and retired to South America.

Johan is negotiating a contract with a supplier of building materials who wants to see his financial statements to ensure that Johan can meet his payments each month. Johan has asked you to prepare financial statements. Based on his last tax return and the contents of his shoebox for this year, you have established the following items:

Cash in the shoebox (with the receipts and invoices)	$ 500
Cash in the bank account	3 800
Building services provided	550 000
Amounts owed by customers	80 000
Wages paid to employees	150 000
Wages owed to the employees	3 500
Equipment	68 000
Building supplies used	310 000
Building supplies on hand	18 000
Amounts owed to suppliers	30 000
Motor vehicle	32 000
Motor vehicle expenses	5 600
Electricity and telephone expense	4 000
Cash used by Johan for personal expenditure	5 700

Required

A. Using the information above, provide an income statement and a balance sheet in narrative form for Schutz Building Services for the current period.
B. How would the financial statements you produce help the supplier of building materials decide whether or not to trade with Johan? What parts of the financial statements would be positive indicators that Schutz Building Services would pay for supplies on time and what items may cause some concern for the supplier?

CRITICAL THINKING

Sporting glory — the great intangible

Read the following article from ***Australian CPA***.

> ***While rugby stars are heroes to many, when checking the books they become a complex intangible. Rosalind Whiting and Kyla Chapman investigate the merits of Human Resource Accounting in professional sport.***

Australia, New Zealand and rugby union — a combination guaranteed to stir patriotic feelings across the Tasman! But what if we add accounting to this equation? Rugby players are the teams' most valuable assets, so should we be placing their value on the balance sheet? And if so, does it make any difference to the decisions that users of financial statements make?

Human resource accounting in professional sport

Professional sport has been prevalent in the United Kingdom and the United States for nearly 200 years. However, professional sport arrived later to Australia and New Zealand. In particular, the Kiwis only entered this arena in 1995 when the New Zealand Rugby Football Union (NZRFU) signed the Tri Nations sponsorship deal and removed all barriers preventing rugby union players being paid for their services. Player contract expenses in New Zealand now amount to over NZ$20 million annually, according to the NZRFU.

In the United Kingdom and the United States, the professional teams' financial accounts quite often incorporate human resource accounting (HRA). HRA is basically an addition to traditional accounting, in which a value for the employees is placed on the balance sheet and is amortised over a period of time, instead of expensing costs such as professional development.

There is debate about the merits of this process and the arguments are in line with those we have been hearing about intangibles in general. More recently, there has been worldwide movement towards recognising acquired identifiable intangible assets at fair value in the financial statements. So why not include an organisation's human resources? While (thankfully) most people agree that employees are valuable, there are accounting difficulties with the concept of ownership or control of the employees (asset definition) and the reliability of measurement.

Despite these concerns, one area where HRA does have some international accept ability is in accounting for professional sport, mainly because of the measurable player transfer costs. But there is still some variability in the reporting of human resource value, ranging from the capitalisation of signing and transfer fees through to player development costs or valuations.

To the authors' knowledge, HRA is not currently practised with Australia and New Zealand's professional sports teams. The absence of transfer fees between clubs when trading players may explain this.

Decision making

Accountants are required to provide information that assists users in assessing an organisation's financial and service performance and in making decisions about providing resources to, or doing business with, the firm.

The big question is whether HRA information is more useful to the decision maker than the alternative expensing treatment. Supporters of HRA argue that capitalised information is useful for strategic planning and management of employees, and provides a more accurate measure of the firm's status and total performance.

Those against HRA say it is too subjective to be useful and that it just imposes another cost on the organisation. Some detractors argue that it makes unprofitable organisations appear profitable simply because smart people work there. But those who believe in the efficiency of the market would argue that investors are not naive, and decisions would be unaffected by the way in which human resource information is presented.

Source: Excerpts from Whiting, R & Chapman, K 2003, 'Sporting glory — the great intangible', ***Australian CPA***, February, pp. 24–6.

Required

Discuss whether rugby players are 'valuable assets' of a business, or an expense. Use the definitions of assets and expenses in this book to show which of the elements of the financial statements 'human resources' should be classified under.

COMMUNICATION AND LEADERSHIP

Performance of accounting firms

The ownership structure of professional service firms, such as accounting firms, can vary. In an exploratory study, Pickering (2012) compares the performance of accounting firms with different ownership structures. In groups of three or four, consider the following issues related to Pickering (2012).

Required

A. Discuss the different forms of ownership a professional service firm can take.
B. Articulate the research question that Pickering (2012) is trying to address.
C. Explain the research design used by Pickering (2012) to address the research question.
D. Summarise the findings of Pickering (2012).

Source: Pickering, M 2012, 'Accounting Firms: Exploring Relative Performance, Performance Measurement and Measurement Issues', ***Australasian Accounting Business and Finance Journal***, vol. 6, iss. 3.

ETHICS AND GOVERNANCE

Bribing government officials

Read the following article and answer the questions.

> A BHP Billiton mining deal being investigated for alleged corruption was personally overseen by Cambodian strong man Hun Sen, diplomatic cables reveal. The mining giant's aborted attempt to establish a bauxite mine in Cambodia and its hospitality program for Chinese officials at the 2008 Beijing Olympics are at the centre of a foreign bribery probe involving the Australian Federal Police and the US Justice Department.
>
> Diplomatic cables, several marked 'sensitive' and 'protected', show for the first time Cambodian Prime Minister Hun Sen's close involvement in 2006 negotiations with BHP executives. The cables show Hun Sen told a private audience in Cambodia that he would give 'BHP 1 million hectares of land' weeks before the 2006 agreement was signed. He also promised the company 'a possible tax holiday' and chaired a committee examining legal issues associated with the BHP proposal.
>
> The cables reveal how BHP decided to stop all mineral exploration in Cambodia in 2009 just months after a British-based non-government organisation exposed its 'tea money' payments of US$3.5 million to Cambodian government departments and raised concerns some of the money had gone missing. There is no evidence suggesting any of the money went to Hun Sen, who has dismissed reports suggesting BHP was involved in bribery in Cambodia.
>
> The cables, released under FOI by the Department of Foreign Affairs and Trade, show BHP in 2006 took what Australian officials regarded as an unusual step of asking them to directly approach Hun Sen for a meeting to 'go to the next level and close the deal'. Although Australian officials rejected the request to approach the Cambodian leader on BHP's behalf in order to 'preserve our political capital', embassy staff in Phnom Penh contacted Hun Sen's office to get a contact name and number to pass to BHP.

> In September 2006, Hun Sen and BHP executives signed an agreement granting the firm and joint venture partner Mitsubishi rights to explore a huge area of land for bauxite deposits. The deal was ratified by Hun Sen and then prime minister John Howard weeks later.
>
> The cables make clear that although BHP's exploration process was progressing slowly during 2007 and 2008, the company's Cambodia-based executives were optimistic about the project's success. However, the diplomatic cables show a change in BHP's stance on Cambodia shortly after the February 2009 release of the Global Witness report.
>
> In April 2009, Australian diplomats sent a 'confidential' cable to Canberra raising doubts about BHP's long-term commitment to Cambodia, blaming the global financial crisis and the country's 'own poor financial management'. The cable stated that any withdrawal by BHP would 'not only breach BHP's MOU with the Cambodian government (signed in the presence of prime ministers Hun Sen and

Howard in Canberra in 2006)', but would also 'diminish Australia's influence in this major sector'.

Australian diplomats in Phnom Penh also sent a cable to Canberra in response to the claims by Global Witness stating that 'the specific references [to] Australian companies are very concerning'. However, they remained confident BHP had done nothing wrong.

BHP told the Australian government in June 2009 that it would pull out of Cambodia because the bauxite deposit was not worth mining due to global financial conditions.

Source: Baker, R & McKenzie, N 2013, 'Cambodian PM linked to talks', ***The Age,*** 26 March.

Required

A. Identify the stakeholders in this situation.
B. Determine the ethical issues (if any) involved.
C. Comment on the ethics of bribing officials in a country where you are conducting business given that such actions are part of the country's normal business practice, but they are unacceptable in your own country.
D. The article refers to a Global Witness report. Provide a dossier on Global Witness (see http://www.globalwitness.org/).
E. The article also refers to BHP's hospitality program for Chinese officials at the 2008 Beijing Olympics also being at the centre of a foreign bribery probe. Identify the nature of the concerns and discuss why the activities are alleged to be inappropriate.

FINANCIAL ANALYSIS

Refer to the latest financial report of Apple on its website, http://investor.apple.com. Answer the following questions using the consolidated balance sheet and notes to the consolidated financial statements.

A. State the accounting equation for Apple in dollar figures at the end of the reporting period for the end and beginning of the last reporting year. Comment on what this reveals about Apple's financing policy.
B. Explain why the change in total assets equals the change in total liabilities plus the change in total equity.
C. State Apple's profit (loss) for the last reporting year.
D. Determine Apple's net increase (decrease) in cash flows for the last reporting period in aggregate and by operating, investing and financing categories.
E. Explain how Apple could apply the principle of materiality of an item of financial information when preparing financial reports.
F. In the business case at the start of this chapter, Apple is identified as a company that ranks highly on the Global Reputation Index. Research and report on the factors that contribute to Apple's high ranking in this index.
G. Corporate reporting is evolving and is more than reporting on profits. Reporting on the entity's performance related to people and the planet is increasingly important and included within the annual report or as a stand-alone report. List examples of such reporting by Apple.

1. Suggestions to amend the definition of an asset are discussed in chapter 10.

2. Suggestions to amend the definition of a liability are discussed in chapter 10.

Part 2

Accounting systems and processes

CHAPTER 3

Recording transactions

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the steps in the decision-making process (pp. 5–6)
- the nature of assets, liabilities, equity, income and expenses (pp. 39–40)
- the accounting equation, and its purpose (p. 39)
- the nature of the balance sheet, the income statement, the statement of changes in equity and the statement of cash flows (pp. 38–40)
- the assumptions made by accountants in the preparation of financial statements (pp. 44–5).

Learning Objectives

After studying this chapter you should be able to:

1 identify the nature, purpose and evidence for transactions (pp. 74–6)
2 describe the accounting cycle used to record, classify and summarise transactions, including the use of ledger accounts and the general ledger (pp. 76–85)
3 outline the rules of debit and credit used in double-entry accounting and how to apply these rules in analysing transactions (pp. 85–7)
4 explain the purpose and format of the general journal, record transactions in the general journal and transfer the information to the general ledger (pp. 88–105)
5 discuss the purpose of a trial balance and how to prepare one (pp. 105–7)

Luca Pacioli: the father of accounting

Luca Pacioli was one of the greatest men of the Renaissance. He is also one of the least well known. This is surprising, for Luca Pacioli's manuscripts and ideas changed the way the world worked then, and continue to affect modern daily life.

Luca Pacioli was born in Sansepulcro, in Tuscany. He was probably born during 1445. His family was poor, and Pacioli's future seemed very unpromising. Pacioli joined a Franciscan monastery in Sansepulcro and became an apprentice to a local businessman. The young Pacioli had always loved mathematics though, and he soon abandoned his apprenticeship to work as a mathematics scholar …

The year 1494 is the only date during Pacioli's life that is absolutely certain. It was during this year that the 49-year-old Pacioli published his famous book ***Summa de Arithmetica, Geometria, Proportioni et Proportionalita*** (The Collected Knowledge of Arithmetic, Geometry, Proportion and Proportionality). Pacioli wrote the ***Summa*** in an attempt to redress the poor state of mathematics teaching in his time. One section in the book made Pacioli famous. The section was ***Particularis de Computis et Scripturis***, a treatise on accounting … Pacioli was the first person to describe doubleentry accounting, also known as the Venetian method. This new system was state-of-the-art, and revolutionised economy and business. The ***Summa*** made Pacioli a celebrity and ensured him a place in history as 'The Father of Accounting'. The ***Summa*** was the most widely read mathematical work in all Italy, and became one of the first books published on the Gutenberg press.

Pacioli's important manuscript made him instantly famous, and he was invited to Milan to teach mathematics at the Court of Duke Lodovico Maria Sforzo. One of his pupils would be Leonardo da Vinci. During the 7 years Pacioli and da Vinci spent together, the two would help each other create two masterpieces that would withstand the test of time. Da Vinci illustrated Pacioli's next and second most important manuscript ***De Divina Proportione*** (Of Divine Proportions). Pacioli taught da Vinci perspective and proportionality. This knowledge allowed da Vinci to create one of his greatest masterpieces ... ***The Last Supper***. The geometry Pacioli taught to da Vinci would occur in many of da Vinci's later works. Da Vinci mentions Pacioli many times in his notes.

Source: Excerpts from article by Flyn Flesher.

Chapter preview

This chapter examines the basic procedures used in a manual accounting system to analyse, record and summarise the effects of transactions on an entity in order to generate information for use in decision making. The recording and summarising functions are mainly performed by computers, as we shall see in chapter 7, but the data gathered and stored in a computerised system are based on an analysis similar to the manual one developed in this chapter. To effectively use financial reports for decision making, it is essential that we understand the underlying accounting system, and this is most easily done by studying the procedures used in a manually operated system, developed originally by Pacioli in the fifteenth century (see the scene setter).

This chapter describes the basic procedures used to record the effects of transactions on an entity's financial position. The focus is on any entity that performs services for its customers/clients. Accounting for entities that engage in retailing and manufacturing operations is examined in later chapters.

3.1 Transactions

LO 1 **Identify the nature, purpose and evidence for transactions.**

Types of transactions

External transactions. An entity may engage in transactions with outside parties that affect its financial statements. Examples include:

- the purchase of equipment
- the performance of services for others (e.g. medical, legal, cleaning, marketing, public relations)
- the provision by others of a service for the entity
- borrowing money from a bank
- the purchase of supplies (e.g. stationery, fuel).

These transactions are recorded by the accountant and are called **external transactions** because there is an exchange of economic resources and/or obligations between the entity and one or more outside parties. In other words, in an external transaction the entity gives up something and receives something in return.

Internal transactions. Other economic events that do not involve external transactions are recorded because they affect the internal relationships between the entity's assets, liabilities and equity. Use of office supplies by the entity's employees and of equipment to perform a service are examples of **internal transactions**. Other events, such as the destruction of an office building by fire, are also given accounting recognition because the entity's assets and equity are decreased. The term ***transaction*** is often used to refer to all events that are recorded in the accounting system.

Non-transaction events. Some events are not usually recorded because there has not been an exchange of goods or services. For example:

- receiving an order from a customer
- signing a contract to purchase an asset in the future
- hiring an employee

- changing interest rates.

These situations are not captured by the accounting system because a transaction is not considered to have taken place at this point. These events will be recognised in the accounting system in the future if they result in a transaction.

Accounting is based on a set of rules for determining which events constitute accounting transactions. Two of the difficulties you will face in the study of accounting are (1) determining which events to record now and (2) deciding at what stage in the future an event should be recorded in the accounting system. Unfortunately, there are no simple rules.

Transactions of a business entity

Assets represent resources controlled by an entity which are expected to provide future economic benefits to the entity. The initial source of assets for any business is an investment by the owner(s). Although the investment may take various forms (such as cash at bank, land or equipment), the initial investment is often cash. Individuals invest in a business in the expectation of eventually being able to withdraw assets in excess of those invested. They expect that the business will operate at a profit and that they will receive a return on their investment.

Cash is useful as a medium of exchange or as a measure of value, but it is essentially a non-productive asset. In order to generate income, the business acquires productive resources such as buildings, machinery and equipment. These non-cash resources are used to provide goods or services to customers in exchange for income in the form of cash or the customers' promises to pay cash in the future. Cash received from customers is then used to pay the expenses and obligations of the business. Any remaining cash may be held to pay future obligations, to finance future expansion, to invest, or to distribute to owners as a return on their investment.

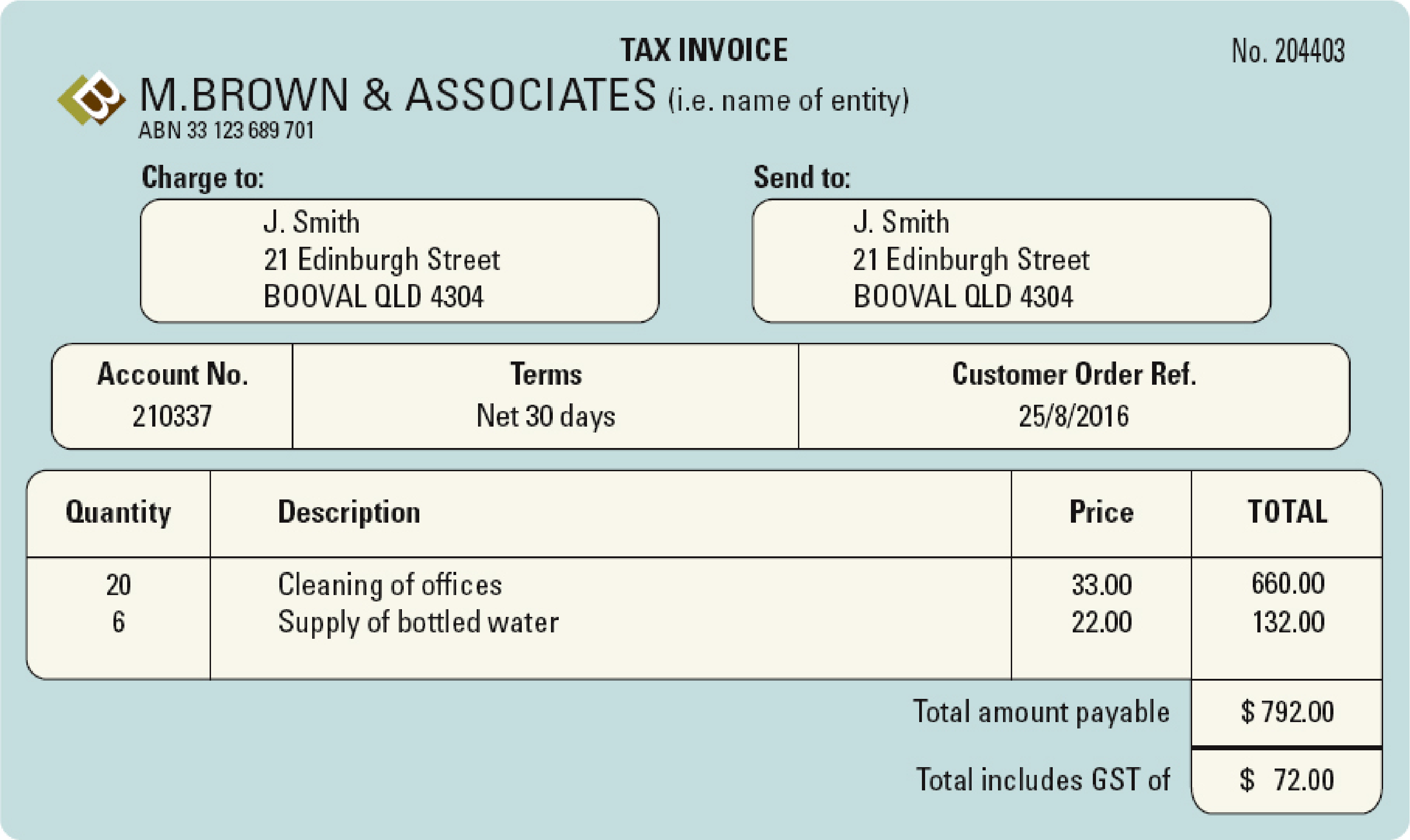
Large and medium-sized entities are also required by government to capture data in relation to greenhouse gas emissions (e.g. kilotonnes of carbon dioxide emitted) in order to measure their carbon footprints. This information is required for each entity to prepare its sustainability report, as discussed briefly in chapter 1. Additional data must also be captured for each entity to prepare a social impact report that outlines, for example, non-financial contributions to the wellbeing of the townspeople in which the entity operates. This chapter, however, deals only with transactions that capture financial data.

Source documents

A **source document**, such as a tax invoice for the performance of services, purchase order, cash register tape, credit card slip or cheque, is prepared for every external transaction entered into by an entity and has two purposes: (1) it provides written evidence of a transaction and is used by accountants to support entries in the accounting records; (2) it is an important part of controlling an entity's resources. For each external transaction recognised by the accountant, there should be at least one supporting source document.

For example, figure 3.1 illustrates a typical tax invoice, which is regarded as evidence that an entity has performed services for a customer. From a copy of the tax invoice (the original is given to the customer), the entity can record the performance of the service, the name and address of the customer, details of payments to be received from the customer, and goods and services tax (GST) to be collected.

Figure 3.1 Typical tax invoice



TAX INVOICE

No. 204403

M.BROWN & ASSOCIATES (i.e. name of entity)
ABN 33 123 689 701

Charge to:

J. Smith
21 Edinburgh Street
BOOVAL QLD 4304

Send to:

J. Smith
21 Edinburgh Street
BOOVAL QLD 4304

Account No.	Terms	Customer Order Ref.
210337	Net 30 days	25/8/2016

Quantity	Description	Price	TOTAL
20 6	Cleaning of offices Supply of bottled water	33.00 22.00	660.00 132.00
		Total amount payable	$ 792.00
		Total includes GST of	$ 72.00

On the tax invoice illustrated in figure 3.1, note that there is an item called 'ABN', followed by a number. ABN means **Australian business number**, a separate number given to all business entities which have registered with the Australian Taxation Office (ATO); it also covers the registration for the GST in Australia. At the bottom of the tax invoice is another line indicating that

the $792 total of the invoice 'includes GST of $72'. In other words, the business of M. Brown & Associates will eventually collect $72 of GST from its customer, J. Smith. The business owes this amount to the ATO and will regularly pay the amount owing for GST. For further coverage of the basics of GST in Australia, refer to the appendix to this chapter (p. 108). A GST or similar retail tax is imposed in several countries.

Other commonly used source documents are:

- purchase order — when goods or services are ordered from a supplier
- tax invoice for purchases — invoice received from a supplier of goods/services
- cash register tapes — to record cash received for cash sales through a cash register
- credit card slips — to record sales made on credit cards
- cheque butts — to record payments made by cheque to creditors for goods and services.

Tax invoices can be prepared manually or by computer and are used subsequently for data entry in both manual and computerised accounting systems. In most modern computerised systems, the preparation of the invoice and the input of invoice data into the accounting system are done simultaneously, e.g. updating inventory records and recording amounts owed by customers. Increasingly, manually prepared source documents are being replaced by electronic source documents.

BUSINESS KNOWLEDGE

Red flags to crime

It happens. Fraud valued at more than $100 000 hit 63 times in the last six months of last year, totalling $131 million and that's just those that made it into court.

KPMG's partner in charge of Forensic, Gary Gill, says businesses should start with recruitment. 'Fraud happens where the money is,' Gill says.

Most accounting systems can search for matches between supplier accounts and employees, check for invalid ABNs, whether invoices are improbably sequential and look for similarities that may signal a would-be fraud.

Gill says business owners often ignore backup systems and so lose evidence of the fraud through oversight. This may hurt when trying to claim on fidelity insurance, he says. . .

Business owners should regularly review bank reconciliations to check for a growing discrepancy between accounting records and actual cash and be aware of who can authorise payments and change accounting records.

Source: Emmerson, R 2012, 'Red flags to crime', ***Herald Sun***, 26 November.

LEARNING CHECK

☐ Transactions are economic events recorded in an accounting system.
☐ Various transactions occur in the life of an entity — external transactions, internal transactions, and non-transaction events.
☐ Accounting is based on a set of rules for determining which events constitute accounting transactions.
☐ Source documents are used initially to record transactions.

3.2 The accounting cycle

LO 2 Describe the accounting cycle used to record, classify and summarise transactions, including the use of ledger accounts and the general ledger.

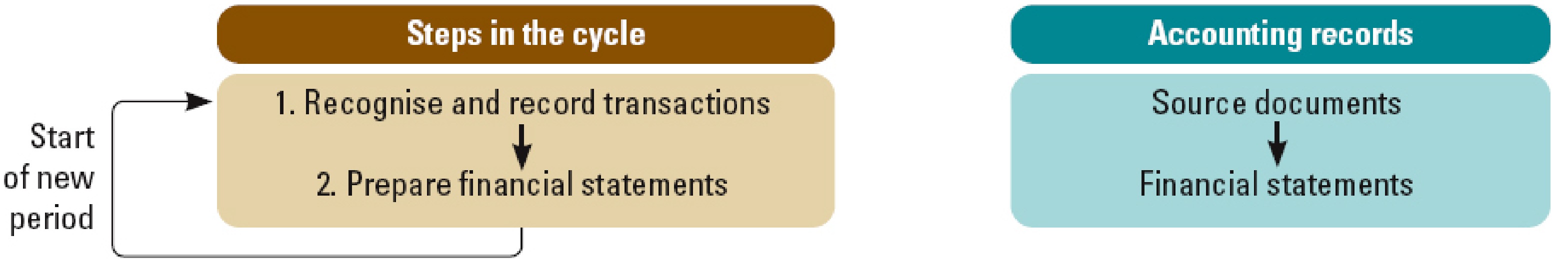
During the life of the entity, financial statement users must regularly make decisions regarding the entity, and therefore must be provided with timely information on a periodic basis. In order to report on the periodic progress of the entity over time, its life is divided into arbitrary time periods of equal length called **accounting periods**.

Accounting periods need to be of equal length so that statement users (internal or external to the business) can compare financial performance in the current period with that of previous periods. The length of the accounting period depends on the needs of interested parties. For example, the business's manager may want financial statements on a monthly basis, whereas the shareholders or owners may receive financial statements only on a yearly basis. For most companies, a complete set of financial statements (which are included in the **annual report**) is issued to shareholders only once a year. Commonly, entities select the financial year as a reporting period, e.g. 1 July 2015 to 30 June 2016. However, any 12-month period can be used as the time period for annual reporting purposes, e.g. 1 April to 31 March, 1 January to 31 December.

Financial statements are used by creditors and other interested external parties to assess the entity's progress over time. The basic accounting period for which financial statements are presented is 1 year, but half-yearly and quarterly statements are sometimes required by external parties to provide more timely information on the activities of the entity. Many entities also prepare monthly or weekly statements for internal use by management. Statements prepared for external users before the end of the annual period are called **interim statements**.

During each period, steps and procedures are followed within the accounting function to ensure that all transactions are properly recorded, and records are kept to ensure that the financial statements can be prepared at the end of the accounting period. These steps and procedures, culminating in the preparation of financial statements, are referred to as the **accounting cycle**. The basic two-step accounting cycle is shown in figure 3.2.

Figure 3.2 The basic accounting cycle



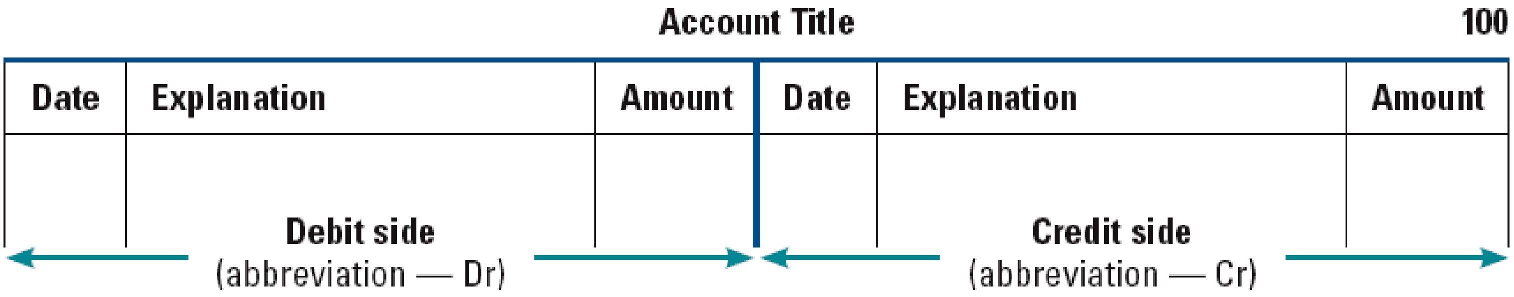
In practice, there are a number of additional steps or procedures which must occur between the recording of transactions and the preparation of financial statements. These are added progressively in this and later chapters.

The ledger account

Each transaction recorded results in an increase or decrease in one or more of the assets, liabilities, equity, income or expenses. A part of the accounting function is to classify the effects of transactions into these categories and to summarise the results in the entity's financial statements. To help in the collection of financial statement data, transactions are recorded in ledger accounts.

An **account** provides a record of increases and decreases in each item that appears in the financial statements. Thus, an entity typically has an account for each kind of asset, liability, equity, income and expense item. For example, a business maintains a separate account to record increases and decreases in cash, a separate account to record increases and decreases in accounts receivable, a separate account for accounts payable, another account for the owner's capital, and so on. All the accounts maintained by an entity to enable preparation of the financial statements are collectively called the **general ledger**.

Each account has three basic parts: (1) a title, which should be descriptive of the nature of the items being recorded in the account; (2) a place for recording increases; and (3) a place for recording decreases. Also, accounts typically provide space for recording an account number, the date of the transaction and an explanation of the transaction. One format, called a **T account** because of its similarity to the letter T, is shown below. Other formats are illustrated later in this chapter.



A T account has a left-hand side, called the **debit** side, and a right-hand side, called the **credit** side. An account is debited when an amount is entered on the left-hand side and credited when an amount is entered on the right-hand side. These terms have come down to us from Latin origins through Pacioli's original work on accounting (see the scene setter).

After the transactions are entered, including date, explanation (which describes the other accounts that are affected by the transaction) and amount, the **account balance** (the difference between the sum of its debits and the sum of its credits) can be calculated. If the sum of the debits

exceeds the sum of the credits, the account has a debit balance. A credit balance results when the sum of the credits is greater than the sum of the debits. An account will have a zero balance if the sum of the debits equals the sum of the credits.

A summary of all increases and decreases in the account Cash at Bank for Cynthia's Beauty Services can be presented in T-account form as illustrated below. Note that, for an asset, all increases are recorded as debits and all decreases as credits (see p. 77).

Cash at Bank

Date	Explanation	Post Ref*	Amount	Date	Explanation	Post Ref*	Amount
2016				2016			
2/1	Cynthia Jones, Capital		53 000	3/1	Vehicle		32 000
20/1	Beauty Services Income		4 500	3/1	Beauty Services Equipment		6 000
31/1	Accounts Receivable		1 550	22/1	Employee Wages Expense		600
				31/1	Accounts Payable		2 500
				31/1	Cynthia Jones, Drawings		200
					Balance c/d		17 750
			59 050				59 050
	Balance b/d		17 750				

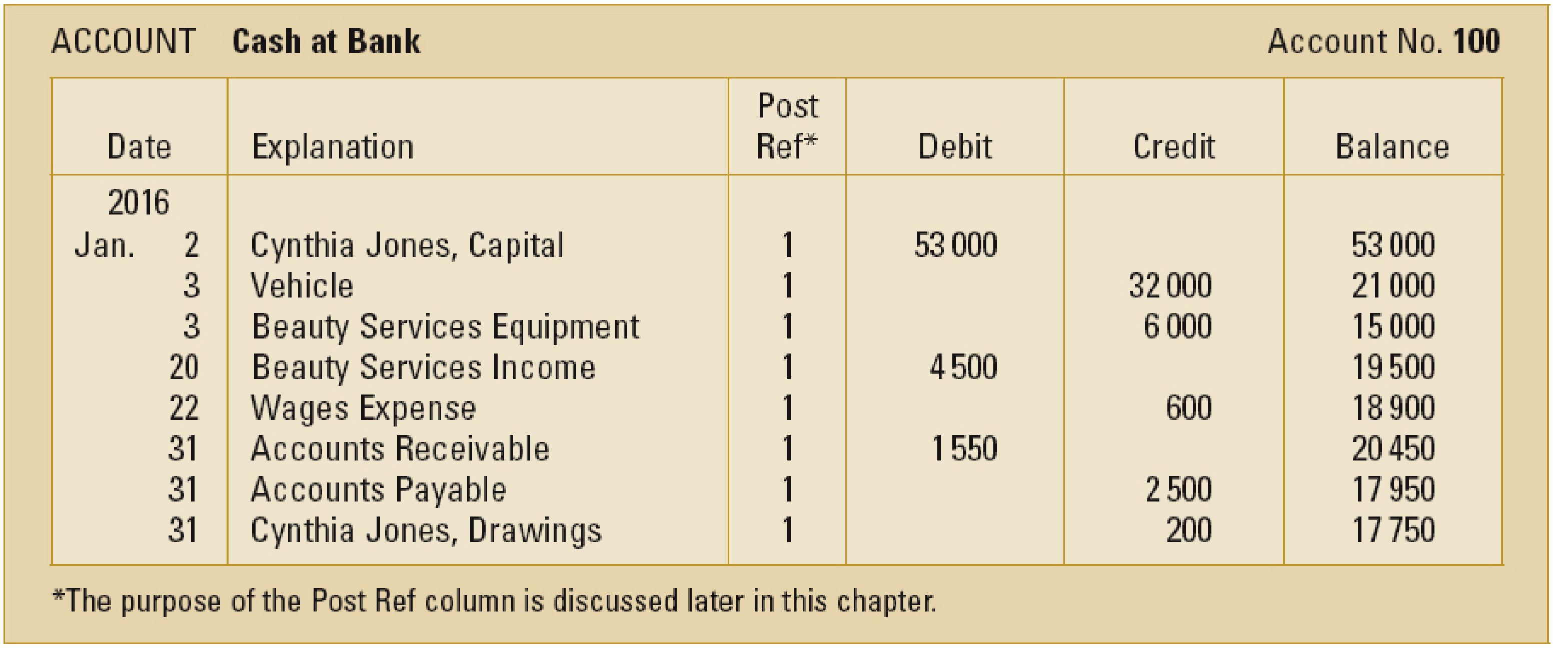
*The purpose of the Post Ref column is discussed later in this chapter.

The entity's cash receipts or deposits are recorded on the debit (or left) side of the account and cash payments, disbursements or withdrawals are entered on the credit (right) side. Recording the receipts and payments separately helps determine the account balance. Cash receipts of $59 050 were deposited in the bank and exceeded the payments of $41 300, resulting in a debit balance of $17 750. The balance to be carried down (c/d) is entered on the credit side which will then make the total on each side the same or 'in balance'. In a T-account format the total is written on both sides on the same horizontal row and the balance is brought down (b/d) and inserted under the total on the debit side of the account. A balance sheet (also called the statement of financial position) prepared at this time would report $17 750 in the Cash at Bank account as an asset.

Account formats

The T-account format is a convenient way to show the effects of transactions on individual accounts and is used commonly in accounting textbooks and in classroom illustrations. In practice, however, ledger accounts generally take the format shown in figure 3.3, known as a **running balance account**. This account format provides not only all the information shown in a T account but also a balance after each transaction.

Figure 3.3 A running balance account



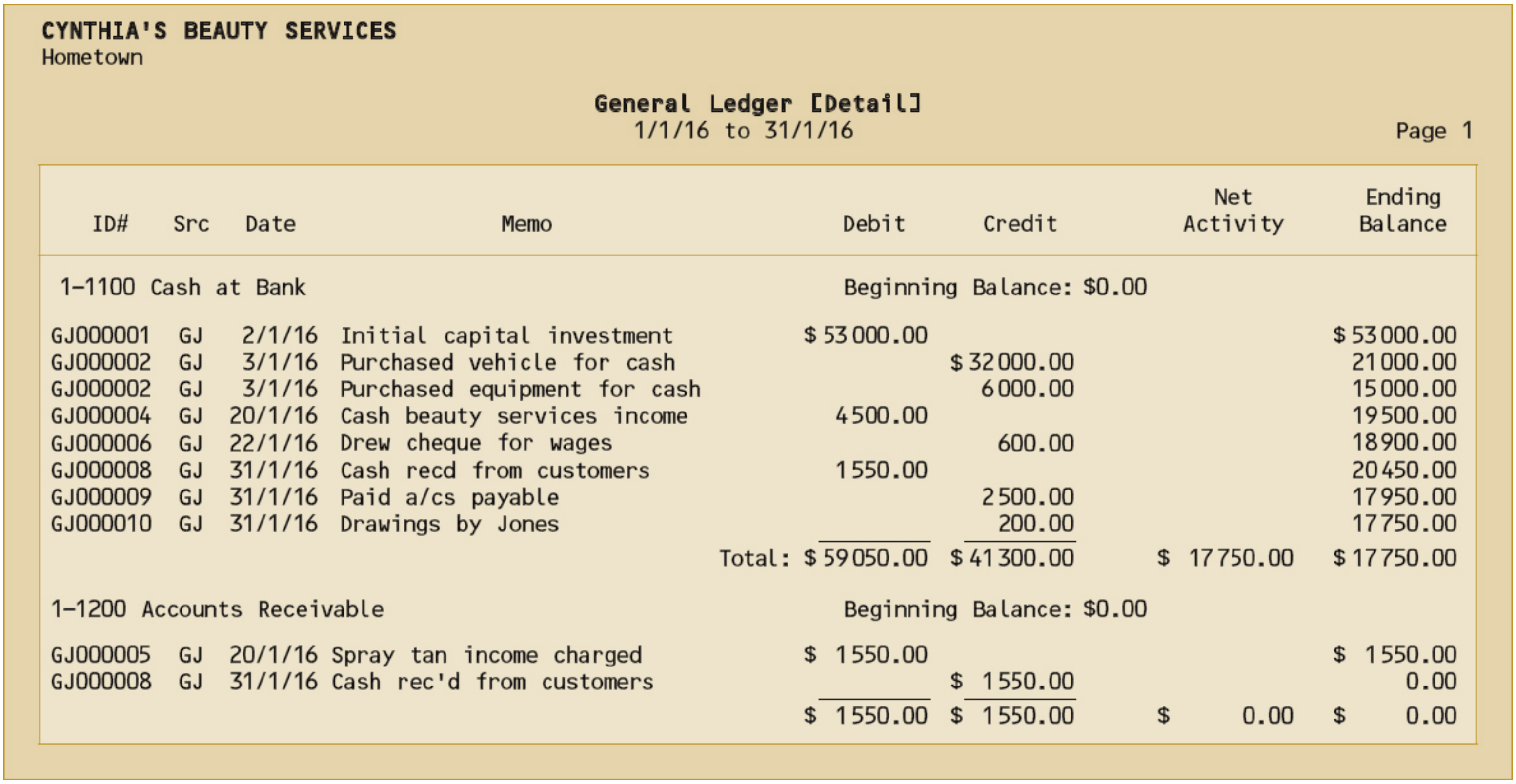
ACCOUNT **Cash at Bank** Account No. **100**

Date		Explanation	Post Ref*	Debit	Credit	Balance
2016						
Jan.	2	Cynthia Jones, Capital	1	53 000		53 000
	3	Vehicle	1		32 000	21 000
	3	Beauty Services Equipment	1		6 000	15 000
	20	Beauty Services Income	1	4 500		19 500
	22	Wages Expense	1		600	18 900
	31	Accounts Receivable	1	1 550		20 450
	31	Accounts Payable	1		2 500	17 950
	31	Cynthia Jones, Drawings	1		200	17 750

*The purpose of the Post Ref column is discussed later in this chapter.

Note that in some computerised accounting systems an account could be a single-column account with the debits shown as positive amounts (with or without the + sign) and credit amounts shown as negative amounts. Alternatively, depending on the nature of the account, the credits may be shown as positive and the debits are shown as negatives. A description of the different types of accounts and the rules for debiting and crediting accounts are covered later in this chapter. An example of ledger accounts maintained in a computerised accounting system (MYOB in this case) is shown in figure 3.4.

Figure 3.4 Sample computerised accounts (MYOB)



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CYNTHIA'S BEAUTY SERVICES
Hometown

                              General Ledger [Detail]
                                1/1/16 to 31/1/16                                  Page 1

                                                                         Net         Ending
  ID#      Src  Date              Memo               Debit      Credit   Activity    Balance

 1-1100 Cash at Bank                            Beginning Balance: $0.00

GJ000001  GJ   2/1/16  Initial capital investment  $53 000.00                        $53 000.00
GJ000002  GJ   3/1/16  Purchased vehicle for cash            $32 000.00               21 000.00
GJ000002  GJ   3/1/16  Purchased equipment for cash            6 000.00               15 000.00
GJ000004  GJ  20/1/16  Cash beauty services income  4 500.00                          19 500.00
GJ000006  GJ  22/1/16  Drew cheque for wages                     600.00               18 900.00
GJ000008  GJ  31/1/16  Cash recd from customers     1 550.00                          20 450.00
GJ000009  GJ  31/1/16  Paid a/cs payable                       2 500.00               17 950.00
GJ000010  GJ  31/1/16  Drawings by Jones                         200.00               17 750.00
                                     Total: $59 050.00 $41 300.00  $ 17 750.00  $17 750.00

1-1200 Accounts Receivable                      Beginning Balance: $0.00

GJ000005  GJ  20/1/16 Spray tan income charged  $ 1 550.00                         $ 1 550.00
GJ000008  GJ  31/1/16 Cash rec'd from customers            $ 1 550.00                    0.00
                                                $ 1 550.00 $ 1 550.00  $     0.00  $     0.00
```

Besides debit and credit entries and running balances, all debits and credits over a period are totalled and net activity is shown. This provides an additional check on the mathematical accuracy of the accounts. Note that at this stage the source of the entries is GJ for general journal (see p. 88) and an explanation for each entry is also shown in the 'Memo' column.

Accounts commonly used

The accountant establishes an account for each type of asset, liability, equity, income and expense to be reported in the financial statements. The number of accounts and specific account titles vary, depending on the nature and complexity of the entity's operations. For example, the accounts used to record transactions of a management consultancy firm differ significantly from those of a manufacturing business or a not-for-profit organisation. Note also that the same type of account is given different titles by different entities. In addition, the number of accounts can reflect the amount of information desired by the internal and external statement users. For example, although one account can be used for recording all expenses, it would not provide sufficient detail to monitor and control the entity's expenses.

The title or name given to a specific account should be descriptive of the items recorded in the account. Because some account titles consist of terms new to you or with special technical meaning in accounting, it will be helpful to look first at the nature of the accounts normally used by a service organisation before discussing the recording of transactions.

Account titles commonly used for the preparation of the balance sheet and income statement are presented on the following pages.

Accounts: balance sheet

Asset accounts

Cash at bank The Cash at Bank account is used to record deposits into and withdrawals from a bank account. This account is the bank account of the entity. Although an entity could have several accounts at the one bank and/or accounts at several banks, for simplicity in this book a single Cash at Bank account is used.

Accounts receivable Accounts receivable are amounts owed to an entity by customers to whom the entity has provided goods or services on credit. An account receivable may be based on an oral agreement to pay, but is more commonly recognised when an invoice for goods sold or services rendered is issued. The Accounts Receivable account is often called the **Trade Debtors** account or simply **Debtors**.

Other receivables or debtors At the end of the period, the entity may have receivables resulting from a variety of other transactions. For example, cash advances may have been made to employees, deposits may have been made with another entity for goods or services to be received in the future, GST may be receivable from the ATO as a result of input tax credits (see the appendix to this chapter), and a tenant may owe the entity rent. An entity normally establishes an individual account for each type of debtor.

Prepaid expenses Prepaid expenses are goods or services that have been paid for in advance but not yet received or used. At the time of payment, an asset is recorded and subsequently expensed as the asset is used to earn income. Included in this category are advance payments of rent and insurance premiums. Each type of prepaid expense may be recorded in a separate account, e.g. Prepaid Rent, Prepaid Insurance.

Land The Land account is used to record land controlled by the entity. Land is recorded in an account separate from any buildings on the land. (This is required by accounting standards.)

Buildings The Buildings account is used to record buildings controlled by the entity.

Plant and equipment Physical items used in the entity for a relatively long period of time are recorded in plant and equipment accounts. In general, these accounts include any item not permanently attached to land or buildings. The accounts are used to record acquisitions of delivery equipment, office furniture, computer equipment, factory equipment, machinery, motor vehicles, store and office fixtures, and store furniture. A separate account for each major type of equipment owned is usually established, e.g. Office Furniture, Store Furniture.

Land, buildings and equipment accounts are used for those items held for use in the operations of the entity.

Liability accounts

Accounts payable An account payable is an obligation to pay an amount to an outside party — a creditor

— for the purchase of goods, supplies or services on credit. The account is also commonly called **Trade Creditors** or simply **Creditors**.

Unearned income Cash received from customers for goods yet to be delivered or services yet to be performed is not reported as income because the entity has a liability to the customer until the goods are delivered or the services are performed. When the goods are delivered or the services are performed, an amount is transferred from the unearned income account, a liability, to an income account. The income represents the reduction in the liability account. Examples are rent collected in advance from a tenant and a magazine subscription for 2 years received by a publisher. The use of unearned income accounts is discussed further in chapter 4.

Other current liabilities At any given time, the entity may owe money to employees, the ATO, or other parties for services received. For example, many entities are required to collect GST on goods sold or services provided; a company may owe income tax; a telephone account may have been received for the quarter but not yet paid. It is not possible to list here all of the potential liabilities an entity may incur. The important fact at the moment is that an individual account can be used for each type of liability.

GST Payable and Receivable As discussed in detail in the appendix to this chapter, any business which is registered for GST typically has two accounts.

- **GST Payable** for any GST received or receivable by the entity from its customers. This account represents the GST the entity owes to the ATO, and is a liability.
- **GST Receivable** for any GST paid or payable by the entity to its suppliers. This account represents the GST refundable to the entity by the ATO, and is an asset.

At the end of each reporting period, the GST Payable account (liability) is usually offset against the GST Receivable account (asset) to show a net liability or asset in the entity's balance sheet, depending on which account has the larger balance.

In the accounting records, all income and expenses and most assets are recorded in the accounts excluding the GST (i.e. net of GST). Receivables and payables are recorded with the GST component included.

Mortgage payable This account is used to record a particular kind of liability for which the creditor has a claim secured by a mortgage deed against one or more of the entity's assets. A secured claim means that if the entity is unable to pay the obligation when due, the creditor may force the sale of the assets pledged as security to recover the debt.

Equity accounts

Four main types of transactions affect the owner's interest or equity in the entity: (1) investment of assets in the entity by the owner; (2) withdrawal of assets by the owner; (3) income earned; and (4) expenses incurred. Thus the equity part of the accounting equation may be expanded as follows:

$$\begin{aligned}\text{Assets} &= \text{Liabilities} + \text{Equity}\\ \text{Equity} &= \text{Investment by the owner} - \text{Drawings by the owner} + \text{Income} - \text{Expenses}\end{aligned}$$

Separate accounts are maintained for each of these four categories as a convenient means of preparing the statement of changes in equity for the period.

Capital Assets invested in the entity by the owner are recorded as an increase in assets and an increase in the capital account established in the name of the owner.

Drawings or withdrawals The drawings account is used to record the withdrawal of assets, usually cash, from the entity by the owner. Thus, drawings are recorded as a reduction in both assets and equity. An owner of a sole trader business will often establish a fixed amount to be withdrawn at specific intervals for personal living expenses. Although the owner may think of these drawings as a salary, neither law nor tax codes recognise a single proprietor as an employee of the firm because the owner cannot hire themself. Consequently, recurring drawings made in the expectation of earning profit are not considered a salary or an expense of the entity.

Occasionally, personal expenses of the owner may be paid directly from the bank account of the entity. Such payments are drawings by the owner and not expenses of doing business. Equity accounts differ depending on the nature of the business organisation, e.g. sole trader or the company structure. Different equity accounts will be introduced throughout the book as appropriate.

Accounts: income statement

Income and expense accounts are subclassifications of equity. Because of the variety and volume of income and expense transactions, it is helpful in preparing the income statement to maintain separate accounts for each major type of income and expense item so that users of accounting information will know the amount and source of income and the expenses incurred. Relatively insignificant amounts are normally recorded in a Sundry Income or a Sundry Expenses account.

Income

Income represents increases in economic benefits during the period in the form of inflows or enhancements of assets or decreases in liabilities that result in increases in equity, other than contributions by the owners. In the ***Conceptual Framework for Financial Reporting*** two different types of income are identified, namely revenues and gains.

Revenues **Revenue** represents income which arises in the course of the ***ordinary activities*** of an entity. Such revenues commonly occur in the performance of services by service organisations or in the sale of merchandise by retail and wholesale entities. Revenues are measured by the fair value of the assets received. The assets received for the goods or services are normally cash or a receivable. In the double-entry accounting system, revenues are recorded as both an increase in an asset (a debit) and an increase in equity (a credit). Each different revenue is reported in a separate equity account in order to show its particular source. Revenues are classified into many categories depending on their nature, e.g. commission revenue, cleaning services revenue, legal services revenue, gardening services revenue, consulting fees revenue, sales revenue.

Gains A **gain** represents income which does ***not*** usually arise from the ordinary activities of an entity. An example is the gain from the sale of assets such as buildings or machinery which are used by the entity in carrying out its main activities. Gains may also arise if the entity has revalued upwards some of its assets, e.g. if an entity has revalued its share investments up to market value. In order to provide information to users of financial statements for making decisions, it is important to show gains as a separate category of income when preparing an income statement. However, the nature of gains and of revenue is essentially the same, and they are merely different categories of income.

Expenses

The cost of services and economic benefits consumed or lost or liabilities incurred during the period, other than a withdrawal of capital or profits by the owner, are called **expenses**. Expenses are recorded by decreasing an asset account (a credit) and increasing the appropriate expense account (a debit). If an expense has not been paid for, a liability is increased (a credit) rather than an asset being decreased. A number of expense accounts are normally reported in order to reflect the variety of expenses incurred by an entity, e.g. wages expense, fuel expense, telephone expense.

When total income (revenues and gains) exceeds total expenses, the difference is called **profit**. When total expenses exceed total income, the entity is said to incur a **loss**. An important function of accounting is to provide a measurement of a business entity's performance as revealed by the profit made or the loss incurred.

General ledger

As previously defined, the collection of all the individual accounts for a particular business is referred to as a ***general ledger***. A computerised general ledger is generally referred to as the ***general ledger master file***.

Accounts contained in the general ledger are usually organised in the order they appear in the balance sheet and the income statement, thus making it easier to find them and prepare financial statements. Each account has an identification number used for reference and for cross-referencing the transactions entered in a specific account.

Chart of accounts

A **chart of accounts** is a listing of the complete ledger account titles and their related numbers, and is maintained in both manual and computerised systems.

When analysing transactions, refer to the chart of accounts to identify specific accounts to be increased or decreased. A simple numbering system numbers all accounts consecutively starting with number 1 and continuing until all accounts are assigned a number. A better system, however, is one based on flexible numbering, which allows the addition of accounts as necessary. For example, all assets are assigned a three-digit number from 100 to 199, liabilities are 200 to 299, equity 300 to 399, income 400 to 499, and expenses 500 to 599. Some numbers are not assigned within each classification of accounts to permit the insertion of new accounts as they are needed. In computerised systems, the chart of accounts can use more complex numbering systems to facilitate processing by the computer. In these systems, a chart of accounts is essential. It is the first element of the system to be processed as it forms the basic framework under which the whole of the computerised accounting system functions.

A relatively simple chart of accounts used in this and later chapters to illustrate accounting procedures for Intellect Management Services is shown in figure 3.5.

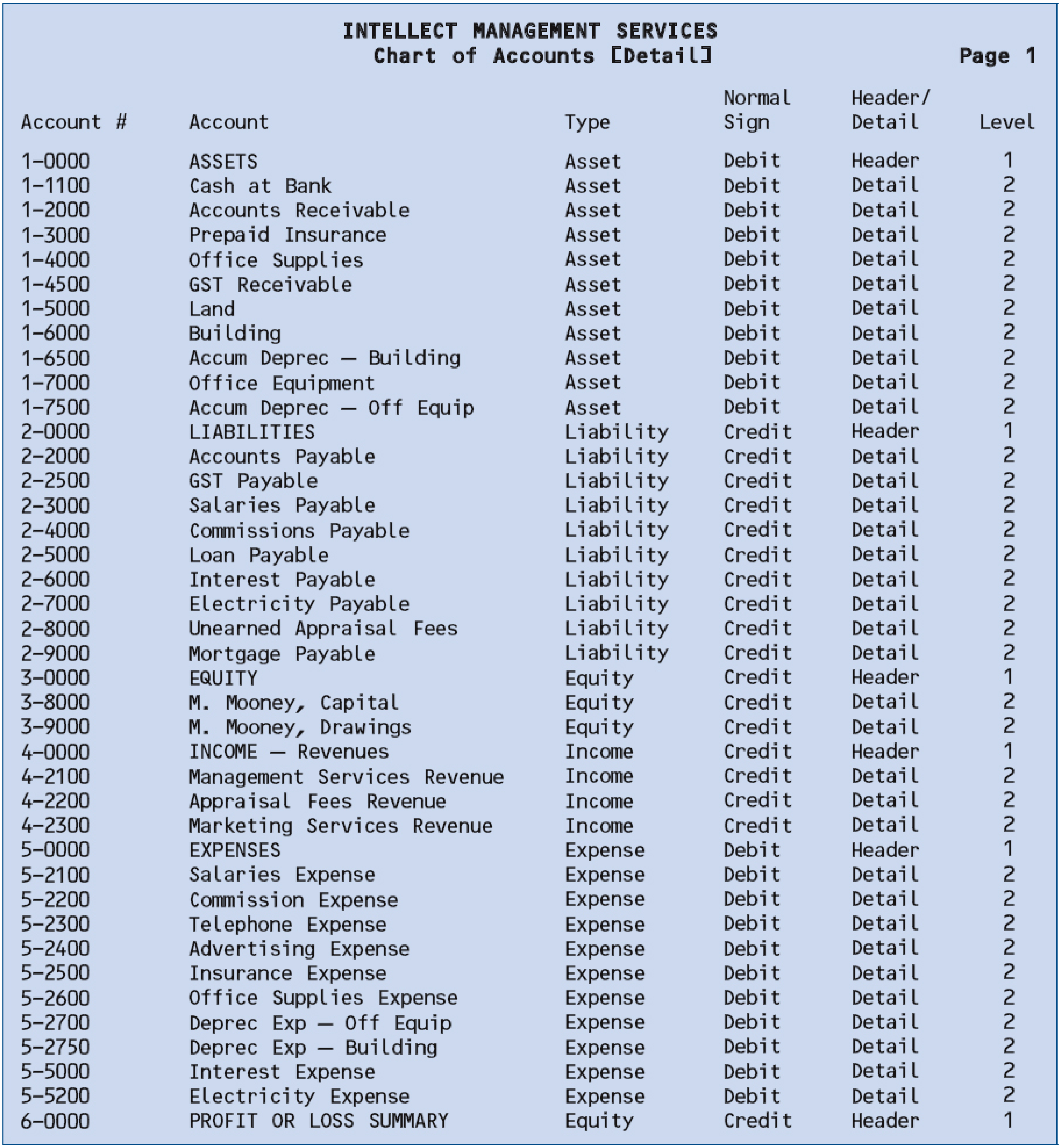
The same chart of accounts produced by the MYOB computerised accounting system is shown in figure 3.6 (p. 84). Note the amount of extra detail which the program uses to record transactions and produce reports. Note also the use of levels of accounts (shown in the right-hand column in figure 3.6) which enables the computer to condense the amount of detail, e.g. level 2 accounts in a category can be totalled into a level 1 account. All level 1 accounts are headers in accounting reports.

Figure 3.5 A simple chart of accounts

INTELLECT MANAGEMENT SERVICES
Chart of Accounts

Assets (100–199)	
Cash at Bank	100
Accounts Receivable	104
Prepaid Insurance	110
Office Supplies	111
GST Receivable	120
Land	150
Building	160
Accumulated Depreciation – Building	161
Office Equipment	170
Accumulated Depreciation – Office Equipment	171
Liabilities (200–299)	
Accounts Payable	200
Salaries Payable	210
Loan Payable	214
Interest Payable	215
Electricity Account Payable	216
Unearned Appraisal Fees	220
GST Payable	250
Mortgage Payable	260
Equity (300–399)	
M. Mooney, Capital	300
M. Mooney, Drawings	310
Income (400–499)	
Revenues	
Management Services Revenue	400
Appraisal Fees Revenue	401
Marketing Services Revenue	402
Expenses (500–599)	
Salaries Expense	500
Telephone Expense	510
Advertising Expense	520
Insurance Expense	521
Office Supplies Expense	530
Depreciation Expense – Office Equipment	540
Depreciation Expense – Building	541
Interest Expense	560
Electricity Expense	570
Profit or Loss Summary	600

Figure 3.6 Chart of accounts used in MYOB computerised accounting intellect management services



INTELLECT MANAGEMENT SERVICES
Chart of Accounts [Detail] **Page 1**

Account #	Account	Type	Normal Sign	Header/ Detail	Level
1-0000	ASSETS	Asset	Debit	Header	1
1-1100	Cash at Bank	Asset	Debit	Detail	2
1-2000	Accounts Receivable	Asset	Debit	Detail	2
1-3000	Prepaid Insurance	Asset	Debit	Detail	2
1-4000	Office Supplies	Asset	Debit	Detail	2
1-4500	GST Receivable	Asset	Debit	Detail	2
1-5000	Land	Asset	Debit	Detail	2
1-6000	Building	Asset	Debit	Detail	2
1-6500	Accum Deprec — Building	Asset	Debit	Detail	2
1-7000	Office Equipment	Asset	Debit	Detail	2
1-7500	Accum Deprec — Off Equip	Asset	Debit	Detail	2
2-0000	LIABILITIES	Liability	Credit	Header	1
2-2000	Accounts Payable	Liability	Credit	Detail	2
2-2500	GST Payable	Liability	Credit	Detail	2
2-3000	Salaries Payable	Liability	Credit	Detail	2
2-4000	Commissions Payable	Liability	Credit	Detail	2
2-5000	Loan Payable	Liability	Credit	Detail	2
2-6000	Interest Payable	Liability	Credit	Detail	2
2-7000	Electricity Payable	Liability	Credit	Detail	2
2-8000	Unearned Appraisal Fees	Liability	Credit	Detail	2
2-9000	Mortgage Payable	Liability	Credit	Detail	2
3-0000	EQUITY	Equity	Credit	Header	1
3-8000	M. Mooney, Capital	Equity	Credit	Detail	2
3-9000	M. Mooney, Drawings	Equity	Credit	Detail	2
4-0000	INCOME — Revenues	Income	Credit	Header	1
4-2100	Management Services Revenue	Income	Credit	Detail	2
4-2200	Appraisal Fees Revenue	Income	Credit	Detail	2
4-2300	Marketing Services Revenue	Income	Credit	Detail	2
5-0000	EXPENSES	Expense	Debit	Header	1
5-2100	Salaries Expense	Expense	Debit	Detail	2
5-2200	Commission Expense	Expense	Debit	Detail	2
5-2300	Telephone Expense	Expense	Debit	Detail	2
5-2400	Advertising Expense	Expense	Debit	Detail	2
5-2500	Insurance Expense	Expense	Debit	Detail	2
5-2600	Office Supplies Expense	Expense	Debit	Detail	2
5-2700	Deprec Exp — Off Equip	Expense	Debit	Detail	2
5-2750	Deprec Exp — Building	Expense	Debit	Detail	2
5-5000	Interest Expense	Expense	Debit	Detail	2
5-5200	Electricity Expense	Expense	Debit	Detail	2
6-0000	PROFIT OR LOSS SUMMARY	Equity	Credit	Header	1

A good chart of accounts reveals a great deal about the organisation. For example, it will tell you (a) whether the organisation is a sole trader business, a partnership, a company, a not-for-profit organisation or a government department, (b) whether the organisation is engaged in retailing, manufacturing or services, and (c) the different types of income derived and expenses incurred by the entity.

The chart of accounts is usually contained in the entity's **accounting manual**, which also typically contains such things as an overview of the accounting system, policies and procedures to be followed, sample source documents and sample financial statements. The manual is used as a guide for those involved in the operation of the accounting system.

LEARNING CHECK

☐ In order for an entity to report on its progress over time, its life is divided into arbitrary time periods of equal length called ***accounting periods***, so that statement users can compare performance in the current period with that of the previous period.

☐ During each period, steps and procedures are followed to properly record all transactions, culminating in the preparation of financial statements. These steps and procedures are known as the ***accounting cycle***.

☐ An entity has an account for each kind of asset, liability, equity, income and expense item.

☐ A ledger account provides a record of increases and decreases for each of these items.

☐ Ledger accounts can be of two types: T accounts and running balance accounts.

☐ Asset, liability and equity accounts are reported in the balance sheet; income and expense accounts are reported in the income statement.

☐ Two different types of income are identified:
- – revenue, which is income arising in the course of ordinary activities, e.g. sales revenue
- – gains, which is income which does not arise from the ordinary activities of an entity, e.g. gain on sale of an asset such as a building.

☐ Accounts in the general ledger are organised usually in the order they appear in the balance sheet and income statement.

☐ A chart of accounts is a listing of the complete ledger account titles and their related numbers.

☐ An entity's chart of accounts can indicate the types of activities conducted by that entity.

3.3 Double-entry accounting

LO 3 **Outline the rules of debit and credit used in double-entry accounting and how to apply these rules in analysing transactions.**

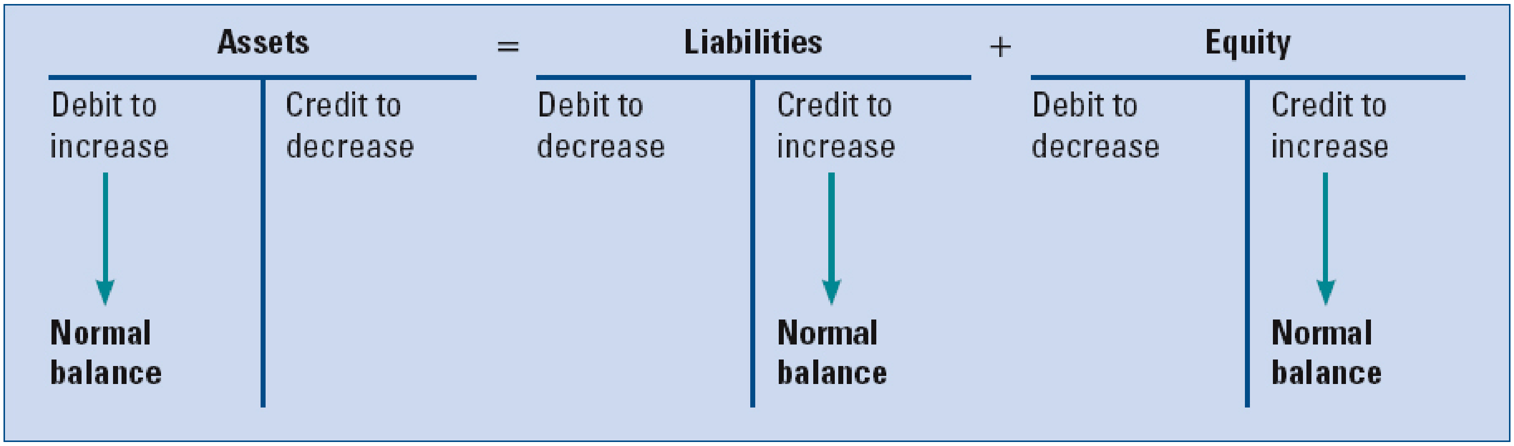
In chapter 2, when recording the transactions for Cynthia's Beauty Services, it was necessary to determine which assets, liabilities or equity items were affected and the amount by which each item increased or decreased. We noted that each transaction affected at least two financial statement items, and that the accounting equation always remained in balance. When accounts are used in the recording process, each transaction must also be analysed to determine what types of accounts are affected, and whether each account is increased or decreased so as to decide whether it is to be debited or credited. At least two accounts are affected by each transaction, hence the system is referred to as double-entry accounting.

Debit and credit rules

Accounts: balance sheet

As noted earlier, the ***left-hand side*** of a T account is called the ***debit side*** and the ***right-hand side*** is called the ***credit side***. When accounts are maintained in the running balance format shown on page 78, 'debit' simply means the left-hand column and 'credit' means the right-hand column. Whether a debit or a credit is an increase or a decrease to the account balance depends on whether the account is an asset, a liability or an equity account.

In arriving at rules for debit and credit, an assumption is made that assets are of a debit nature. (This is just an accounting rule and is similar to the international road rules that a green light means go and a red light means stop.) From the accounting equation, it follows, then, that liabilities and equity are of a credit nature, and ***total debits must equal total credits***. Increases and decreases are recorded in the three categories of accounts reported on the balance sheet as shown in T-account format below:



An increase in an asset account is recorded as a debit, i.e. it is recorded on the left-hand side of the general ledger account. An increase in a liability or equity account is recorded as a credit, i.e. it is recorded on the right-hand side of the general ledger account. A decrease in an asset account is recorded as a credit; a decrease in a liability or an equity account is recorded as a debit.

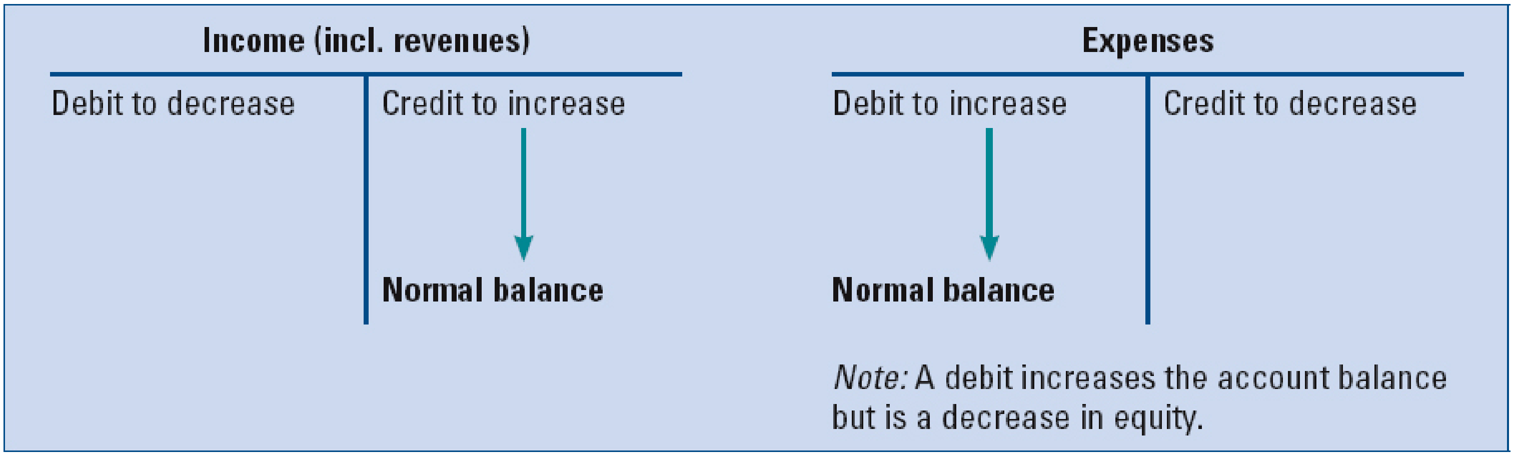
The procedure of recording increases to liability and equity accounts on the credit side and decreases on the debit side is opposite that of assets and permits an additional check for accuracy.

Thus, not only must the accounting equation be in balance, but the sum of the debit balances must equal the sum of the credit balances.

Accounts: income statement

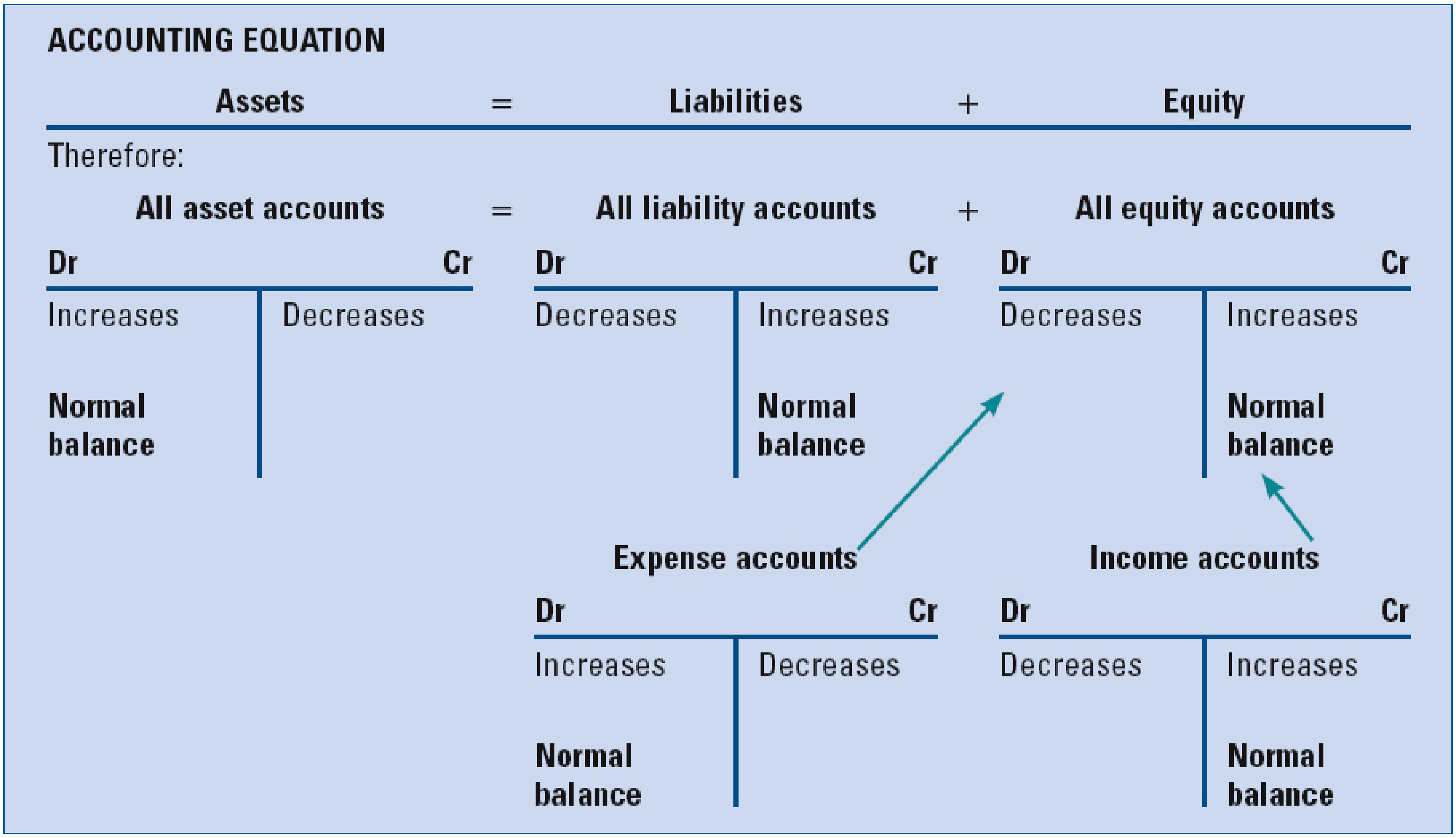
The debit/credit rules for income and expenses can be developed by examining the relationship of income and expense accounts to the equity account. As explained earlier, income increases equity and expenses decrease equity. Thus, increases in income are recorded as credits consistent with the recording of increases in equity. Increases in expenses are recorded as debits, because they decrease equity. Although a debit to an expense account is a reduction in equity, it is also an increase in an expense account.

Debit and credit rules for income statement accounts are shown below in T-account format:



Knowing the rules of debit and credit is fundamental to understanding much of the material in the rest of this book. Because of the importance of knowing these rules, you should master them now. Remember that to debit (credit) an account simply means to enter the amount on the left-hand (right-hand) side of the account. A debit may increase or decrease the account balance, depending on the type of account being adjusted. The same is true for a credit. A summary of debit and credit rules is provided in figure 3.7.

Figure 3.7 Summary of debit/credit rules and the accounting equation



Normal account balances

It is helpful in finding ledger errors to know the normal balance for an account. In particular, if the running balance account format illustrated in figure 3.3 (p. 78) is used, the balance column does not indicate whether the amount is a debit or credit. As shown in figure 3.7, the **normal account balance** is the side on which increases to the account are recorded. The chart below summarises the normal balances for all accounts:

Account	Increases recorded on	Normal balance
Assets	Debit side	Debit
Liabilities	Credit side	Credit
Equity		
Investment in the entity by owner	Credit side	Credit
Drawings from the entity by owner	Debit side	Debit
Income: Revenues	Credit side	Credit
Expenses	Debit side	Debit

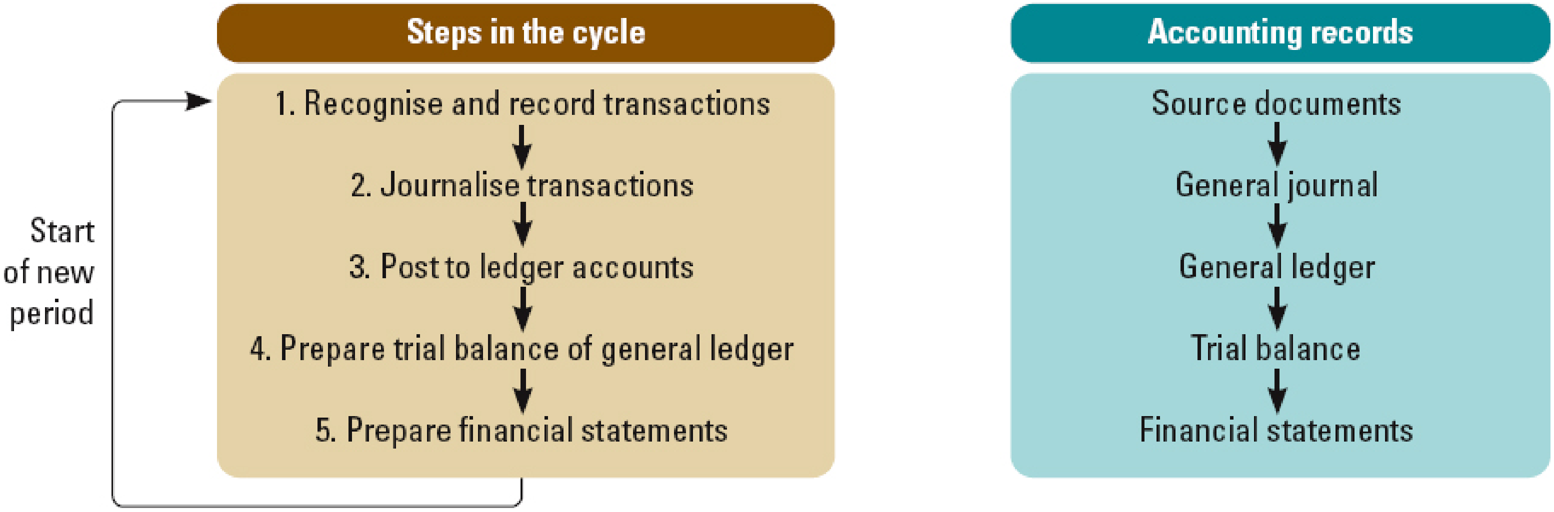
If an account has a balance different from its normal balance, it is likely that an error has been made. We would not expect to find a credit balance in an asset account or a debit balance in an income account. However, a credit balance in the Cash at Bank account could exist for a limited time if the bank account had been overdrawn, i.e. arrangements have been made with the bank to make use of overdraft facilities. Note that in computerised accounting, the system is usually designed to flag or highlight automatically any account which does not have a normal balance. Contrast this with a manual system where accounts with abnormal balances need to be discovered by visual inspection.

It is easy to be confused by the asset Cash at Bank being increased with a debit and decreased with a credit as this appears to be the opposite to bank statements for personal accounts. Remember that the bank statement is not a statement of the owner's asset Cash at Bank, but rather a statement of the bank's liability to the customer and so it follows the rules for a liability.

Expanded accounting cycle

Earlier, the accounting cycle was introduced and a very basic cycle was illustrated (figure 3.2, p. 77). We now introduce the general journal and the general ledger, so we need to expand the cycle to include the procedures of journalising transactions, posting the general journal to the general ledger, and preparing a trial balance. The cycle, taking these new steps into account, is shown in figure 3.8. (The accounting cycle will be expanded further in later chapters.)

Figure 3.8 The expanded accounting cycle



LEARNING CHECK

- ☐ The debit and credit rules assume that assets are of a debit nature so, to maintain the accounting equation, it follows that liabilities and equity are of a credit nature.
- ☐ An increase (decrease) in an asset account is recorded as a debit (credit); an increase (decrease) in a liability or equity account is recorded as a credit (debit).
- ☐ An increase (decrease) in an income account is recorded as a credit (debit); an increase (decrease) in an expense account is recorded as a debit (credit).

3.4 General journal

LO 4 Explain the purpose and format of the general journal, record transactions in the general journal and transfer the information to the general ledger.

In a typical manual accounting system and in some computerised general ledger accounting systems, a transaction is analysed and recorded first in a book called a **journal** before the effects of the transaction are entered in the individual accounts in the ledger. The journal is the initial recording of a transaction from the entity's source documents. Although transactions could be entered directly into the accounts in the ledger, better control is achieved by recording them first in a journal; then, when convenient, the debit and credit amounts can be recorded in the proper ledger accounts.

The journal provides in one place a complete record of all transactions as they occur in chronological order, i.e. by date. In the journal, the title and dollar amounts of each account to be debited or credited are listed for each transaction. Thus, the journal provides a detailed record of the full effect of a particular transaction on the entity. Since an individual transaction is recorded in two or more accounts in the ledger, no single account contains a complete record of each transaction.

As well as providing a complete record of every transaction, the journal is useful for reducing and locating errors. If a transaction is recorded directly to ledger accounts, the effect of the transaction may inadvertently be recorded initially as two debits or two credits, or one side of a transaction may be omitted entirely, and such errors would be difficult to locate. However, in the journal the debit and credit information for each transaction is shown in one place. The omission of a debit or a credit or the inclusion of two debits without an offsetting credit, for instance, would be obvious. With a complete record of each transaction in the journal, some errors can be found by retracing the debits and credits to ledger accounts to ensure that the correct amounts were transferred to the proper accounts.

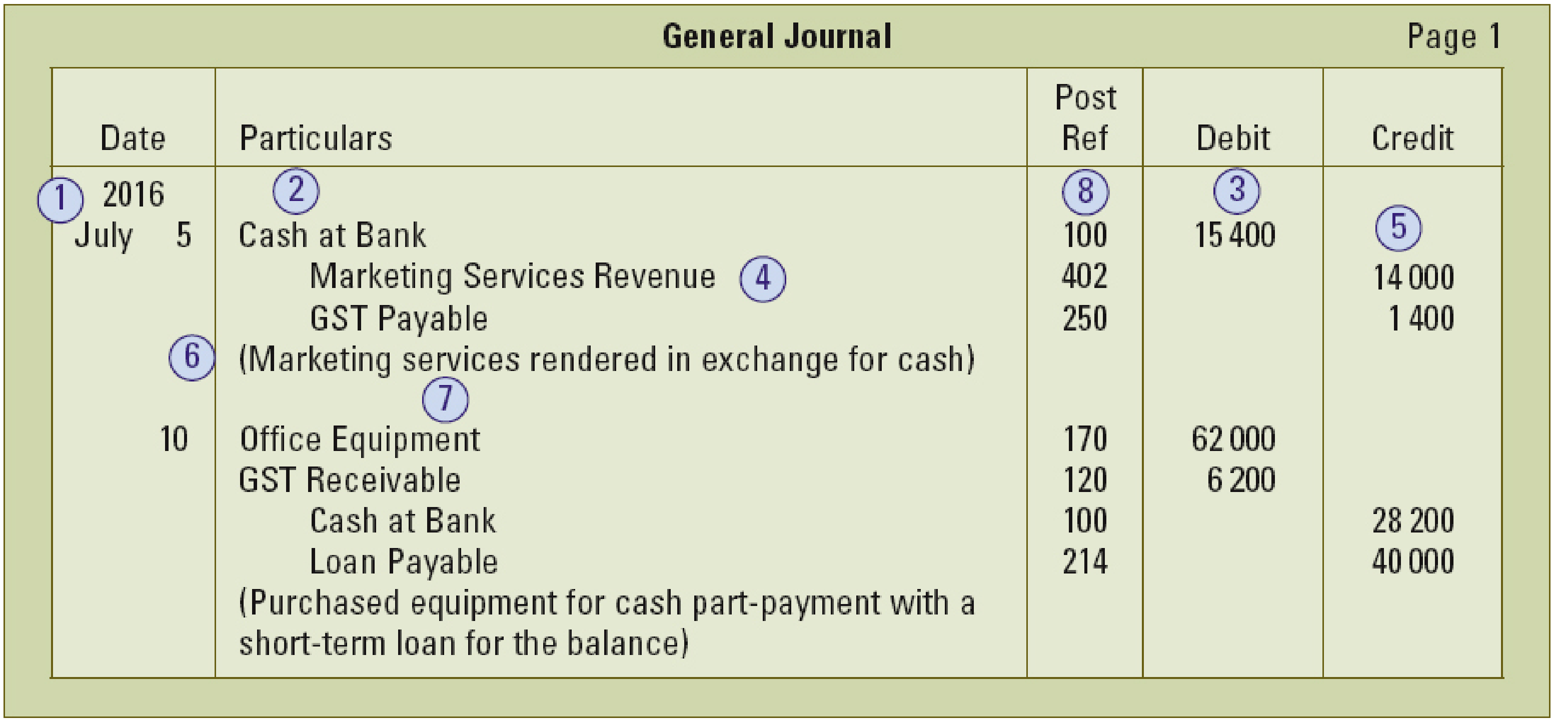
In computerised accounting systems, transactions are generally entered directly into the ledger accounts from various data input screens, and the system ensures that each transaction has an equal debit and credit recorded. Most computerised accounting systems do provide an option to print out a journal if required.

Recording transactions in a journal

The number of journals and the design of each vary from entity to entity, depending on the nature of operations and the frequency of a particular type of transaction. In this chapter, we are concerned with using the **general journal**, or the **two-column journal**, so called because it contains two columns for entering dollar amounts. Other types of journals are discussed in chapter 7.

The standard format for the general journal and the steps followed in recording a journal entry are shown in figure 3.9. Recording transactions in a journal is called **entering** or **journalising**, and each transaction recorded is a separate **journal entry**. Two transactions are illustrated in figure 3.9. The first journal entry records the receipt of cash for marketing services performed for a customer, plus GST collected. The second entry records the purchase of equipment with a part payment in cash and a loan payable for the balance. Many journal entries involve only two accounts; however, the entries illustrated in figure 3.9 involve three or more accounts. A journal entry involving more than two accounts is called a **compound journal entry**.

Figure 3.9 Example of a general journal (ringed numbers refer to the steps listed on the next page)



General Journal Page 1

Date	Particulars	Post Ref	Debit	Credit
① 2016	②	⑧	③	
July 5	Cash at Bank	100	15 400	⑤
	Marketing Services Revenue ④	402		14 000
	GST Payable	250		1 400
⑥	(Marketing services rendered in exchange for cash)			
	⑦			
10	Office Equipment	170	62 000	
	GST Receivable	120	6 200	
	Cash at Bank	100		28 200
	Loan Payable	214		40 000
	(Purchased equipment for cash part-payment with a short-term loan for the balance)			

Before a transaction is entered in the journal, it is necessary to analyse the transaction for its effects on the various ledger accounts. Note that the principles of double-entry accounting are observed for each transaction:

- two or more accounts are affected by each transaction
- the sum of the debit amount(s) for every transaction equals the sum of the credit amount(s)

the equality of the accounting equation is maintained.

Every page in the journal is numbered for future reference. Before an entry is made in the journal, the year and month are written at the top of the first column. The year and month are not repeated until the start of a new page or a new month. The process for journalising transactions is described below, and the steps in the process are keyed to the first entry in figure 3.9.

1. The date of each transaction is entered in the date column.
2. The name of the account(s) to be debited is entered against the left margin of the particulars column.
3. The amount to be debited to each account is entered in the debit amount column on the same line as the account name.
4. The name of the account(s) to be credited is entered on the line immediately below the account(s) to be debited and is indented to distinguish the account(s) credited from the account(s) debited.
5. The amount to be credited to each account is entered in the credit amount column on the same line as the account name.
6. A brief explanation of the transaction is entered on the line immediately below the journal entry. This explanation is referred to as a ***narration***.
7. A single line is usually left blank between each journal entry or a line is drawn between each entry across the particulars column.
8. At the time the journal entry is recorded, the posting reference column is left blank until the account is posted to the ledger (see below). If an appropriate account title is not listed in the chart of accounts, the new account with a new appropriate number should be added to the chart of accounts.

Posting from journal to ledger

The process of transferring amounts entered in the journal to the proper ledger accounts is called **posting**. The aim is to classify the effects of all transactions on each individual asset, liability, equity, income and expense account.

The posting of one journal entry from figure 3.9 with one debit and two credits is shown in figure 3.10 (p. 90). The debit is posted in the first half of the figure and the credits are posted in the second half.

The steps involved in the posting process are as follows.

1. Locate in the ledger the account to be debited.
2. Enter the date the transaction occurred as shown in the journal.
3. Enter in the explanation column the name of the other ledger account(s) to which the opposite side of the entry will be posted (i.e. cross-reference the debit and credit entries).
4. Enter the debit amount in the debit column of the ledger account.
5. Enter in the posting reference column of the ledger account the page number of the journal from which the entry is being posted.
6. Enter in the posting reference column of the journal the account number to indicate that the debit amount was posted.
7. If using running balance ledger accounts, insert the current balance in the account.
8–14. Repeat steps 1 to 7 for both credit parts of the entry.

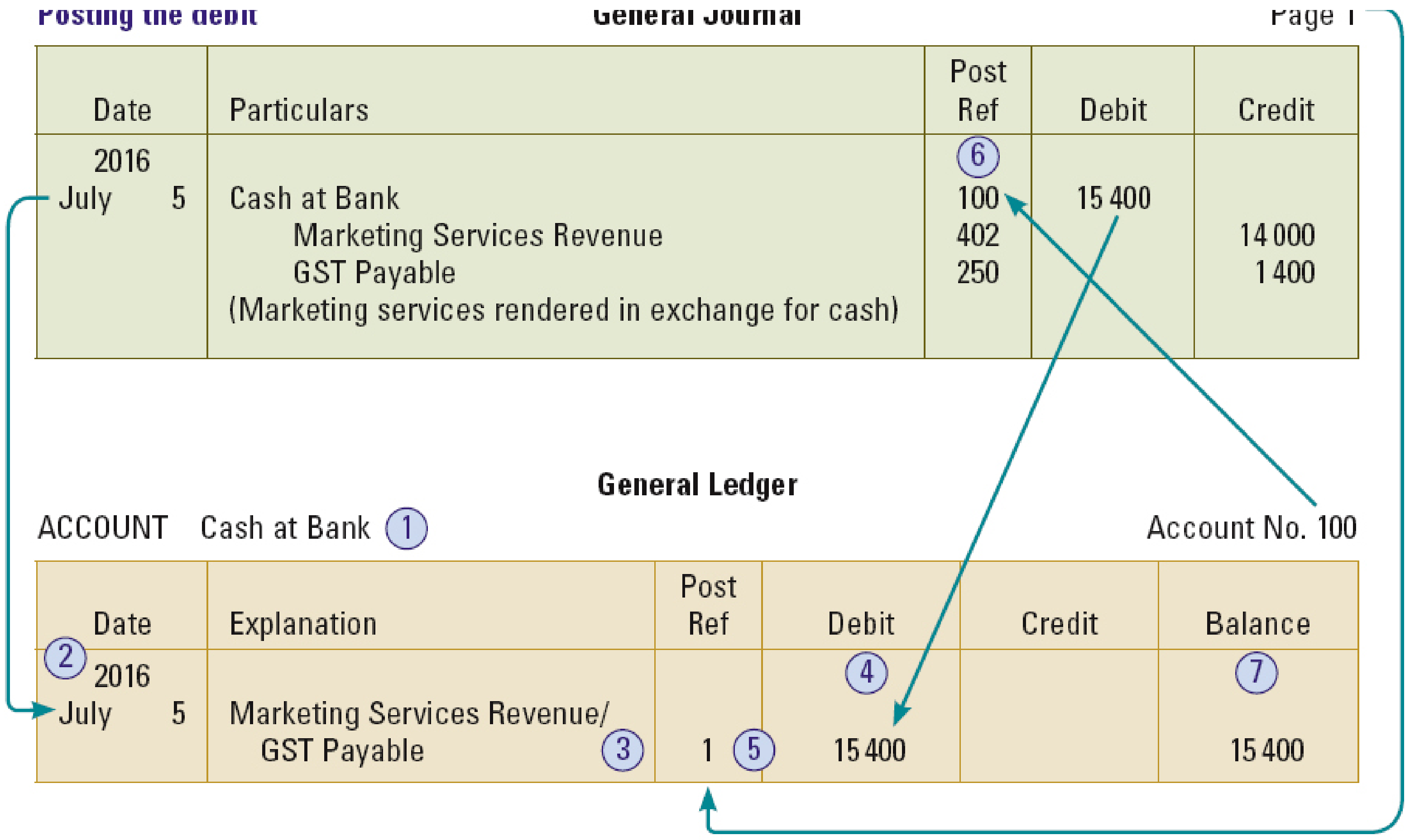
Steps 5, 6, 12 and 13 (entries in the posting reference column) provide a cross-reference between the accounts in the ledger and the original journal entry. Cross-referencing is a convenient way to locate additional information relating to an amount recorded in an individual account in the ledger.

Note that steps 3 and 10 provide a cross-reference between two (or more) ledger accounts to which the entry is posted. From chapter 4 onwards, ledger cross-referencing is not always shown. A simplified T account is used instead. However, in practice, cross-referencing is always completed.

In computerised accounting systems, the posting process is carried out automatically by the computer. It is therefore essential that the data entered initially into the system are accurate.

The computer provides a journal proof summary which totals the debits and credits of all data entered before posting takes place. This ensures that the general ledger remains in balance, i.e. debits equal credits. Most computerised systems automatically maintain the double-entry system of debits and credits. Running balance formats are used for ledger accounts in computerised systems.

Figure 3.10 Posting from the general journal to the general ledger (running balance format)



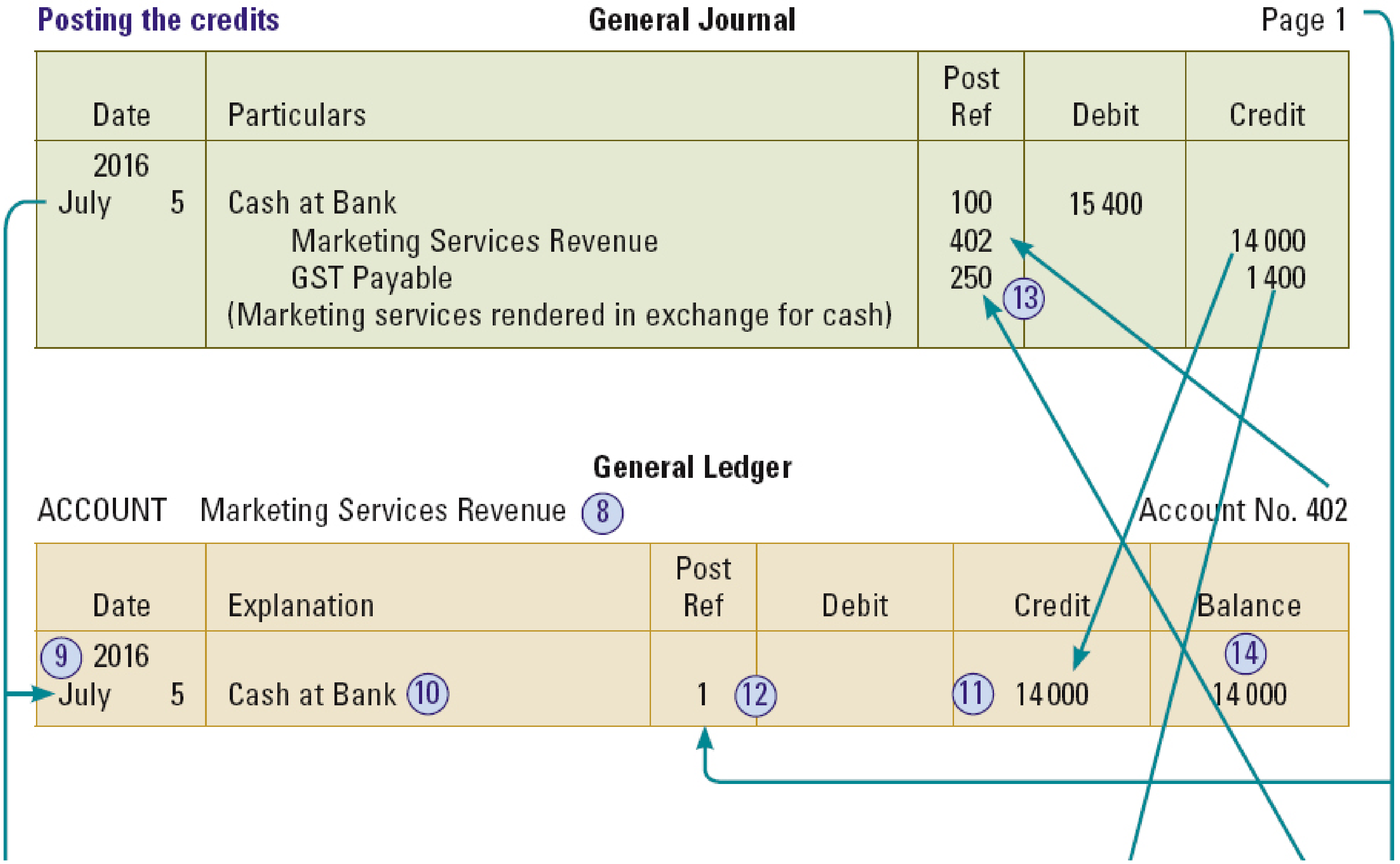
Posting the debit **General Journal** Page 1

Date	Particulars	Post Ref	Debit	Credit
2016		⑥		
July 5	Cash at Bank	100	15 400	
	Marketing Services Revenue	402		14 000
	GST Payable	250		1 400
	(Marketing services rendered in exchange for cash)			

General Ledger

ACCOUNT Cash at Bank ① Account No. 100

Date	Explanation	Post Ref	Debit	Credit	Balance
② 2016			④		⑦
July 5	Marketing Services Revenue/ GST Payable ③	1 ⑤	15 400		15 400



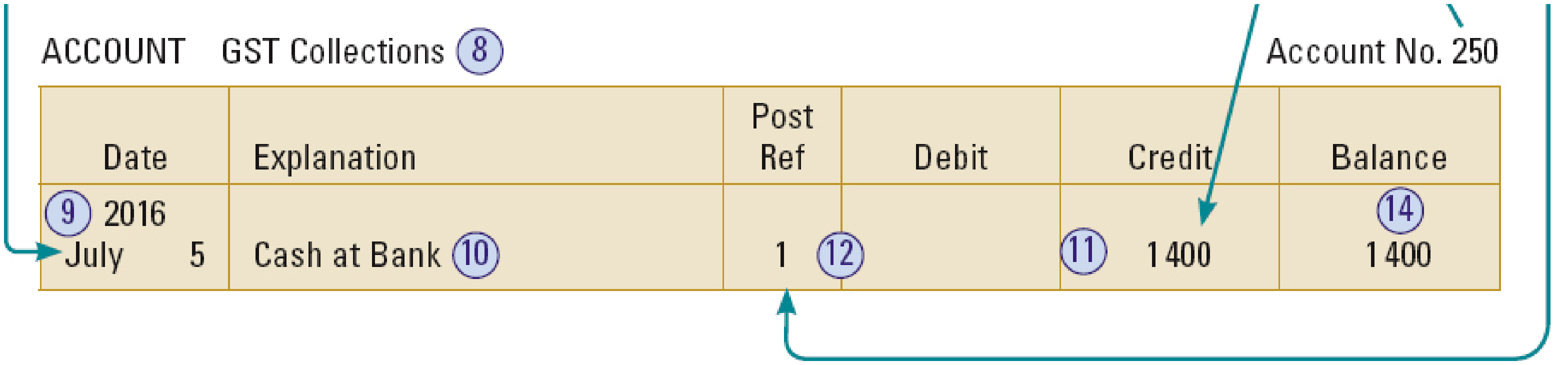
Posting the credits **General Journal** Page 1

Date	Particulars	Post Ref	Debit	Credit
2016				
July 5	Cash at Bank	100	15 400	
	Marketing Services Revenue	402		14 000
	GST Payable	250 ⑬		1 400
	(Marketing services rendered in exchange for cash)			

General Ledger

ACCOUNT Marketing Services Revenue ⑧ Account No. 402

Date	Explanation	Post Ref	Debit	Credit	Balance
⑨ 2016					⑭
July 5	Cash at Bank ⑩	1 ⑫		⑪ 14 000	14 000



ACCOUNT GST Collections ⑧ Account No. 250

Date	Explanation	Post Ref	Debit	Credit	Balance
⑨ 2016 July 5	Cash at Bank ⑩	1 ⑫		⑪ 1 400	⑭ 1 400

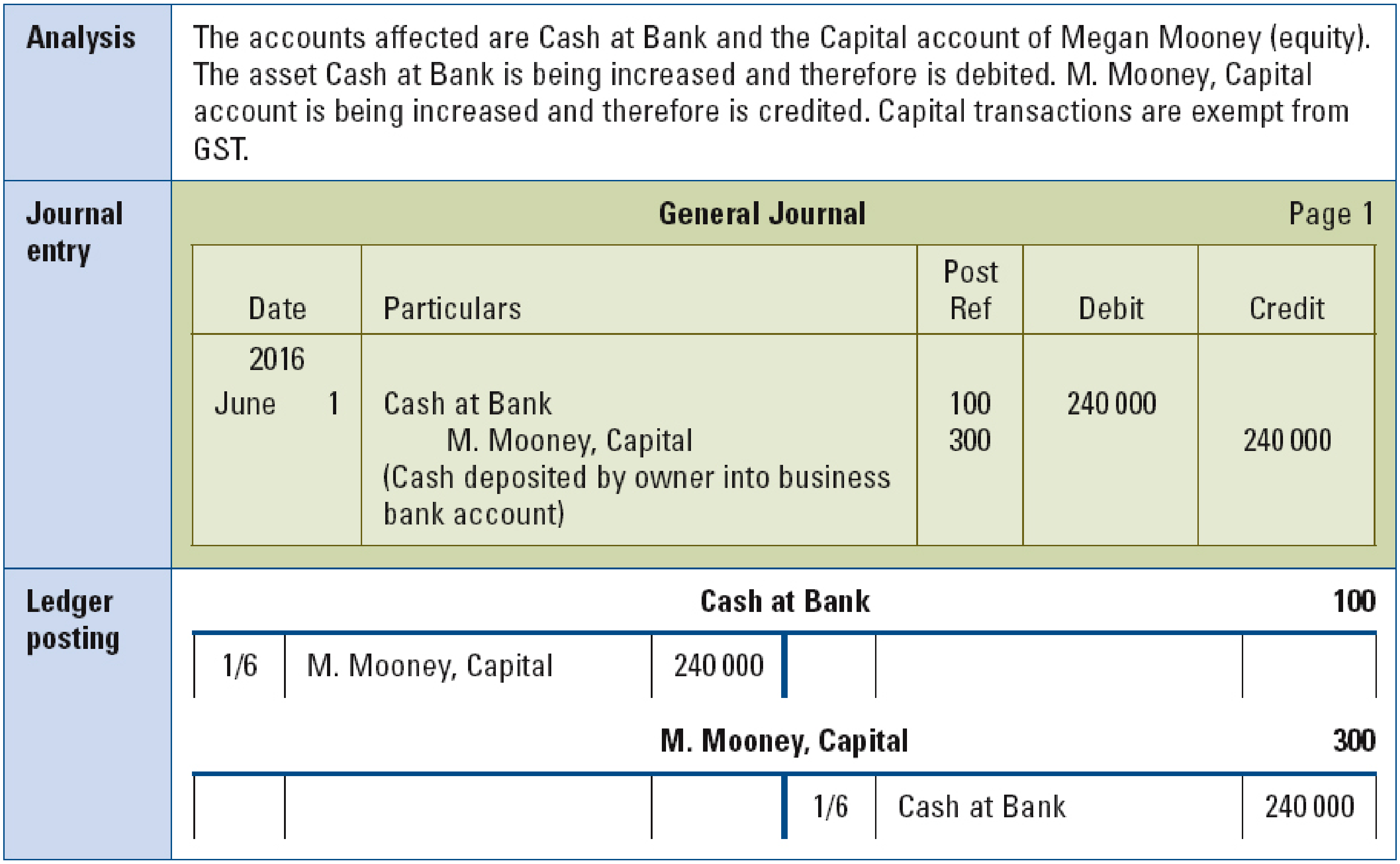
Illustrative example of journal and ledger

The June 2016 transactions for Intellect Management Services are used to illustrate the analysis of transactions and the sequence of steps to be followed in recording and summarising the transactions. GST transactions are shown as appropriate.

Step 1 involves an analysis of the transaction to identify which accounts are affected and whether an account needs to be increased or decreased. From the rules developed in the previous section it is then possible to determine whether to debit or credit the account involved. Note that each transaction affects two or more accounts with equal debits and credits so that, after posting, the accounting equation is still in balance. Having identified the accounts affected, it is possible to complete step 2. ***Step 2*** is the recording of the transaction in the general journal. This is the process of initial data entering. ***Step 3*** is the posting of the journal entry to the general ledger, presented in figure 3.12 on pages 102–5. For illustrative purposes, the T-account format is used and the accounts affected by each transaction are shown after posting has been completed. In the T accounts, the posting references to the journal are omitted at this stage for simplicity. Nevertheless, they must be present in practice, as illustrated later in the chapter.

The information accumulated in the general ledger in this chapter is used also in chapter 4 to prepare financial statements for the month of June. A time period of 1 month is used for illustrative purposes. However, as noted earlier, financial statements may be prepared at other intervals determined by management, such as every quarter, but they must be prepared annually at least.

1 June	Megan Mooney deposited $240 000 cash into an account opened for the management services business.



Analysis	The accounts affected are Cash at Bank and the Capital account of Megan Mooney (equity). The asset Cash at Bank is being increased and therefore is debited. M. Mooney, Capital account is being increased and therefore is credited. Capital transactions are exempt from GST.

Journal entry

General Journal Page 1

Date	Particulars	Post Ref	Debit	Credit
2016 June 1	Cash at Bank M. Mooney, Capital (Cash deposited by owner into business bank account)	100 300	240 000	 240 000

Ledger posting

Cash at Bank **100**

1/6	M. Mooney, Capital	240 000			

M. Mooney, Capital **300**

			1/6	Cash at Bank	240 000

1 June	Signed an agreement for the business to provide marketing services for a client for a monthly fee of $ 800 plus GST (10%) to be paid on the fifth day of the following month.

Analysis	Initially, signing the agreement does not create a recordable asset or income and therefore is not given accounting recognition. That is, the signing of the agreement does not normally constitute an accounting transaction. In the future, as the service is performed, the fee earned by the business plus GST is recognised as revenue in the accounts.
	There is no journal entry and hence no posting to the ledger.

2 June	Purchased land and office building for $300 000 plus GST (10%). The terms of the agreement provided for a payment by cheque of $90 000, the remainder to be financed with a 20-year mortgage bearing interest at 8% p.a. The purchase price is allocated $120 000 to land and $180 000 to the building.

Analysis

The land and building are both assets that are increased and are therefore debited. The GST paid is debited to the GST Receivable account. The Cash at Bank account is decreased by a credit. The unpaid portion of the purchase price is a claim against the business. A liability is therefore increased by a credit. Although this transaction involves more than two accounts (a compound entry), the sum of the dollar amounts debited equals the sum of the dollar amounts credited.

Journal entry

June 2	Land	150	120 000	
	Building	160	180 000	
	GST Receivable	120	30 000	
	Cash at Bank	100		90 000
	Mortgage Payable	260		240 000
	(Acquisition of land and buildings for cash and mortgage payable)			

Ledger posting

Cash at Bank 100

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000

GST Receivable 120

2/6	Cash at Bank/ Mortgage Payable	30 000			

Land 150

2/6	Cash at Bank/ Mortgage Payable	120 000			

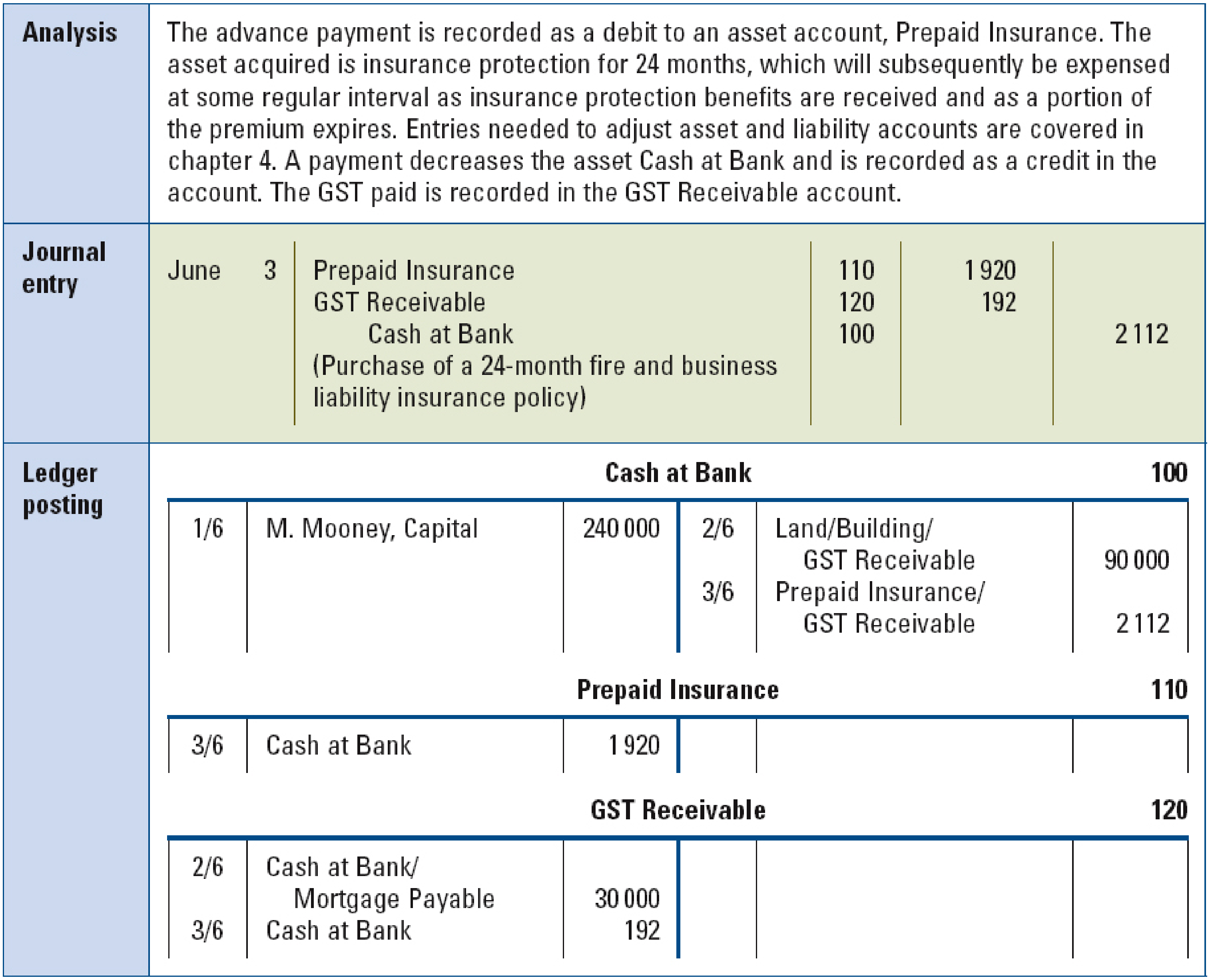
Building 160

2/6	Cash at Bank/ Mortgage Payable	180 000			

Mortgage Payable 260

			2/6	Land/Building/ GST Receivable	240 000

3 June A cash payment of $2112, representing $1920 for a 24-month fire and business liability insurance policy plus GST of $192, was made.



Analysis

The advance payment is recorded as a debit to an asset account, Prepaid Insurance. The asset acquired is insurance protection for 24 months, which will subsequently be expensed at some regular interval as insurance protection benefits are received and as a portion of the premium expires. Entries needed to adjust asset and liability accounts are covered in chapter 4. A payment decreases the asset Cash at Bank and is recorded as a credit in the account. The GST paid is recorded in the GST Receivable account.

Journal entry

June	3	Prepaid Insurance	110	1 920	
		GST Receivable	120	192	
		Cash at Bank	100		2 112
		(Purchase of a 24-month fire and business liability insurance policy)			

Ledger posting

Cash at Bank 100

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
			3/6	Prepaid Insurance/ GST Receivable	2 112

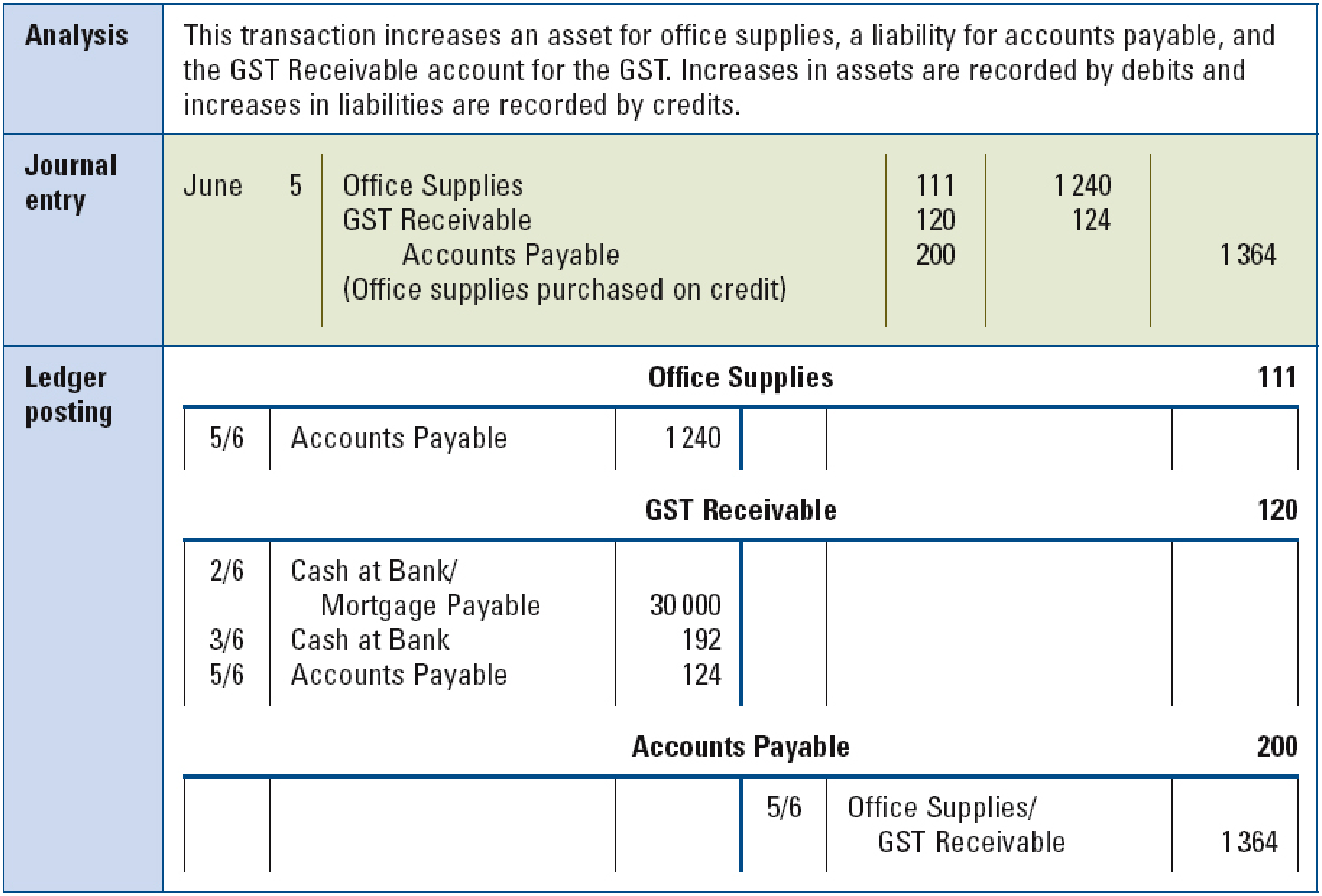
Prepaid Insurance 110

3/6	Cash at Bank	1 920			

GST Receivable 120

2/6	Cash at Bank/ Mortgage Payable	30 000			
3/6	Cash at Bank	192			

5 June Purchased office supplies for $1240 on credit, plus GST of $124.



Analysis

This transaction increases an asset for office supplies, a liability for accounts payable, and the GST Receivable account for the GST. Increases in assets are recorded by debits and increases in liabilities are recorded by credits.

Journal entry

June	5	Office Supplies	111	1 240	
		GST Receivable	120	124	
		Accounts Payable	200		1 364
		(Office supplies purchased on credit)			

Ledger posting

Office Supplies **111**

5/6	Accounts Payable	1 240			

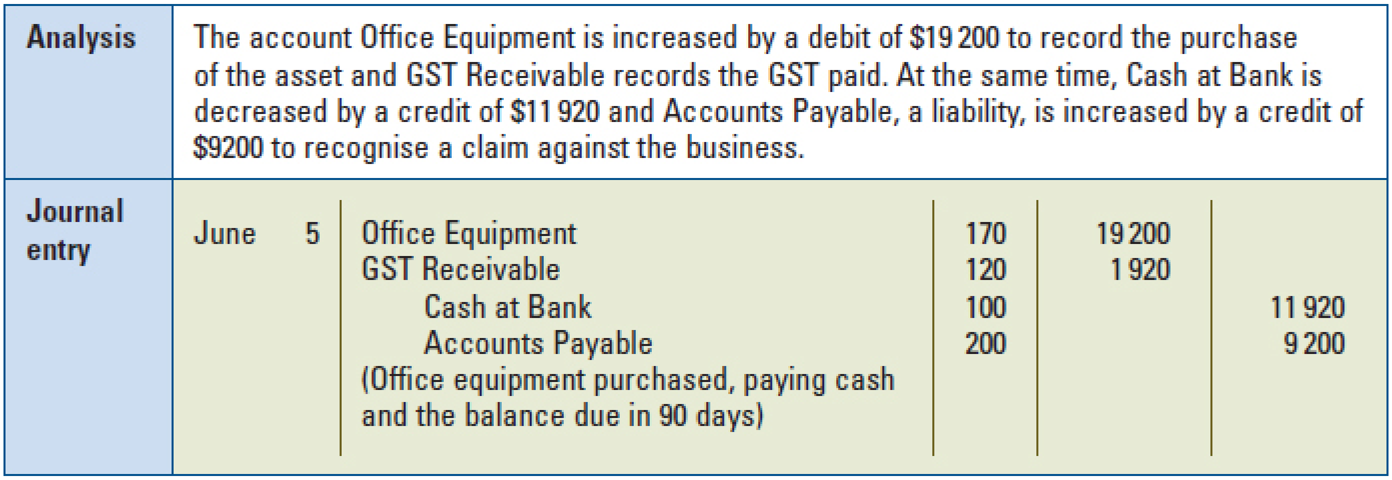
GST Receivable **120**

2/6	Cash at Bank/ Mortgage Payable	30 000			
3/6	Cash at Bank	192			
5/6	Accounts Payable	124			

Accounts Payable **200**

			5/6	Office Supplies/ GST Receivable	1 364

5 June Purchased office equipment for a price of $19 200 plus GST of $1920. Paid $11 920 in cash with the balance due in 90 days.

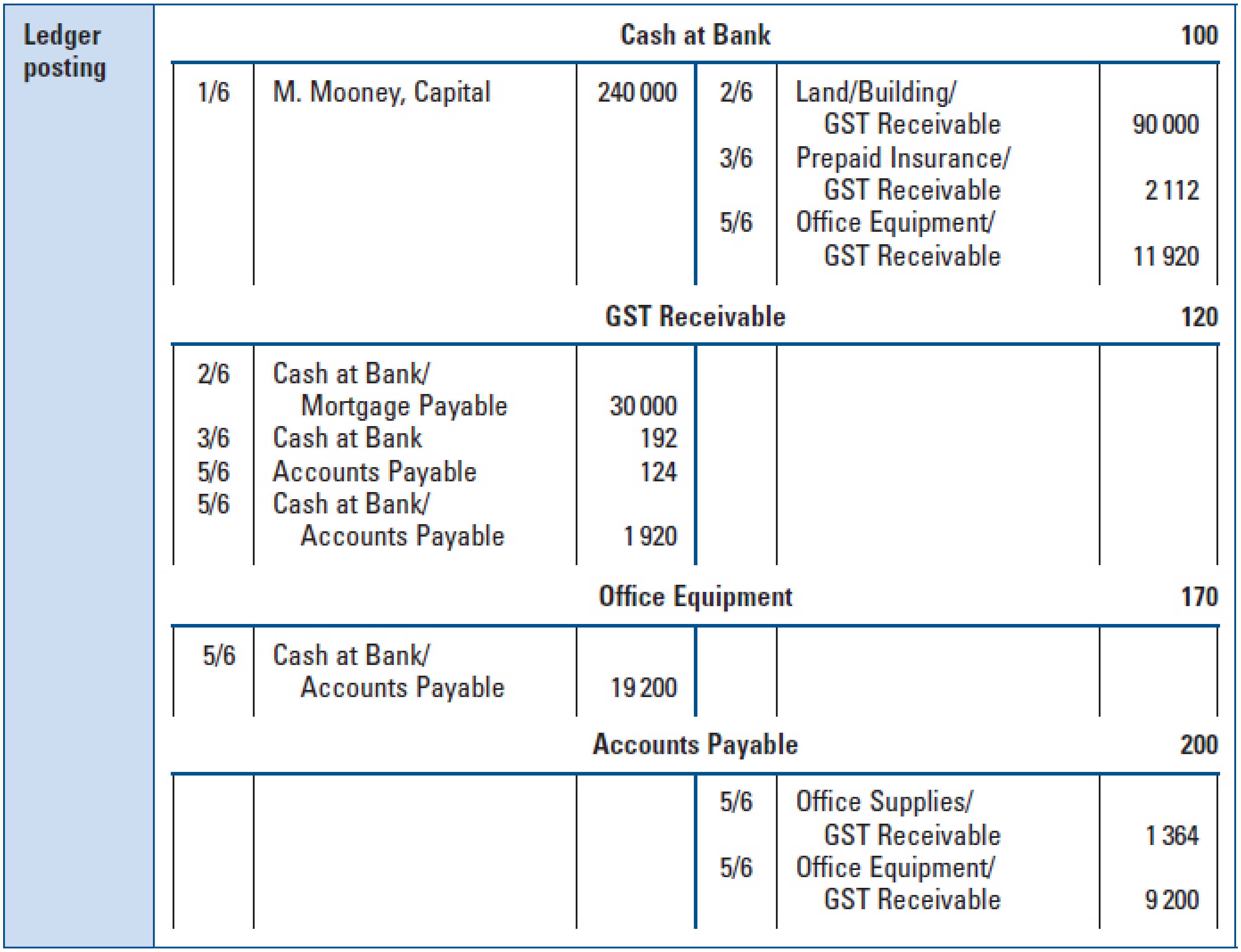


Analysis

The account Office Equipment is increased by a debit of $19 200 to record the purchase of the asset and GST Receivable records the GST paid. At the same time, Cash at Bank is decreased by a credit of $11 920 and Accounts Payable, a liability, is increased by a credit of $9200 to recognise a claim against the business.

Journal entry

June	5	Office Equipment	170	19 200	
		GST Receivable	120	1 920	
		Cash at Bank	100		11 920
		Accounts Payable	200		9 200
		(Office equipment purchased, paying cash and the balance due in 90 days)			



Ledger posting

Cash at Bank 100

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
			3/6	Prepaid Insurance/ GST Receivable	2 112
			5/6	Office Equipment/ GST Receivable	11 920

GST Receivable 120

2/6	Cash at Bank/ Mortgage Payable	30 000			
3/6	Cash at Bank	192			
5/6	Accounts Payable	124			
5/6	Cash at Bank/ Accounts Payable	1 920			

Office Equipment 170

5/6	Cash at Bank/ Accounts Payable	19 200			

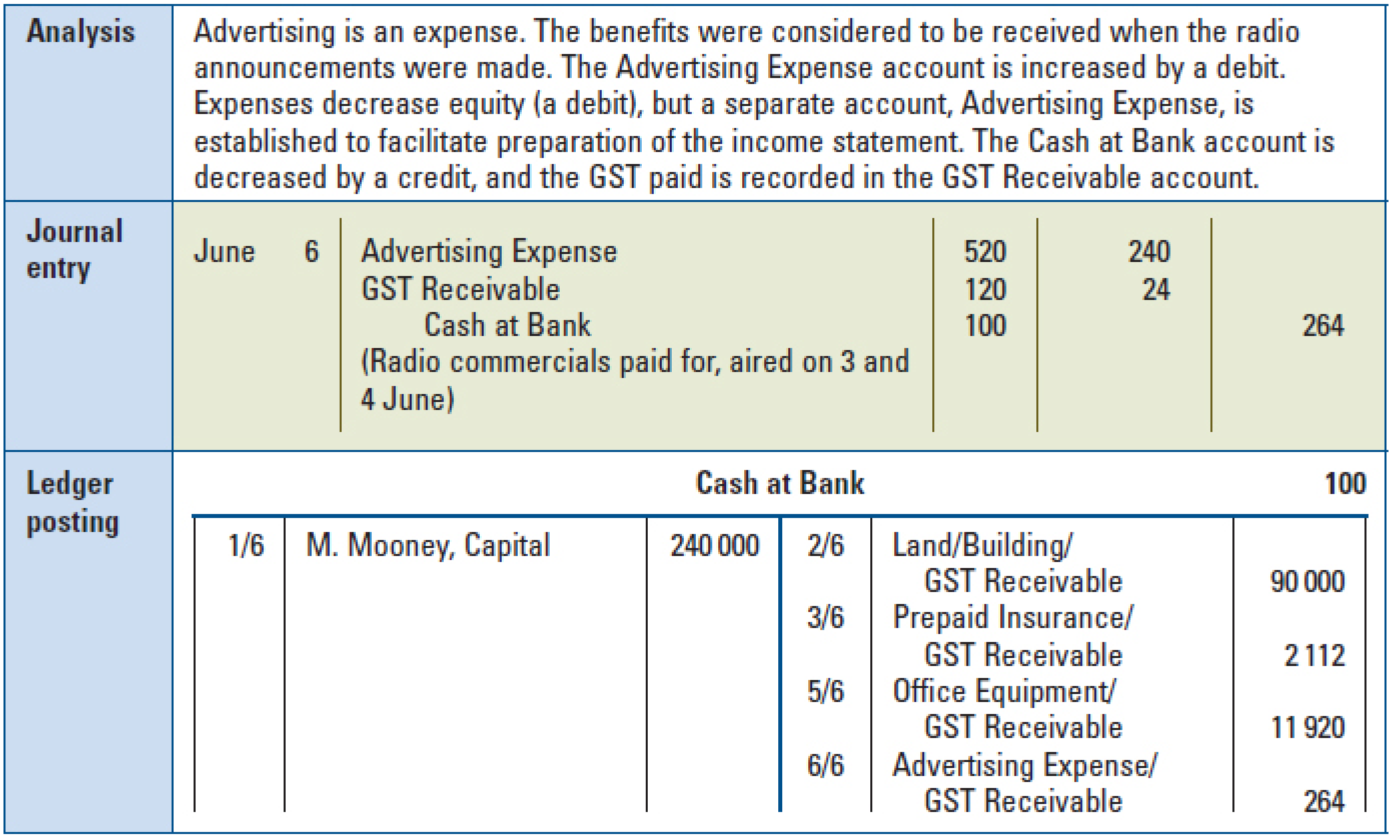
Accounts Payable 200

			5/6	Office Supplies/ GST Receivable	1 364
			5/6	Office Equipment/ GST Receivable	9 200

5 June Hired two management advisers and an office assistant.

Analysis	The hiring of employees is an important event to the business but is not recognised in the accounts since it is considered that an accounting transaction has not yet taken place. The new employees have, as yet, done nothing to alter the future economic benefits of the entity.
	There is no journal entry and hence no posting to the ledger.

6 June Paid $264 (including $24 GST) in cash for radio commercials aired on 3 and 4 June.



Analysis

Advertising is an expense. The benefits were considered to be received when the radio announcements were made. The Advertising Expense account is increased by a debit. Expenses decrease equity (a debit), but a separate account, Advertising Expense, is established to facilitate preparation of the income statement. The Cash at Bank account is decreased by a credit, and the GST paid is recorded in the GST Receivable account.

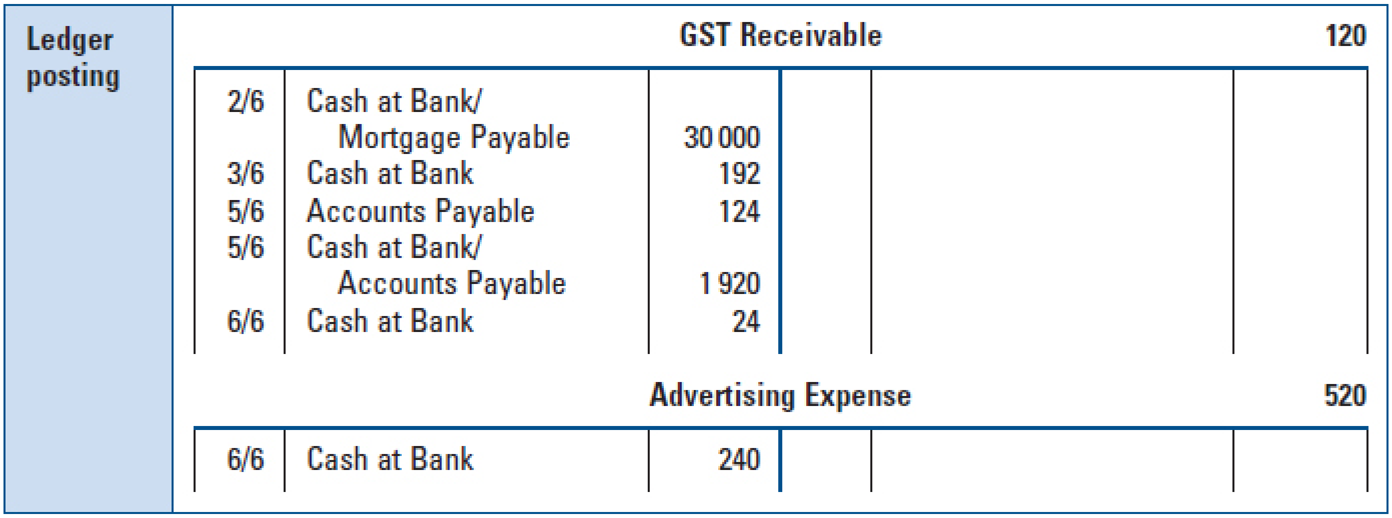
Journal entry

June	6	Advertising Expense	520	240	
		GST Receivable	120	24	
		Cash at Bank	100		264
		(Radio commercials paid for, aired on 3 and 4 June)			

Ledger posting

Cash at Bank 100

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
			3/6	Prepaid Insurance/ GST Receivable	2 112
			5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264



Ledger posting

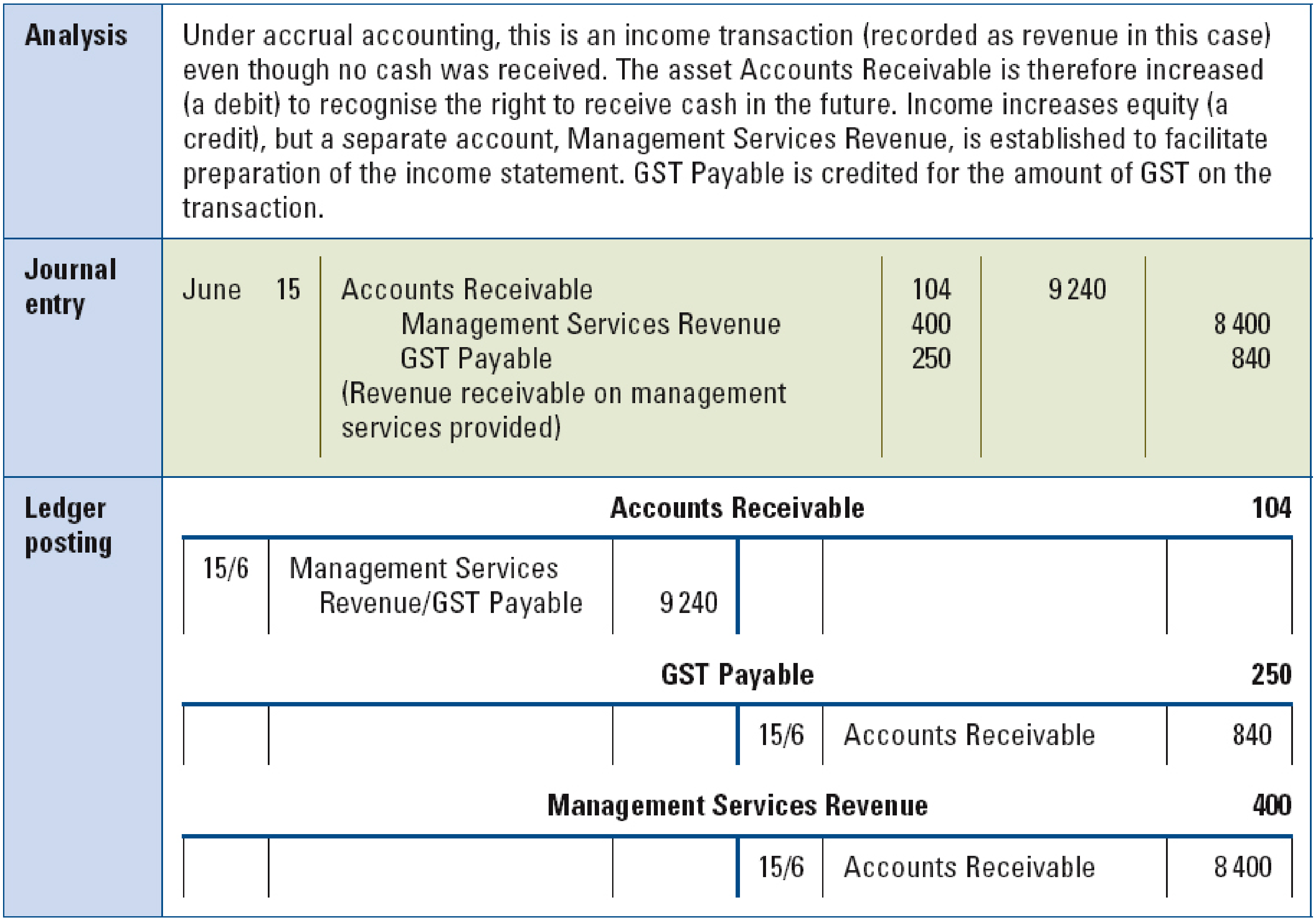
GST Receivable 120

2/6	Cash at Bank/ Mortgage Payable	30 000			
3/6	Cash at Bank	192			
5/6	Accounts Payable	124			
5/6	Cash at Bank/ Accounts Payable	1 920			
6/6	Cash at Bank	24			

Advertising Expense 520

6/6	Cash at Bank	240			

15 June Performed management services for a customer. A fee of $9240 (including GST of $840) was receivable for the services, to be received on or before 30 June.



Analysis

Under accrual accounting, this is an income transaction (recorded as revenue in this case) even though no cash was received. The asset Accounts Receivable is therefore increased (a debit) to recognise the right to receive cash in the future. Income increases equity (a credit), but a separate account, Management Services Revenue, is established to facilitate preparation of the income statement. GST Payable is credited for the amount of GST on the transaction.

Journal entry

June 15	Accounts Receivable	104	9 240	
	Management Services Revenue	400		8 400
	GST Payable	250		840
	(Revenue receivable on management services provided)			

Ledger posting

Accounts Receivable 104

15/6	Management Services Revenue/GST Payable	9 240			

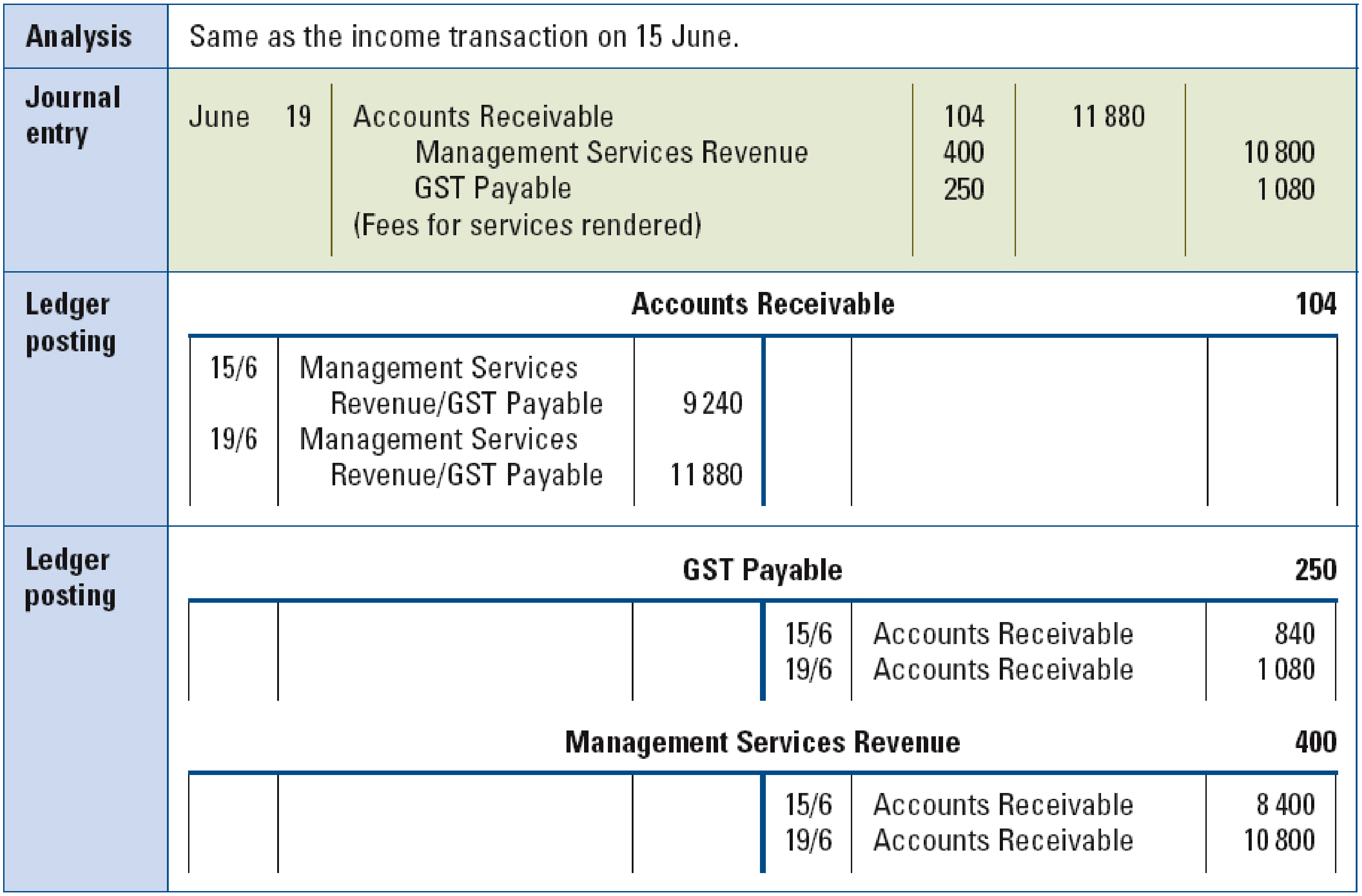
GST Payable 250

			15/6	Accounts Receivable	840

Management Services Revenue 400

			15/6	Accounts Receivable	8 400

19 June Performed management services for a client. A fee of $10 800 was receivable, plus GST of $1080.



Analysis

Same as the income transaction on 15 June.

Journal entry

June	19	Accounts Receivable	104	11 880	
		Management Services Revenue	400		10 800
		GST Payable	250		1 080
		(Fees for services rendered)			

Ledger posting

Accounts Receivable **104**

15/6	Management Services Revenue/GST Payable	9 240			
19/6	Management Services Revenue/GST Payable	11 880			

Ledger posting

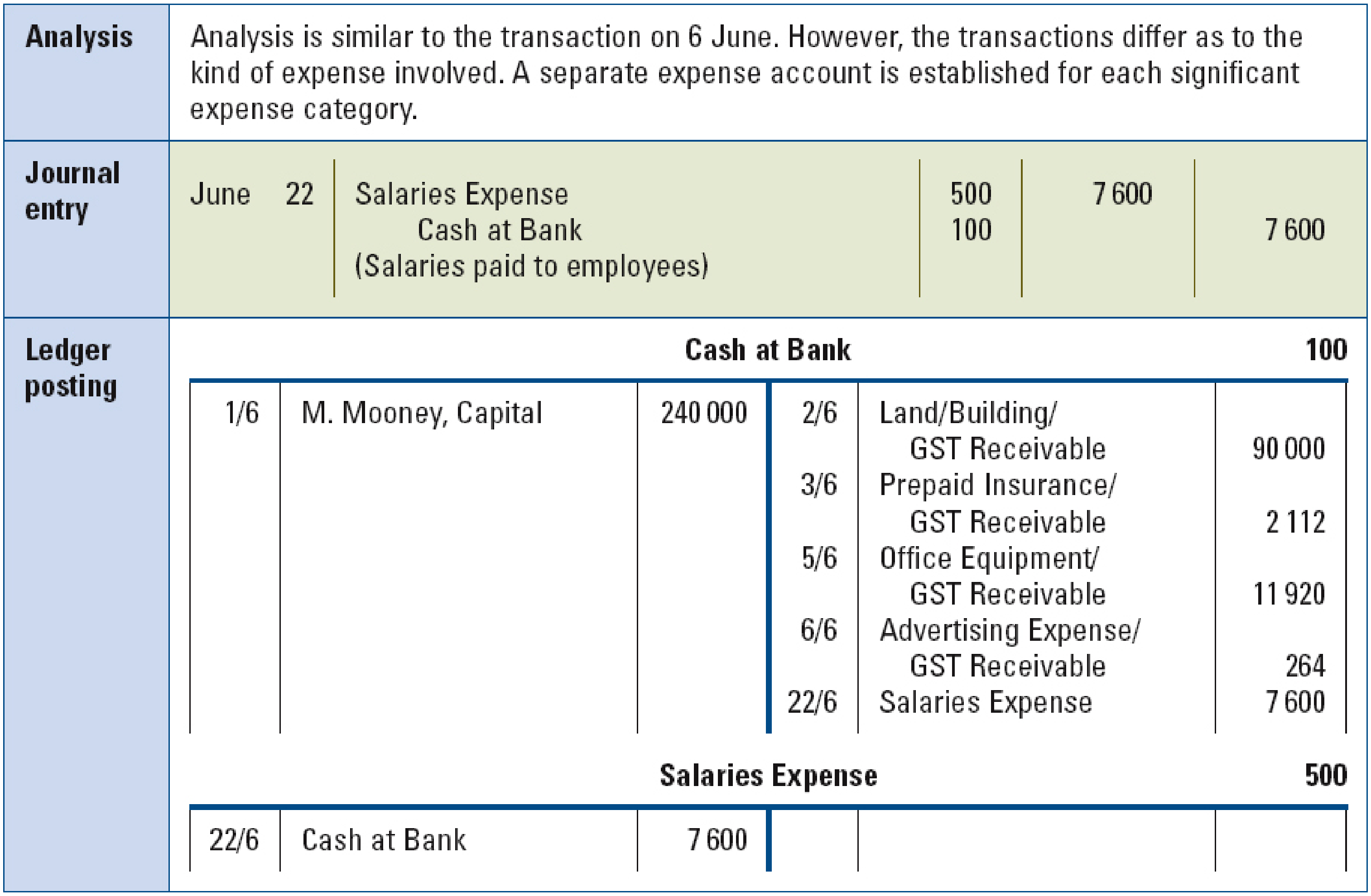
GST Payable **250**

			15/6	Accounts Receivable	840
			19/6	Accounts Receivable	1 080

Management Services Revenue **400**

			15/6	Accounts Receivable	8 400
			19/6	Accounts Receivable	10 800

22 June Paid salaries of $7600 to the office assistant and other employees for services rendered during the last two weeks.[1] (Deductions from the employees’ salaries are ignored for now.) No GST is payable on wages and salaries.



Analysis

Analysis is similar to the transaction on 6 June. However, the transactions differ as to the kind of expense involved. A separate expense account is established for each significant expense category.

Journal entry

June	22	Salaries Expense	500	7 600	
		Cash at Bank	100		7 600
		(Salaries paid to employees)			

Ledger posting

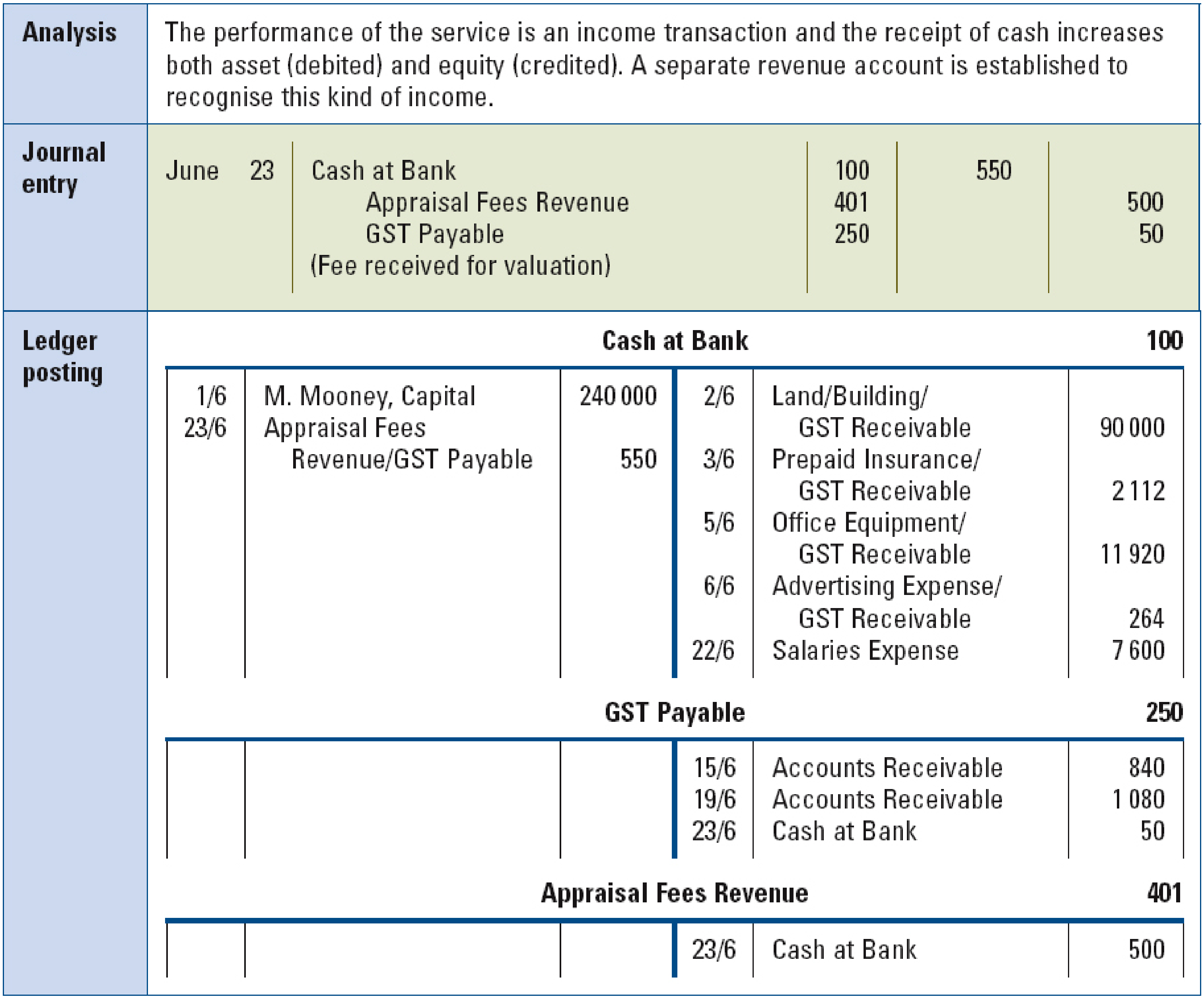
Cash at Bank **100**

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
			3/6	Prepaid Insurance/ GST Receivable	2 112
			5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600

Salaries Expense **500**

22/6	Cash at Bank	7 600			

23 June Conducted a valuation of a customer’s property and received a fee of $550 (including 10% GST) in cash.



Analysis

The performance of the service is an income transaction and the receipt of cash increases both asset (debited) and equity (credited). A separate revenue account is established to recognise this kind of income.

Journal entry

June	23	Cash at Bank	100	550	
		Appraisal Fees Revenue	401		500
		GST Payable	250		50
		(Fee received for valuation)			

Ledger posting

Cash at Bank **100**

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
23/6	Appraisal Fees Revenue/GST Payable	550	3/6	Prepaid Insurance/ GST Receivable	2 112
			5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600

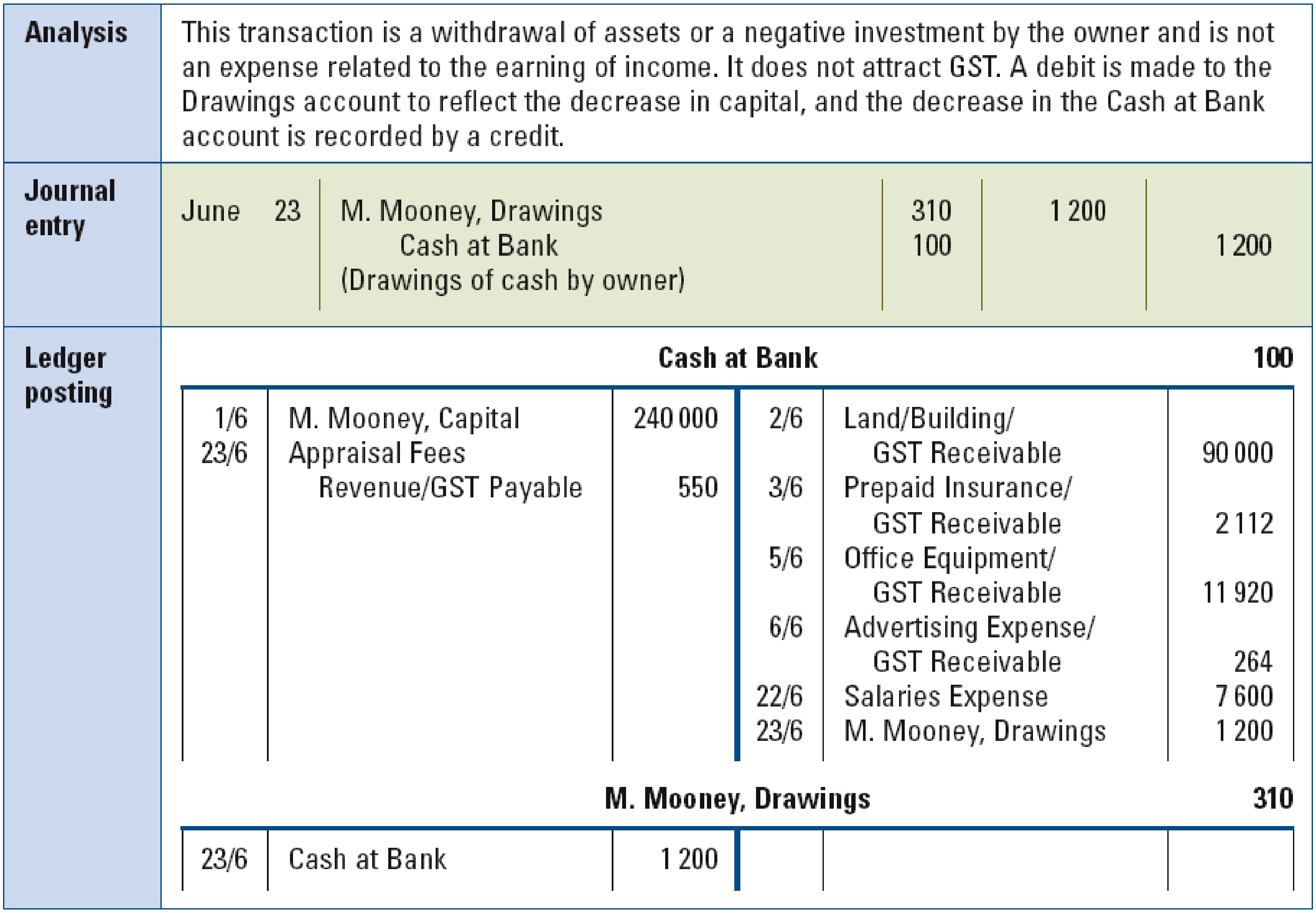
GST Payable **250**

			15/6	Accounts Receivable	840
			19/6	Accounts Receivable	1 080
			23/6	Cash at Bank	50

Appraisal Fees Revenue **401**

			23/6	Cash at Bank	500

23 June Mooney withdrew $1200 cash from the business bank account for her personal use.



Analysis

This transaction is a withdrawal of assets or a negative investment by the owner and is not an expense related to the earning of income. It does not attract GST. A debit is made to the Drawings account to reflect the decrease in capital, and the decrease in the Cash at Bank account is recorded by a credit.

Journal entry

June	23	M. Mooney, Drawings	310	1 200	
		Cash at Bank	100		1 200
		(Drawings of cash by owner)			

Ledger posting

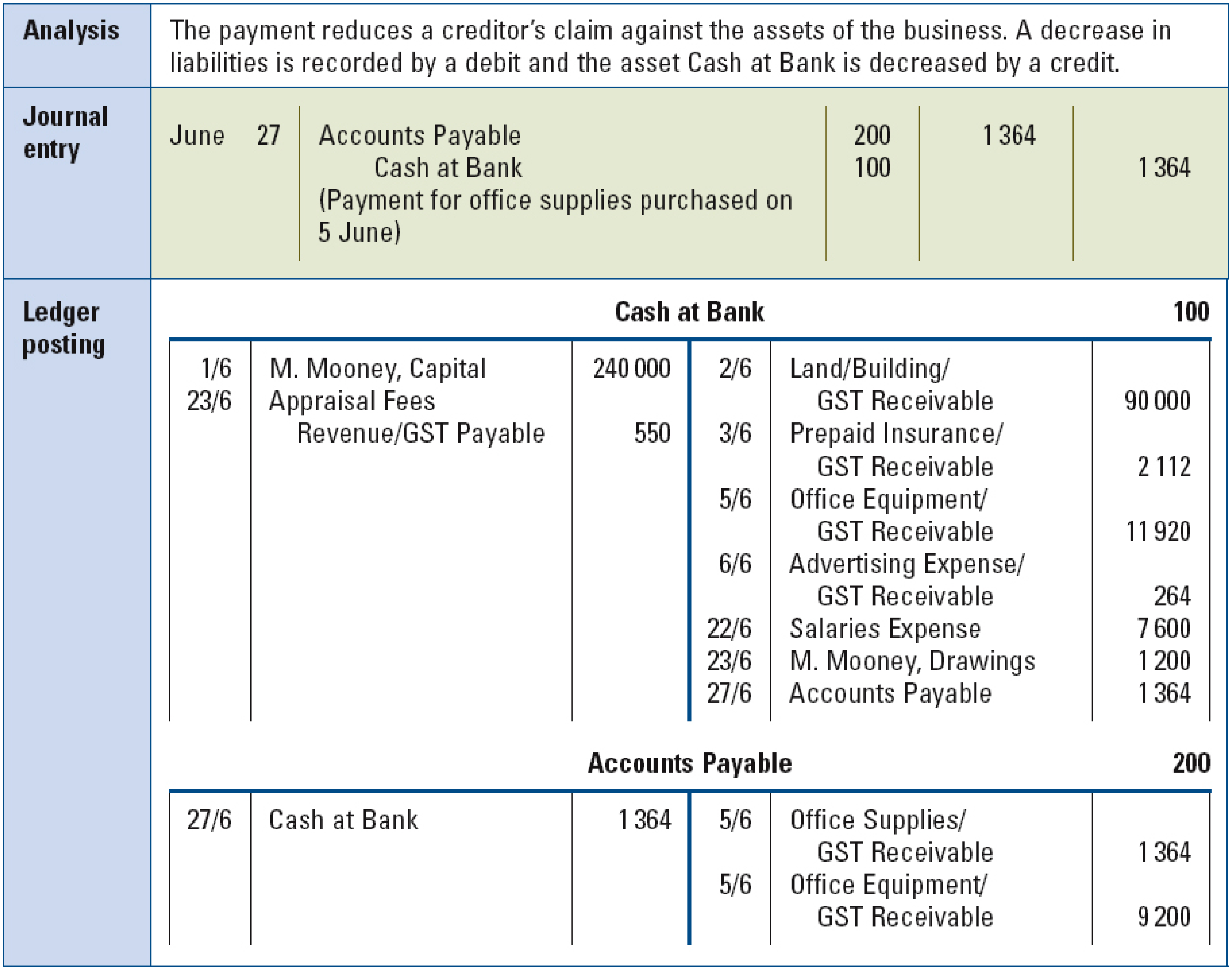
Cash at Bank 100

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
23/6	Appraisal Fees Revenue/GST Payable	550	3/6	Prepaid Insurance/ GST Receivable	2 112
			5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600
			23/6	M. Mooney, Drawings	1 200

M. Mooney, Drawings 310

23/6	Cash at Bank	1 200			

27 June Paid $1364 cash to creditors for office supplies purchased on credit on 5 June. No GST is recorded here as the GST was recorded on 5 June, and is recorded in the $1364 owing.



Analysis

The payment reduces a creditor's claim against the assets of the business. A decrease in liabilities is recorded by a debit and the asset Cash at Bank is decreased by a credit.

Journal entry

June	27	Accounts Payable	200	1 364	
		Cash at Bank	100		1 364
		(Payment for office supplies purchased on 5 June)			

Ledger posting

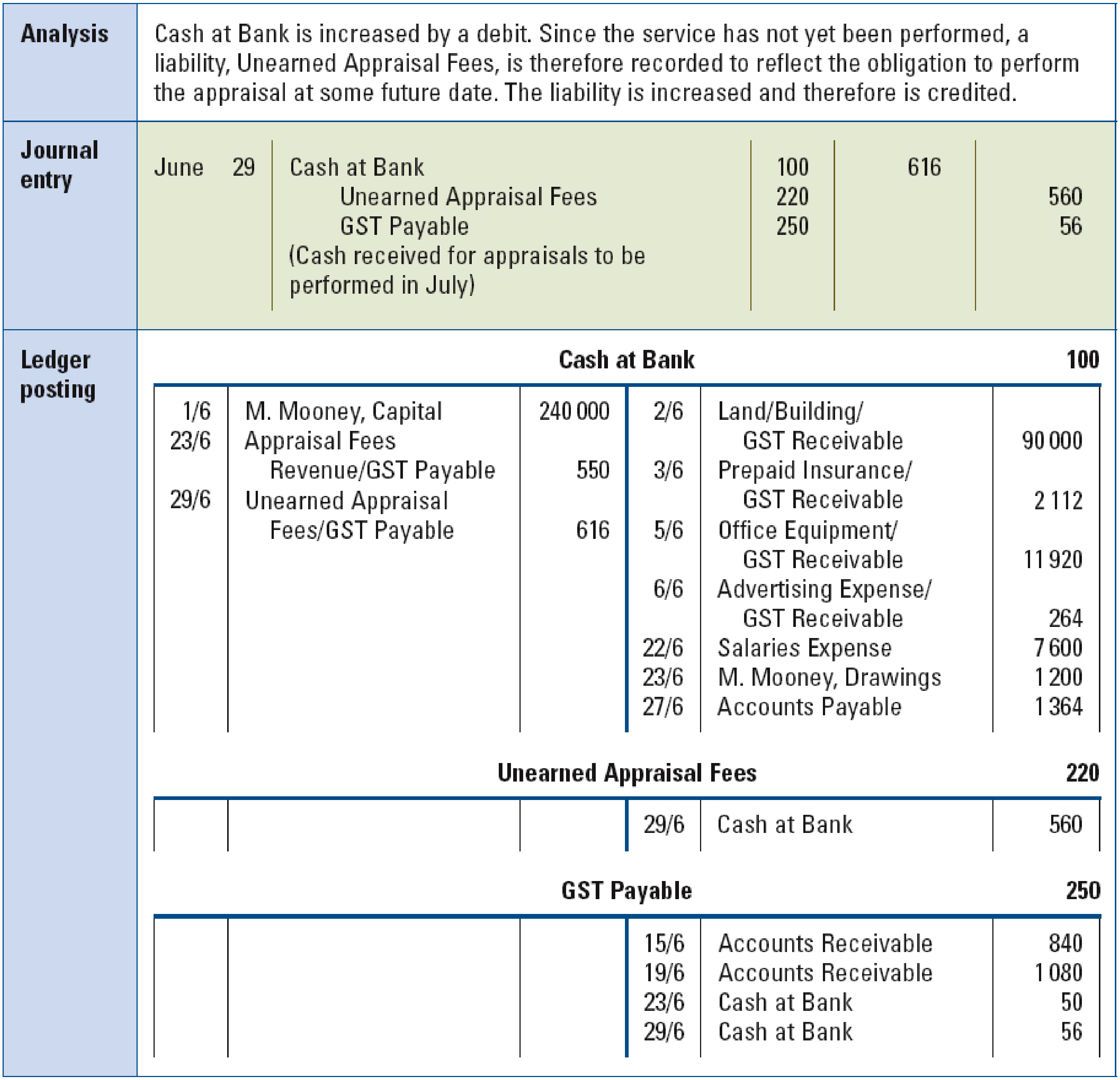
Cash at Bank **100**

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
23/6	Appraisal Fees Revenue/GST Payable	550	3/6	Prepaid Insurance/ GST Receivable	2 112
			5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600
			23/6	M. Mooney, Drawings	1 200
			27/6	Accounts Payable	1 364

Accounts Payable **200**

27/6	Cash at Bank	1 364	5/6	Office Supplies/ GST Receivable	1 364
			5/6	Office Equipment/ GST Receivable	9 200

29 June Received cash of $616 for valuation appraisals to be performed in July, and banked the money. The money includes $56 for GST.



Analysis

Cash at Bank is increased by a debit. Since the service has not yet been performed, a liability, Unearned Appraisal Fees, is therefore recorded to reflect the obligation to perform the appraisal at some future date. The liability is increased and therefore is credited.

Journal entry

June	29	Cash at Bank	100	616	
		Unearned Appraisal Fees	220		560
		GST Payable	250		56
		(Cash received for appraisals to be performed in July)			

Ledger posting

Cash at Bank **100**

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
23/6	Appraisal Fees Revenue/GST Payable	550	3/6	Prepaid Insurance/ GST Receivable	2 112
29/6	Unearned Appraisal Fees/GST Payable	616	5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600
			23/6	M. Mooney, Drawings	1 200
			27/6	Accounts Payable	1 364

Unearned Appraisal Fees **220**

			29/6	Cash at Bank	560

GST Payable **250**

			15/6	Accounts Receivable	840
			19/6	Accounts Receivable	1 080
			23/6	Cash at Bank	50
			29/6	Cash at Bank	56

30 June Paid the month's telephone bill of $160 plus $16 for GST.

Analysis	Analysis is similar to transaction on 6 June.

Journal entry

June	30	Telephone Expense	510	160	
		GST Receivable	120	16	
		Cash at Bank	100		176
		(Telephone bill paid for June)			

Ledger posting

Cash at Bank **100**

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
23/6	Appraisal Fees Revenue/GST Payable	550	3/6	Prepaid Insurance/ GST Receivable	2 112
29/6	Unearned Appraisal Fees/GST Payable	616	5/6	Office Equipment/ GST Receivable	11 920
			6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600
			23/6	M. Mooney, Drawings	1 200
			27/6	Accounts Payable	1 364
			30/6	Telephone Expense/ GST Receivable	176

GST Receivable **120**

2/6	Cash at Bank/ Mortgage Payable	30 000			
3/6	Cash at Bank	192			
5/6	Accounts Payable	124			
5/6	Cash at Bank/ Accounts Payable	1 920			
6/6	Cash at Bank	24			
30/6	Cash at Bank	16			

Telephone Expense **510**

30/6	Cash at Bank	160			

30 June An amount of $9240 was received for management services rendered and invoiced on 15 June, and was direct deposited into the business bank account. No GST is recorded here as the GST was recorded on 15 June.

Analysis

The increase in Cash at Bank is recorded by a debit. The receipt also reduces the claims against a debtor. A decrease in the asset Accounts Receivable is recorded by a credit. Note that this transaction increases one asset and decreases another. Recall that income (in the form of revenue) was recorded on 15 June, that is, when the services were rendered to the client rather than when the cash was collected.

Journal entry

June 30	Cash at Bank	100	9 240	
	Accounts Receivable	104		9 240
	(Cash received in relation to management services on 15 June)			

Ledger posting

Cash at Bank **100**

1/6	M. Mooney, Capital	240 000	2/6	Land/Building/ GST Receivable	90 000
23/6	Appraisal Fees Revenue/GST Payable	550	3/6	Prepaid Insurance/ GST Receivable	2 112
29/6	Unearned Appraisal Fees/GST Payable	616	5/6	Office Equipment/ GST Receivable	11 920
30/6	Accounts Receivable	9 240	6/6	Advertising Expense/ GST Receivable	264
			22/6	Salaries Expense	7 600
			23/6	M. Mooney, Drawings	1 200
			27/6	Accounts Payable	1 364
			30/6	Telephone Expense/ GST Receivable	176

Accounts Receivable **104**

15/6	Management Services Revenue/GST Payable	9 240	30/6	Cash at Bank	9 240
19/6	Management Services Revenue/GST Payable	11 880			

In summary, the complete general journal for the month of June 2016 is illustrated in figure 3.11.

Figure 3.11 General journal of Intellect Management Services

General Journal Page 1

Date	Particulars	Post Ref	Debit	Credit
2016				
June 1	Cash at Bank	100	240 000	
	M. Mooney, Capital	300		240 000
	(Cash deposited by owner into business bank account)			
2	Land	150	120 000	
	Building	160	180 000	
	GST Receivable	120	30 000	
	Cash at Bank	100		90 000
	Mortgage Payable	260		240 000
	(Acquisition of land and buildings for cash and mortgage payable)			
3	Prepaid Insurance	110	1 920	
	GST Receivable	120	192	
	Cash at Bank	100		2 112
	(Purchase of a 24-month fire and business liability insurance policy)			
5	Office Supplies	111	1 240	
	GST Receivable	120	124	
	Accounts Payable	200		1 364
	(Office supplies purchased on credit)			
5	Office Equipment	170	19 200	
	GST Receivable	120	1 920	
	Cash at Bank	100		11 920
	Accounts Payable	200		9 200
	(Office equipment purchased, paying cash and the balance due in 90 days)			

General Journal Page 2

Date	Particulars	Post Ref	Debit	Credit
2016				
June 6	Advertising Expense	520	240	
	GST Receivable	120	24	
	Cash at Bank	100		264
	(Radio commercials paid for aired on 3 and 4 June)			
15	Accounts Receivable	104	9 240	

	Management Services Revenue	400		8 400
	GST Payable	250		840
	(Revenue receivable on management services provided)			
19	Accounts Receivable	104	11 880	
	Management Services Revenue	400		10 800
	GST Payable	250		1 080
	(Fees for services rendered)			
22	Salaries Expense	500	7 600	
	Cash at Bank	100		7 600
	(Salaries paid to employees)			
23	Cash at Bank	100	550	
	Appraisal Fees Revenue	401		500
	GST Payable	250		50
	(Fee received for valuation)			
23	M. Mooney, Drawings	310	1 200	
	Cash at Bank	100		1 200
	(Drawings of cash by owner)			
27	Accounts Payable	200	1 364	
	Cash at Bank	100		1 364
	(Payment for office supplies purchased on 5 June)			
29	Cash at Bank	100	616	
	Unearned Appraisal Fees	220		560
	GST Payable	250		56
	(Cash received for appraisals to be performed in July)			
30	Telephone Expense	510	160	
	GST Receivable	120	16	
	Cash at Bank	100		176
	(Telephone bill paid for June)			
30	Cash at Bank	100	9 240	
	Accounts Receivable	104		9 240
	(Cash received in relation to management services on 15 June)			
			636 726	636 726

The general ledger for Intellect Management Services, showing the effects of the transactions on the accounts maintained by the business, is presented in figure 3.12 (pp. 102–5). In an actual manual accounting system, each account would be a separate page or card. The running balance format is used in figure 3.12 rather than the T-account form, which was used before, to illustrate the effects of the transactions on the accounts.

Figure 3.12 General ledger of Intellect Management Services, using running balance format

General Ledger

ACCOUNT **Cash at Bank** Account No. **100**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	1	M. Mooney, Capital	1	240 000		240 000
	2	Land/Building/GST Receivable	1		90 000	150 000
	3	Prepaid Insurance/ GST Receivable	1		2 112	147 888
	5	Office Equipment/ GST Receivable	1		11 920	135 968
	6	Advertising Expense/ GST Receivable	1		264	135 704
	22	Salaries Expense	2		7 600	128 104
	23	Appraisal Fees Revenue/ GST Payable	2	550		128 654
	23	M. Mooney, Drawings	2		1 200	127 454
	27	Accounts Payable	2		1 364	126 090
	29	Unearned Appraisal Fees/ GST Payable	2	616		126 706
	30	Telephone Expense/ GST Receivable	2		176	126 530
	30	Accounts Receivable	2	9 240		135 770

ACCOUNT **Accounts Receivable** Account No. **104**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	15	Management Services Revenue/ GST Payable	1	9 240		9 240
	19	Management Services Revenue/ GST Payable	2	11 880		21 120
	30	Cash at Bank	2		9 240	11 880

ACCOUNT **Prepaid Insurance** Account No. **110**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	3	Cash at Bank	1	1 920		1 920

ACCOUNT **Office Supplies** Account No. **111**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 5	Accounts Payable	1	1 240		1 240

ACCOUNT **GST Receivable** Account No. **120**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 2	Cash at Bank/ Mortgage Payable	1	30 000		30 000
3	Cash at Bank	1	192		30 192
5	Accounts Payable	1	124		30 316
5	Cash at Bank/ Accounts Payable	1	1 920		32 236
6	Cash at Bank	1	24		32 260
30	Cash at Bank	2	16		32 276

ACCOUNT **Land** Account No. **150**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 2	Cash at Bank/ Mortgage Payable	1	120 000		120 000

ACCOUNT **Building** Account No. **160**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 2	Cash at Bank/ Mortgage Payable	1	180 000		180 000

ACCOUNT **Office Equipment** Account No. **170**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 5	Cash at Bank/ Accounts Payable	1	19 200		19 200

ACCOUNT **Accounts Payable** Account No. **200**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 5	Office Supplies/ GST Receivable	1		1 364	1 364
5	Office Equipment/ GST Receivable	1		9 200	10 564
27	Cash at Bank	2	1 364		9 200

ACCOUNT **Unearned Appraisal Fees** Account No. **220**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 29	Cash at Bank	2		560	560

ACCOUNT **GST Payable** Account No. **250**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 15	Accounts Receivable	1		840	840
19	Accounts Receivable	2		1 080	1 920
23	Cash at Bank	2		50	1 970
29	Cash at Bank	2		56	2 026

ACCOUNT **Mortgage Payable** Account No. **260**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 2	Land/Buildings/GST Receivable	1		240 000	240 000

ACCOUNT **M. Mooney, Capital** Account No. **300**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 1	Cash at Bank	1		240 000	240 000

ACCOUNT **M. Mooney, Drawings** Account No. **310**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 23	Cash at Bank	2	1 200		1 200

ACCOUNT **Management Services Revenue** Account No. **400**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 15	Accounts Receivable	1		8 400	8 400
19	Accounts Receivable	2		10 800	19 200

ACCOUNT **Appraisal Fees Revenue** Account No. **401**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 23	Cash at Bank	2		500	500

ACCOUNT **Salaries Expense** Account No. **500**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 22	Cash at Bank	2	7 600		7 600

ACCOUNT **Telephone Expense** Account No. **510**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Cash at Bank	2	160		160

ACCOUNT **Advertising Expense** Account No. **520**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 6	Cash at Bank	1	240		240

BUSINESS KNOWLEDGE

Getting ready for sustainability reporting

'Crunch time' arrived for many large and medium-sized firms in Australia that had to start reporting on greenhouse gas activities under the ***National Greenhouse and Energy Reporting (NGER) Act 2007***. If fact, hundreds of companies faced reporting for the first time if they emitted greenhouse gases, produced energy, or consumed energy at or above set levels.

Commentators at the time noted that issues surrounded data-capture processes that were typically set up for financial information. Many companies first reporting on their carbon footprint attempt to use existing data, which is not enough. Estimations were that two years are required to get to a robust set of greenhouse gas accounts. In most cases, new systems and staff retraining are required.

Source: Based on Tarrant, D, 'The root of the matter', ***InTheBlack***.

LEARNING CHECK

☐ Transactions are recorded first in a journal (to provide a complete record of all transactions in chronological order) and then posted to the appropriate ledger accounts.

☐ Two or more accounts are affected by each transaction. The sum of the debit amounts for every transaction equals the sum of the credit amounts, so that the equality of the accounting equation is maintained.

3.5 Trial balance

LO 5 **Discuss the purpose of a trial balance and how to prepare one.**

The double-entry accounting system requires equal dollar amounts of debits and credits to be recorded in the accounts for every transaction. The equality of debits and credits posted to the ledger accounts is verified by preparing a **trial balance** — a list of all of the accounts in the order in which they appear in the general ledger with their current balances. The dollar amounts of accounts with debit balances are listed in one column, and the dollar amounts of accounts with credit balances are listed in a second column. The totals of the two columns should be equal. When this occurs, the ledger is said to be 'in balance'. Figure 3.13 is a trial balance based on the accounts in the general ledger of Intellect Management Services (see figure 3.12).

Figure 3.13 Trial balance of Intellect Management Services

INTELLECT MANAGEMENT SERVICES
Trial Balance
as at 30 June 2016

Account	Account no.	Debit	Credit
Cash at bank	100	$135 770	
Accounts receivable	104	11 880	
Prepaid insurance	110	1 920	
Office supplies	111	1 240	
GST receivable	120	32 276	
Land	150	120 000	
Building	160	180 000	
Office equipment	170	19 200	
Accounts payable	200		$ 9 200
Unearned appraisal fees	220		560
GST payable	250		2 026
Mortgage payable	260		240 000
M. Mooney, Capital	300		240 000
M. Mooney, Drawings	310	1 200	
Management services revenue	400		19 200
Appraisal fees revenue	401		500
Salary expense	500	7 600	
Telephone expense	510	160	
Advertising expense	530	240	
		$511 486	$511 486

Note that a trial balance may be prepared at any time to test the equality of debits and credits in the ledger. In a computerised accounting system, the computer will automatically produce a trial balance when requested by the user of the system.

Limitations of the trial balance

The fact that the sum of the debit column equals the sum of the credit column in the trial balance does not guarantee that errors have not been made. The trial balance is simply a check that equal debits and credits have been recorded in the accounts. It also verifies that the account balances were calculated correctly, based on the recorded data. However, errors could be made that do not affect the equality of debits and credits. For example, a correct amount could have been posted to the wrong account, a journal entry might have been omitted, or an incorrect amount could have been posted to both of the correct accounts. The possibility of making such errors highlights the need to exercise care when entering and posting transactions.

Some errors are discovered by chance or during normal operations. For example, if an account receivable is overstated, the customer will usually point this out when the monthly accounts are sent. Other errors may be identified through procedures established by the business to check on the accuracy of its records. For example, as is discussed in a later chapter, a bank reconciliation is prepared each month to verify the balance in the Cash at Bank account.

A trial balance that does not balance is a clear indication of one or more errors in the accounts, or an error in preparing the trial balance. Although there is no one correct procedure for locating all types of errors, the following systematic approach will be helpful.

1. Check the accuracy of the trial balance totals by adding the columns again.
2. Calculate the difference between the totals. Certain types of errors may be identified by performing a couple of simple mathematical exercises. For example, the amount of the difference may be equal to a debit or credit that was omitted. If the difference between the trial balance totals is divisible by 2, this could indicate that a debit account balance is listed accidentally in the trial balance as a credit or vice versa. The trial balance and journal should first be reviewed for each of these amounts.

   If the difference between the two trial balance totals is divisible by 9, it may be an indication of two common errors called **transpositions** and **slides**. To illustrate, assume that an expense account should have been debited for $4610. If the error is a transposition, the order of the digits in a number is altered, e.g. posting the amount as $4160. In a slide, the decimal point is shifted to the left or right, e.g. writing $461 instead of $4610. In both types of errors, the difference between the correct number and the incorrect number can be divided evenly by 9.
3. Compare the balances listed in the trial balance with the ledger accounts to verify that all account balances were included and copied correctly.
4. Recalculate the account balances.
5. Verify that the debits equal the credits for each entry in the journal.
6. Trace the entries as recorded in the journal to the ledger accounts, and place a small tick by each account in the journal and ledger as each posting is verified. Be alert for the posting of wrong amounts and debits posted as credits or vice versa. If the error is not found before this process is completed, review the journal and ledger, looking for amounts without a tick.

Correcting errors

Once an error is located, it must be corrected. An error in a journal entry discovered before the amount is posted is corrected by crossing out the wrong amount with a single line and inserting the correct amount immediately above. An error in a ledger amount is corrected in the same way. Errors should not be erased because this may give the impression that something is being concealed.

Journal entries that have been posted in the wrong accounts should be corrected by a journal entry. For example, assume that the receipt of cash for the performance of a service for a customer was entered in the journal and posted in the ledger to the following accounts:

Feb.	14	Accounts Receivable	946	
		Service Revenue		860
		GST Payable		86
		(Performance of a service on account)		

A correcting entry is needed to cancel the incorrect debit to Accounts Receivable and to record a correct debit to the Cash at Bank account.

March	10	Cash at Bank	946	
		Accounts Receivable		946
		(Correction of entry on 14 Feb. in which a cash receipt was debited to Accounts Receivable)		

Use of dollar signs and decimal points

Note that in the figures in this chapter dollar signs are not used in the journal or the ledger. Dollar signs are used, however, in the financial statements and other financial reports. A common practice in formal statements is to place a dollar sign before the first amount in a column of figures and also before the total amount. When dollar amounts are entered in the journal or ledger and the columns are ruled, decimal points are not necessary. The ruled columns serve to separate cents from dollars.

LEARNING CHECK

☐ The equality of debits and credits posted to the ledger accounts is verified by preparing a trial balance.

☐ Even if total debits equal total credits, accounting errors may still exist.

☐ If the debit and credit totals do not agree, errors exist in the ledger accounts. Two errors called ***transpositions*** and ***slides*** may have occurred in the posting process.

☐ Errors in the general journal and general ledger must be corrected by crossing out the wrong entry and inserting the correct entry immediately above, to ensure that nothing is concealed.

☐ Some errors require a correcting journal entry.

APPENDIX

Introduction to the goods and services tax in Australia

A goods and services tax (GST) was introduced into Australia on 1 July 2000 as part of the Australian Government's tax reform package. The GST is a tax levied at the rate of 10% on the supply (sale) of most services and goods (referred to as 'taxable supplies' in the GST legislation). Businesses registered under the GST legislation collect the tax on behalf of the Australian Taxation Office (ATO), and remit the amounts collected to the ATO at regular intervals. With the GST comes the need to account for it in an entity's accounting records to enable the preparation of the necessary return, called a business activity statement (BAS), to be submitted to the ATO.

In order to avoid duplicating the GST at various levels of the production and supply chain, businesses are allowed to offset any GST they pay on buying services and goods ('creditable acquisitions' in the GST legislation) against the GST collected on supplies (services rendered or sales made). These offsets are referred to in the GST legislation as 'input credits'.

All supplies of services and goods are subject to GST unless they are non-taxable. There are two types of non-taxable supplies:

- 'GST-free' supplies
- 'input taxed' supplies.

GST-free supplies are services and goods that would normally attract GST but are exempted under the legislation, e.g. fresh food, educational courses, medical products and services, wages and salaries, capital contributions and withdrawals. If a supply is GST-free, then the supplier will not charge GST on the supply of services or goods to the consumer, but will still be able to claim an input tax credit for the GST paid on all things acquired to make the supply. If a supply is 'input taxed', then the supplier will not charge GST on the supply to the consumer, but will not be able to claim an input tax credit on the goods and services acquired in order to make the supply. Input taxed supplies include financial services such as bank fees and charges.

Non-current assets attract input tax credits when purchased, and GST when sold. The ATO requires separate reporting for non-current assets costing over $1000, and therefore a special note should be made of purchases and sales of these types of transactions.

A business with an annual turnover from supply of services or goods over $75 000 is required by law to register as a business responsible for collecting and remitting GST to the ATO. Such businesses are required to register with the ATO as a business and receive an eleven-digit Australian business number (ABN). This ABN is also the GST registration number. Currently, registered companies also require an Australian company number (ACN). These numbers must appear on all official documents (e.g. letterheads, invoices) relating to the business.

An ABN (and GST registration) is optional for businesses with annual turnover less than $75 000, but there are advantages in registering for an ABN. For example, an unregistered business cannot add GST to the services and goods it supplies, and without an ABN it cannot claim input credits for GST paid on acquisitions of services or goods.

Businesses with annual gross revenues less than $2 000 000 can choose to account for GST on either a cash or an accrual (invoice) basis. Businesses with annual gross revenues more than $2 000 000 must account for GST on the accrual (invoice) basis. Under the cash accounting system, GST payable are recorded at the time cash is received for supply of services and goods and GST receivable are recorded when cash is paid for services and goods. Under the accrual accounting system, GST payable and GST receivable are recorded when a tax invoice is issued/received (as in figure 3.1 on p. 75) or cash is received/paid, whichever event occurs first.

The GST in practice

To appreciate how the GST system of taxing the supply of services and goods (on 'taxable supplies') and allowing rebates ('input credits') for the GST receivables on the purchase of services and goods ('creditable acquisitions') works, consider the following example.

Example

In Australia, a steel merchant sells $2000 of steel to a furniture manufacturer. GST of 10% is charged, and the steel merchant must collect $200 GST from the furniture manufacturer, who is charged $2200 in total for the steel. The furniture manufacturer then uses the steel, along with other materials purchased from other suppliers and labour, to make furniture.

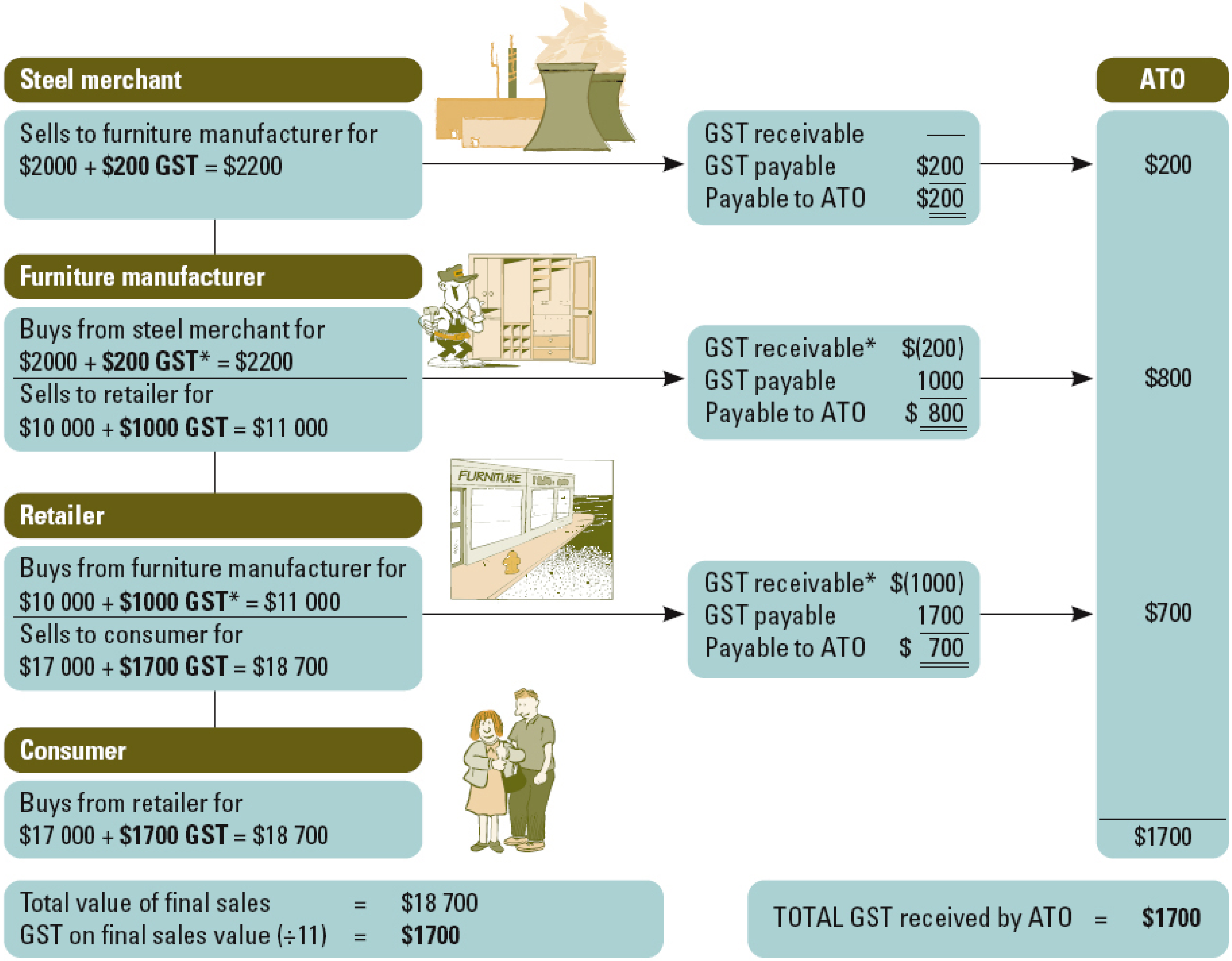
The manufacturer then sells the furniture to a retailer for $10 000, plus GST of $1000. Finally, the retailer sells the furniture to a consumer for $17 000, plus GST of $1700, making a total price of $18 700.

The final result of these transactions is as follows.

- The retailer (the end of the supply chain) collects $1700 from the customer on the taxable supply of furniture. This amount is payable by the retailer to the ATO, subject to any credits to which the retailer may be entitled.
- The retailer outlays $1000 for GST to the manufacturer on the manufacturer's taxable supply of furniture to the retailer. Since this represents a creditable acquisition, the retailer is entitled to claim an input tax credit of $1000 against the GST collected. This means that the retailer effectively pays no GST on the supply purchased from the manufacturer. In due course, the retailer has to pay $700 ($1700 – $1000) to the ATO.
- The manufacturer has collected $1000 GST from the retailer, but is entitled to claim a credit for the $200 outlay for GST to the steel merchant. The manufacturer is entitled to claim an input tax credit of $200, thus paying no GST on the supply of the steel purchased from the steel merchant. In due course, the manufacturer has to pay $800 ($1000 – $200) to the ATO.
- The steel merchant has collected $200 from the furniture manufacturer. If we assume that the steel merchant pays no GST on inputs to manufacture the steel, the steel supplier is not entitled to claim an input tax credit from the government. Thus the steel supplier has to pay the full $200 GST collected to the ATO.

The flow of GST amounts in the above example is illustrated in figure A3.1.

Figure A3.1 Flow of GST among entities and the ATO



Steel merchant

Sells to furniture manufacturer for
$2000 + **$200 GST** = $2200

GST receivable —
GST payable $200
Payable to ATO $200

Furniture manufacturer

Buys from steel merchant for
$2000 + **$200 GST*** = $2200
Sells to retailer for
$10 000 + **$1000 GST** = $11 000

GST receivable* $(200)
GST payable 1000
Payable to ATO $ 800

Retailer

Buys from furniture manufacturer for
$10 000 + **$1000 GST*** = $11 000
Sells to consumer for
$17 000 + **$1700 GST** = $18 700

GST receivable* $(1000)
GST payable 1700
Payable to ATO $ 700

Consumer

Buys from retailer for
$17 000 + **$1700 GST** = $18 700

ATO

$200
$800
$700
$1700

Total value of final sales = $18 700
GST on final sales value (÷11) = **$1700**

TOTAL GST received by ATO = **$1700**

*Input credit on creditable supplies

It is assumed in this figure that the only transactions that occur in the current tax period are those mentioned. Furthermore, as explained previously, instead of each entity paying the gross amount of GST on a supply to the ATO, the amount of GST receivable as an input tax credit is netted off against the amount of GST payable. This information is supplied to the ATO on the entity's BAS. For example, the manufacturer pays a net amount of $800 ($1000 – $200) to the ATO, and the retailer pays a net amount of $700 ($1700 – $1000) to the ATO.

Each entity is required by law to show separately the amount of GST payable by its customers on the entity's tax invoice or sales docket. Each entity then records the flow of GST through its accounting records by means of the GST Payable and GST Receivables accounts.

Accounting for the GST

GST legislation requires businesses registered for GST (whether using the cash or accrual basis of accounting) to organise their accounting system so that records are made of the GST collected/collectable on taxable supplies of services and goods, and the GST paid/payable on creditable acquisitions of services and goods. GST-registered businesses are also required to design source documents so that they include all the information required under the GST legislation. Note that for the purposes of the GST legislation, for supplies of goods and services over $82.50 (including GST), a 'tax invoice' must be supplied if requested. Such invoices must meet the legislative requirements of a tax invoice, that is, they must be labelled as such, and must show the ABN of the business issuing the invoice and the GST-inclusive price of the goods and services being sold. Commonly, tax invoices also show the amount of GST included in the price of the goods and services. Additional requirements must be met under certain conditions.

The amounts of GST payable and receivable must be reported to the ATO on either a monthly, quarterly or yearly basis (the ‘tax period’) depending on turnover. In February 2001, the Treasurer of the Australian Government announced some relief for businesses with an annual turnover of less than $2 000 000 in that they can provide a BAS to the ATO on an annual basis. Nevertheless, tax payments must still be made quarterly by these businesses. GST payable and receivable (input tax credits) along with other taxes such as tax instalments deducted from employee wages and salaries, and company tax instalments (if applicable) are reported on the BAS. The completed BAS and any payments due must be forwarded to the ATO usually within 28 days of the end of the tax period (monthly, quarterly or yearly as required). The amount of GST payable is equal to the GST payable less the GST receivable. In the event that GST receivable exceed the amount of GST payable during the tax period, the ATO makes a direct electronic debit to the bank account of the business for the difference.

Accounts for recording GST

In order to facilitate the completion of the BAS for each tax period, businesses must add at least two new accounts to the chart of accounts — one to record collections of GST, and one to record outlays on GST. A GST Payable account and a GST Receivable account are used in this book. (The names for such accounts have not been prescribed in the legislation or by the accounting profession, so other names could be used to suit the needs of the particular business.) Since the amount of GST collected by an entity generally exceeds the GST paid each tax period, the GST Payable account is classified normally as a current liability, with the GST Receivable account as a current asset. At the end of the tax period, balances in the GST Payable account and the GST Receivable account are offset in order to show either a net amount owing to or a net amount receivable from the ATO.

KEY TERMS

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DISCUSSION QUESTIONS

1. Indicate whether each of the following events is an internal transaction, an external transaction, or a non-transaction event. Explain your answer in each case.
  - **(a)** Receipt of money from a customer in payment of services to be provided early in the next accounting period.
  - **(b)** Equipment is used to provide a service for a customer.
  - **(c)** The human resources department provided services to the customer service department.
  - **(d)** A building owned by the business increased in value.
  - **(e)** Received payment from a customer on account for services provided in the previous accounting period.
  - **(f)** A prospective employee is interviewed and hired for a job.
  - **(g)** Stationery supplies are used by an employee.

2. The owner of a very small, part-time business is very disorganised and doesn't like filing invoices, accounts and receipts. 'What is the point of keeping all that paper work?', he asks. 'Once the details have been recorded in the accounting system why waste time and space filing everything?' Explain to the small business owner why it is important to keep supporting documentation and how such records are likely to be useful for future decision making and provide an example.

3. One often hears the statement: 'Debits are bad and credits are good for the business.' Do you agree? Why or why not?

4. Your friend is having difficulty grasping the rules of debits and credits. Using the idea that in some countries vehicles must travel on the left-hand side of the road while in others they must travel on the right-hand side of the road, explain the rules of debit and credit.

5. Why are journals required as part of the recording process? Would not a set of ledger accounts be sufficient?

6. Give an example of a transaction that results in:
  - **(a)** an increase in one asset and an increase in a liability
  - **(b)** a decrease in one asset but no change in the total assets
  - **(c)** an increase in one asset and an increase in equity
  - **(d)** a decrease in one asset and a decrease in a liability
  - **(e)** a decrease in one asset and a decrease in equity
  - **(f)** an increase in one asset, a decrease in another asset and an increase in one liability
  - **(g)** a decrease in equity and an increase in a liability.

7. Recently, a new student of accounting was overheard making the following remarks: 'Why are we learning how to use the double-entry system of recording in the accounting cycle? Surely there are good computer packages available these days which can handle all of these details.' Provide a suitable reply.

8. Explain the fact that errors can exist even though the sum of the debit account balances may equal the sum of the credit account balances in the trial balance.
9. Explain why when a business pays GST on the purchase of goods or services it records this as GST Receivable, an asset, and when a business provides goods or services which are taxable it records the GST component of the transaction as GST Payable, a liability.
10. The accountant of a goldmining company in Western Australia has to make a decision about whether to record an accounting transaction or not. The goldmining company discovered an extremely rich seam of gold as a result of exploration activities, 50 kilometres away from its already existing mines. This information, when released to the public, caused the share price of the company to jump considerably. What entries (if any) should the accountant make in the ledger of the company? Why?

EXERCISES

Exercise 3.1 IDENTIFYING ACCOUNT CATEGORIES LO 2

The following is a list of ledger account titles extracted from the general ledger of J. Wendall, marketing consultant:

Wages and Salaries
Interest
Cash at Bank
J. Wendall, Capital
Accounts Payable
Land (Under Mortgage)
Furniture
Accounts Receivable
Motor Vehicles
Rent
Mortgage Payable
Consultancy Fees
Investments
Computers
Inventory, Marketing Materials

Required

A. Identify each of the above ledger accounts as either an asset, a liability, an income or an expense account. If you think that any of the accounts might fit into more than one of these categories, explain why.

B. For each of the accounts listed above, indicate (1) whether increases are recorded as debits or credits and (2) whether the normal balance is a debit or a credit.

Exercise 3.2 TRANSACTION ANALYSIS LO 3

For each of the following transactions, indicate whether the accounts affected are an asset, a liability, an equity, an income or an expense. Also indicate whether the accounts are being increased or decreased and whether the increase or decrease is a debit or credit. Ignore GST.

Example: Paid for advertising.

Increase an expense (debit), decrease an asset (credit)

1. Owner gave their personal computer to the business.
2. Employed a secretary.
3. Cash payment made for insurance 6 months in advance.
4. Purchased supplies on credit.
5. Paid a creditor using an electronic transfer.
6. Invoiced a customer for services performed.
7. Owner paid for their personal groceries using the business credit card.
8. Paid some cash and took out a loan to purchase office furniture.
9. Received cash from a customer that owed the business money.
10. Paid for an advertisement aired on television.

Exercise 3.3 EFFECTS OF TRANSACTIONS ON FINANCIAL POSITION LO 3

The following transactions were undertaken by Massenburg Personnel Services during the month of February 2016. Ignore GST.

1. Invoiced a client for providing advice on current employment legislation, $2400.
2. Paid salaries to staff, $3600.

3. Paid an annual subscription for access to an online data base of employment legislation until the end of January 2017.
4. Received $6000 from a client for employing staff for them in January.
5. M. Massenburg invested a further $20 000 additional capital into the business to ensure it has sufficient cash to continue operations.
6. Purchased new office furniture and equipment on credit for $12 500.
7. Invoiced a client for $7000 for providing advice regarding an industrial dispute they had with their employees.
8. Paid $720 electricity account the day the account was received.
9. Paid the firm's lawyers for an account received from them in December for receiving legal advice, $7100.
10. 10. Paid for the equipment purchased in (6).
11. M. Massenburg withdrew $1200 from the business bank account for personal use.

Required

Indicate with the appropriate letter whether each of the above transactions resulted in:

(a) an increase in assets and a decrease in assets
(b) an increase in assets and an increase in liabilities
(c) an increase in assets and an increase in equity
(d) a decrease in assets and a decrease in liabilities
(e) a decrease in assets and a decrease in equity
(f) an increase in liabilities and a decrease in equity
(g) an increase in equity and a decrease in liabilities.

Exercise 3.4 NORMAL BALANCE AND CLASSIFICATION IN FINANCIAL STATEMENTS LO 2

The accounts below appear in the chart of accounts of Brightspark Electrical Services. Show whether the normal balance is a debit or a credit. Indicate whether the account would appear in the balance sheet or in the income statement, and under what classification, e.g. liability, asset, equity, income or expense.

1. Service Vehicles
2. Repairs Expense
3. Prepaid Insurance
4. Accounts Payable
5. Unearned Service Fees
6. Telephone Expense
7. Accounts Receivable
8. Electrical Supplies
9. B.A. Brightspark, Drawings
10. GST Payable
11. GST Receivable
12. Mortgage Payable
13. Interest Revenu
14. B. A. Brightspark, Capital
15. Electrical Services Revenue

Exercise 3.5 RECORDING TRANSACTIONS IN GENERAL JOURNAL AND ANALYSIS LO 3, 4

The chart of accounts of Pellham Poster Printers contained the following accounts: Cash at Bank; Accounts Receivable; Equipment; Accounts Payable; K. Pellham, Drawings; Printing Fees; Salaries Expense and Advertising Expense. Ignore GST.

The following transactions occurred during the month of June:

June 1 K. Pellham withdrew $850 cash for personal use.
5 Purchased new equipment for $5000. Paid $500 deposit with the balance to be paid within 60 days.
9 Paid for advertising in the local newspaper, $510.
14 Paid $320 to creditors for office supplies that had been purchased on credit in the previous month.
18 Paid salaries of $970.
22 Received $500 from customers to reduce their account balances.
30 $12 000 in printing fees were due during the month. Of this, 20% of the fees were collected in cash and 80% will be paid within 60 days.

Required

A. Prepare the general journal entries to record the above transactions.
B. For each transaction above, prepare an analysis similar to that shown in the illustrative example in the chapter (p. 91).

Exercise 3.6 ACCOUNT TITLES AND TYPE

LO 2

Each of the following items describes aspects of the business of Lenny Linnehan, lawyer:

1. cash which Lenny Linnehan has withdrawn from the business for personal use
2. photocopiers, document binding machine and computers
3. amounts owing by the business to suppliers of an online legal database
4. amounts owing by customers for cases completed
5. tables, wall shelving and book cabinets for staff offices
6. GST charged to clients for legal services
7. money borrowed from a bank
8. lease rental on premises which should have been paid 1 month ago
9. supplies held for future document preparation
10. insurance premium paid in advance to cover the next 6 months.

Required

A. Suggest an account title for each item described above.
B. Classify the item as an asset, liability, equity, income or expense.

Exercise 3.7 CHART OF ACCOUNTS, POSTING TO T ACCOUNTS, AND TRIAL BALANCE

LO 2, 4, 5

The general journal of Lenore Grunweld, Property Adviser, contained the entries below for the month of July 2016. GST is ignored.

General Journal

Date	Particulars	Post Ref	Debit	Credit
2016				
July 1	Cash at Bank		150 000	
	Lenore Grunweld, Capital			150 000
	(Cash invested by owner)			
9	Cash at Bank		15 000	
	Service Fees Revenue			15 000
	(Fees for services performed)			
16	Office Equipment		32 000	
	Cash at Bank			3 200
	Accounts Payable			28 800
	(Office equipment for cash and on credit)			
22	Service Fees Receivable		25 000	
	Service Fees Revenue			25 000
	(Services performed on credit)			
31	Cash at Bank		10 000	
	Service Fees Receivable			10 000
	(Cash received from client)			

Required

A. Post the transactions to T accounts. The chart of accounts for the business included the following accounts:

Cash at Bank	1–100
Service Fees Receivable	1–200
Office Equipment	1–300
Accounts Payable	2–100
Lenore Grunweld, Capital	3–100
Service Fees Revenue	4–100

B. Prepare a trial balance of the general ledger of Lenore Grunweld, Property Adviser, as at 31 July 2016.

Exercise 3.8 RECORDING TRANSACTIONS IN GENERAL JOURNAL AND ANALYSIS LO 4

The following accounts appear in the ledger of the Henrietta's Huge Hair Hairdressers: Cash at Bank; Accounts Receivable; Hairdressing Equipment; Accounts Payable; Henrietta Bouffant, Drawings; Hairdressing Revenue; Salaries Expense; and Advertising Expense.

Required

A. Prepare the general journal entries to record the following transactions that occurred during December (ignore GST).

B. Explain why you have made each of the journal entries to account for the transactions.

Dec. 1 Purchased hair drying equipment for $65 000. Paid $5000 deposit and agreed to pay the balance in

60 days.

3 Henrietta withdrew $1200 from the business to buy herself a new dress for a friend's wedding.

8 Paid salaries of $6800.

14 Paid $800 for advertisements in the local newspaper.

19 Received $540 from customers to reduce the balance in their accounts.

23 Paid $3700 to creditors for supplies that had been purchased on credit.

30 Earned $57 600 in hairdressing revenue during the month. Of these, 80% of the fees were collected in cash and 20% will be paid within a month.

Exercise 3.9 RECORDING TRANSACTIONS IN GENERAL JOURNAL AND ANALYSIS LO 4

The following information relates to the business of Man Ting's Travel Agency for the month of June 2016:

June 1 Man Ting Lau invested $120 000 cash into the new business.

2 The business set up an office by purchasing some office equipment for $36 000 cash.

3 Man Ting hired an assistant to deal with customers for an annual salary of $42 000, payable in monthly amounts.

6 The assistant books a holiday to Europe for a client, Wing Ho, for a total cost of $16 000 (unpaid at this stage). The commission to be kept by the business is 10% of the total cost of the trip when Wing Ho pays in full.

15 Wing Ho pays $10 000 to Man Ting's Travel Agency. Of this amount, $4200 represents the total cost of air fares, which will be forwarded to the airline concerned; and the remainder (excluding the travel agency's commission) is to be forwarded to a particular hotel chain to cover the client's accommodation.

22 The business pays cash to the airline as payment for Wing Ho's trip.

25 The appropriate amount of cash is paid to the hotel chain for Wing Ho’s trip.

30 The assistant is paid 1 month’s wages in cash.

Required

A. Prepare general journal entries to record the above events, as appropriate, in the accounting records of Man Ting’s Travel Agency. Ignore GST.
B. Explain why you have made each entry by providing analyses similar to those shown in the illustrative example in the chapter (p. 91).

Exercise 3.10 RECORDING TRANSACTIONS IN GENERAL JOURNAL AND GENERAL LEDGER **LO 3, 4**

In December 2016, the following transactions occurred in Macchiato’s Coffee Roasters business that supplies cafés and also sells direct to the public:

Dec. 2 Michael Macchiato invested $2 650 000 into the business of Macchiato’s Coffee Roasters by purchasing a fully equipped coffee roasting business. The business acquired consisted of the following assets and liabilities:

Land	$1 200 000
Building	1 000 000
Coffee roasting equipment	420 000
Office equipment	60 000
Accounts payable	30 000

5 Purchased some new roasting equipment on credit for $160 000.

6 Collected cash from customers for the month, $220 000.

12 Paid the accounts payable owing on 2 December when Michael purchased the business.

14 Purchased an insurance policy for the year for $6000 cash.

18 Purchased television advertising for the Christmas — New Year period for $8000 to be paid for in 30 days.

23 Collected fees in cash from customers for the Christmas — New Year period, amounting to $46 000.

30 Michael withdrew $8000 cash in order to pay for private Christmas

presents and parties.

Required

A. Prepare general journal entries for each of the above transactions and events.
B. Post the entries to ledger T accounts and balance the accounts as at 31 December 2016.

Exercise 3.11 ANALYSING LEDGER ACCOUNTS LO 4

Kelly's Cleaning Services T accounts for 30 April 2017 were as follows:

Cash at Bank

2/4	80 000	5/4	17 000
		9/4	8 000
		10/4	12 000

Vehicle

10/4	60 000		

Cleaning Supplies

9/4	8 000		

Cleaning Equipment

5/4	17 000		

Loan Payable

		10/4	48 000

Chris Kelly, Capital

		2/4	80 000

Required

Analyse the above accounts and describe in chronological order the transactions that have been recorded.

Exercise 3.12 IDENTIFYING AND EXPLAINING ERRORS LO 5

When processing the accounts for Ellise's Electrical Contractors, the following errors were made.

(a) Electrical equipment purchased for $7800 cash was debited to Equipment and credited to Accounts Payable for an incorrect amount of $8700.

(b) Collection of an account receivable for $4500 was recorded by a debit to Cash at Bank and a debit to the equity account of the owner.

(c) A cheque for $6000 issued to pay for an account payable was recorded as a debit to Accounts Payable and a credit to Accounts Receivable for $6000.

(d) A $2100 payment for assorted electrical tools was recorded as a debit to Equipment and a credit to Cash at Bank for $210.

(e) Cash of $2000 withdrawn by the owner from the business was debited to Salaries Expense and credited to Cash at Bank.

Required

A. Identify which of the above errors would cause unequal totals in a trial balance prepared at the end of the period.
B. Write a brief explanation for each error to indicate how it could be fixed in the accounting records.

Exercise 3.13 PREPARATION OF CORRECTED TRIAL BALANCE LO 5

Nigel's Gardening Services trial balance presented below does not balance. In examining the general journal and the general ledger you discover the following information. Ignore GST.

- The balance in the Mortgage Payable account is $5400.
- A purchase of lawnmower fuel for cash of $180 was erroneously recorded as a purchase on credit.
- The debits and credits to Accounts Receivable totalled $7600 and $5400 respectively.
- A $550 payment for salaries was not posted to the Cash at Bank account.
- The debit to record a withdrawal of $600 in cash by the owner was not posted.

NIGEL’S GARDENING SERVICES
Trial Balance
as at 30 June 2016

Account	Debit	Credit
Cash at bank	$ 2 400	
Accounts receivable	530	
Supplies	8 200	
Equipment	420	
Accounts payable		$ 2 160
Salaries payable		2 980
Mortgage payable		4 500
Nigel Mower, Capital		6 400
Nigel Mower, Drawings	6 220	
Service revenue		13 800
Salaries expense	5 100	
Rent expense	3 200	
Other expense	2 950	
	$28 370	29 020

Required

Prepare a corrected trial balance.

Exercise 3.14 EFFECT OF ERRORS ON TRIAL BALANCE LO 5

A. For each of the following errors:
- **(a)** indicate whether the error would cause the trial balance to have unequal totals
- **(b)** determine the amount by which the trial balance totals would differ
- **(c)** determine whether the error would cause the debit total or the credit total to be larger. Ignore GST.
  1. A $280 credit to Service Revenue was not posted.
  2. Receipt of a payment on account from a customer was recorded as a debit to Cash at Bank for $125 and a credit to Accounts Payable for $125.
  3. A purchase of supplies for $57 was recorded as a debit to Supplies for $57 and a credit to Accounts Payable for $75.
  4. A $33 debit to Cash at Bank was posted as a credit.
  5. A $250 debit to the Drawings account was debited to the Capital account.
  6. A $520 debit to Rent Expense was posted as a $52 debit.

B. How would each error be corrected? Give the correcting journal entry where appropriate.

PROBLEMS

Basic
Moderate
Challenging

Problem 3.1 IDENTIFYING TYPE OF ACCOUNT, DEBIT/CREDIT ANALYSIS AND NORMAL BALANCE LO 2

Tsz Yeung Printers’ ledger accounts are listed below.

1. Accounts Payable
2. Accounts Receivable
3. Buildings
4. Cash at Bank
5. Electricity Account Payable
6. GST Payable
7. GST Receivable
8. Insurance Expense
9. Interest Expense
10. Interest Receivable
11. Interest Revenue
12. Land
13. Loan Payable
14. Mortgage Payable
15. Prepaid Insurance
16. Printing Equipment
17. Rent Revenue
18. Service Fee Revenue
19. Sundry Revenue
20. Supplies on Hand
21. Supplies Used
22. Tsz Yeung, Capital
23. Tsz Yeung, Drawings
24. Unearned Revenue
25. Wages Expense
26. Wages Payable

Required

A. For each account listed above, complete a solution form as shown below by placing a tick in the proper columns to indicate the type of account, the side of a T account on which increases are recorded, and the side on which normal balances are recorded.

Suggested solution form:

	Type of account			Increases		Normal balance	
Account	**Asset**	**Liability**	**Equity (includes income and expenses)**	**Debit**	**Credit**	**Debit**	**Credit**
1. Cash at Bank	✓			✓		✓	
(List remaining 25 accounts.)							

B. Prepare an appropriate chart of accounts for the business. Use the following digits for account classes: assets, 1; liabilities, 2; equity, 3; income, 4; expenses, 5. Within each category, assign a 3-digit code for each account.

Problem 3.2 JOURNAL ENTRIES, POSTING TO LEDGER, AND TRIAL BALANCE LO 3, 4, 5

On 1 July 2015 Nicole Andreou opened a beauty parlour. The following transactions occurred during the first month of operations (ignore GST):

June 2 Andreou invested $120 000 in the business by depositing cash into a business cheque account with the Eastpac Bank.

2 Paid $1800 for the first month’s rent.

3 Purchased equipment by an online bank transfer for $32 000 and signing a commercial loan agreement for $38 000.

4 Purchased supplies for $8400.

6 Paid advertising expense of $890.

16 Recorded beauty services revenue for the first half of the month of $3250 in cash and $620 on credit.

20 Paid insurance expense for July of $480 using an online bank transfer.

23 Received a $140 payment from customers who paid on credit in the first half of the month.

---

28 Andreou withdrew $560 cash for personal living expenses.

31 Recorded revenue for the second half of the month of $3680 in cash and $580 on credit.

31 Paid telephone account of $330 by electronic transfer.

Use the following account titles and numbers: Cash at Bank, 100; Accounts Receivable, 101; Supplies, 102; Equipment, 103; Loan Payable, 200; Nicole Andreou, Capital, 300; Nicole Andreou, Drawings, 301; Revenue, 400; Rent Expense, 500; Advertising Expense, 501; Insurance Expense, 502; Telephone Expense, 503.

Required

A. Prepare the general journal entries to record the transactions.
B. Post the entries from the general journal to the general ledger accounts (running balance format) and enter the posting references in the general journal.
C. Prepare a trial balance as at 31 July 2015.

Problem 3.3 PREPARING GENERAL LEDGER AND TRIAL BALANCE LO 3, 5

Carrying Your Load provides heavy freight services with large trucks. The following transactions were for Carrying Your Load. Ignore GST.

June 1 Craig Dienhoff invested $620 000 into Carrying Your Load organised to provide trucking services to remote parts of Australia.

2 Purchased a truck for $540 000 on credit from P. Strickland.

4 Transferred the amount owing to P. Strickland using online banking facilities to make a direct bank

transfer.

5 Paid $1600 to R. Burton for two weeks rent to 14 July.

9 Charged White Cattle Station $12 000 for trucking services.

10 Dienhoff withdrew $4000 cash to meet personal expenses.

12 Paid $1200 for advertising on local radio.

12 Received $6200 from Outback Oil for trucking services.

13 Charged Star Company $9600 and received $9000 from Hardie Company for trucking services provided.

14 Received a cheque for $12 000 from White Cattle Station and deposited it into the business bank account. Paid $8800 for fuel for the truck.

Required

A. Record all transactions directly into ledger T accounts and prepare a trial balance.
B. Repeat requirement A, assuming that a GST of 10% needs to be added for all appropriate transactions.

Problem 3.4 PREPARING THE GENERAL JOURNAL **LO 4**

The Arid Sands Golf Club was opened for business on 1 July by Todd Simpson. The following selected events and transactions occurred during the first month of operations:

June 1 The owner invested $2 500 000 cash into the business.

3 Acquired the business of Jeffrey’s Golf World for $1 800 000 cash. The price consisted of land $1 000 000, building $650 000, and equipment $150 000.

6 Advertised the opening of the golf course, paying advertising expenses of $36 000 for a major television campaign.

10 Paid cash $36 000 for a 1-year insurance policy.

18 Purchased new golfing equipment for $60 000 from Rory Golfing, payable in 30 days.

19 Received golf membership fees of $22 000 in cash.

25 Sold 200 coupon books for $400 each. Every book contains 10 coupons each of which entitles the holder to one round of golf.

27 Simpson withdrew $10 000 cash for personal use.

29 Paid wages of $12 600.

30 Paid Rory Golfing in full.

31 Received $12 000 cash for golf fees.

Required

Prepare general journal entries for the month of July, using appropriate account titles. Ignore GST.

Problem 3.5 JOURNAL ENTRIES, ENTERING BEGINNING ACCOUNT BALANCES, POSTING TO T ACCOUNTS, AND TRIAL BALANCE

LO 4

The 31 May 2017 trial balance of Amy Wait, Physiotherapist, is shown below. Ignore GST.

AMY WAIT, PHYSIOTHERAPIST
Trial Balance
as at 31 May 2017

Account	Debit	Credit
Cash at bank	$ 105 000	
Accounts receivable	48 000	
Supplies	12 300	
Prepaid insurance	8 200	
Furniture and equipment	260 600	
Accounts payable		$ 9 700
Electricity account payable		9 500
Unearned revenue		2 900
A. Wait, Capital		314 960
A. Wait, Drawings	161 200	
Services revenue		462 000
Salaries expense	170 300	
Electricity expense	9 460	
Rent expense	24 000	
	$799 060	$799 060

The following transactions were completed during June:

June 1 Purchased supplies on credit for $5800.

3 Received $24 400 from patients as payment on account.

6 Paid the electricity expense of $9500, previously recorded.

10 Performed services for $2000 that was recorded previously as unearned revenue.

14 Recorded revenue of $178 600 in cash and $13 650 on credit. Paid salaries of $65 880.

20 Purchased furniture for $15 400 and paid by electronic transfer.

23 Withdrew $60 000 from the business for personal use.

24 Paid creditors $7000.

26 Purchased insurance policy for $24 000 to cover business assets.

27 Received $12 000 from patients as payment on account.

29 Recorded revenue of $124 600 in cash and $25 000 on credit.

30 Paid rent of $24 000.

Required

A. Prepare journal entries to record each transaction.
B. 1. Open T accounts for the accounts shown in the trial balance.
   2. Enter the 31 May balance in each account.
   3. Post the journal entries to the T accounts.
C. Prepare a trial balance as at 30 June 2017.

Problem 3.6 JOURNAL ENTRIES FOR TWO CONSECUTIVE MONTHS **LO 1, 4**

Roger's Repair Services had the following transactions during April and May 2016:

April 1 Cash is received from a customer, D. Lloyd, $8200.
7 Repair services are provided on credit to J. Turner for $12 000.
8 A bill for electricity consumed is received, $720.
11 Supplies are requisitioned from storage for use in the general office, $280.

15 A $50 000 loan is taken out with BCSA Bank. Interest is payable at 10% p.a.
18 A cheque is issued in payment of the electricity account received on 8 April.
23 Supplies are purchased on account from Harry's Hardware, $860.
25 Supplies are requisitioned for use in the office, $360.
30 Prepaid insurance costs have been used to the extent of $300.
May 2 Owner contributes capital of $20 000, by an additional injection of cash.
2 Rent for the month is paid by cheque, $2200.
5 Repair equipment is purchased on account from Orange Suppliers, $16 000.
12 Office fixtures are purchased from OfficeShop for $6000. $500 is paid immediately with cash, the remainder is due in July.
13 Repair services performed for clients for cash, $7800.
14 Payment on account is made by cheque to Trade Suppliers, $22 000.
19 A salary of $4200 is paid by electronic bank transfer.
31 Insurance expired, $300.

Required

A. Assuming that the accounting period is a calendar year, prepare general journal entries for Roger's Repair Services during April and May 2017. Ignore GST.
B. At the end of May, interest is owing on the loan taken out on 15 April with BCSA Bank. Should this interest be recorded by Roger's Repair Services in its accounting records? Why or why not?

Problem 3.7 PREPARATION OF RUNNING BALANCE LEDGER ACCOUNTS AND TRIAL BALANCE

LO 3, 5

On 1 March 2014, James Taylor decided to open Taylor's Tailormade that makes suits, trousers and jackets and repairs and alters clothes. He contributed for this purpose sewing equipment $46 000 and a commercial van $48 000, and deposited $10 000 cash in a business bank account. Transactions during March were as follows (ignore GST):

March 4 Took a 3-year lease on a shop and paid first month's rent $1200.
4 Purchased haberdashery supplies for $4200, and paid with an electronic transfer of $1200 and paid for the rest with credit.
6 Cash received for minor clothing repairs, $120. Revenue earned for tailor making a two piece suit for Andrea Fraser on credit, $840.
7 Purchased a sewing machine, $3800, paying $800 cash and taking out a loan for the balance.
8 Cash revenue earned, $1260.
11 Engaged a sewer at an agreed wage of $1100 per week.
12 Paid petrol $120, postage $20, and electricity bill $760.
13 Cash of $200 received for over-the-counter repairs. Revenue of $1500 earned from a customer on credit.
14 Paid for haberdashery supplies purchased on credit on 4 March.
15 Withdrew $600 for own use.
16 Cash revenue received, $380.
17 Haberdashery supplies purchased for $500 on credit.
18 Paid wages to employee.
21 Revenue earned for making clothes: cash $240; on account $1200.
23 Andrea Fraser paid the bill for

services rendered on 6 March.

24 Petrol expenses paid $80.

25 Paid weekly wages to employee.

28 Revenue earned for clothes $2420, receiving $200 in cash and the remainder on credit.

31 Haberdashery supplies used, $620.

Required

A. Prepare three-column running balance ledger accounts. Give each account a suitable account number.

B. Prepare a trial balance as at 31 March 2016.

Problem 3.8 POLICY DECISION, ANALYSIS AND CHART OF ACCOUNTS **LO 2, 5**

Lewis Edwards decides to branch out on his own and set up his own private practice as an accountant. Events occurring in March 2016 are as follows. Ignore GST.

March 1 Deposited $500 000 into a business bank account, set up under the business name of Lewis Edwards, Accountant.

2 Hired an office secretary who commenced work immediately.

3 Paid $6200 for the first month's rent of a suitable office.

4 Purchased office equipment and furniture for a total of $43 800. An initial $3800 is paid in cash immediately and the rest is to be paid in 3 months' time, with interest payable at 10% p.a.

7 Paid $1800 for a 1-year insurance policy on the office equipment, effective from 1 March 2016.

8 Paid $2600 in cash for office supplies.

12 Sent invoices to a number of clients for services rendered for a total amount of $14 000.

14 Edwards withdrew $1200 cash from the business for personal use. Paid the office secretary $1300 for services rendered to the business.

19 Received $8000 in cash from clients billed on 12 March.

24 Received $16 000 in cash from clients who paid immediately

for services rendered. These clients were not invoiced previously.

31 Paid $8000 for sundry expenses and wages of $1300 to the office secretary for the previous fortnight's work.

Required

A. After analysing the events above, suggest a chart of accounts, with appropriate numbering, that would be satisfactory for the business. Explain why you have used particular numbering in the chart of accounts.

B. Prepare general journal entries as necessary for each of the events, using the chart of accounts that you have created.

C. Explain why you have made these journal entries by an analysis similar to that shown in the illustrative example in the chapter (p. 91).

Problem 3.9 JOURNAL ENTRIES, T ACCOUNTS AND ANALYSIS **LO 3, 4, 5**

On 1 April 2015, Kenny's Equipment Hire opened for operations. Kenny Kowslowski contributed the capital of the business of $720 000 cash. He has asked you to be record-keeper for the business on a part-time basis, and you initially establish the need for the following accounts (and numbers). Additional accounts may need to be added in the near future. GST is ignored.

Cash at Bank	100
Accounts Receivable	110
Land	120
Building	130
Motor Vehicles	150
Hire Equipment	170
Accounts Payable	220
Mortgage Payable	250
Kenny Kowslowski, Capital	300
Kenny Kowslowski, Drawings	310
Equipment Hire Income	320

During April the following transactions were undertaken by the business, including the initial investment by the owner:

April 1 Kenny Kowslowski contributed $720 000 to the business.

2 The business acquired land for $300 000 and a building on the land for $160 000. A cash payment of $100 000 was made and a mortgage loan with the Bank of Australia was arranged for the balance owing.

4 Purchased gardening, maintenance and repair equipment to hire out to customers for $450 000 from General Equipment Manufacturers. The business paid $200 000 cash, and the remainder was due to be paid in

30 days.

7 A garden mulcher was transferred from the business to the owner, Kenny Kowslowski, for cost price of $2500.

10 A trailer was found to be defective, and the business returned it to General Equipment Manufacturers. The amount due to the creditor was reduced by $12 000.

13 The business acquired some computer equipment for the main office at a total cost of $8200, paid in cash.

28 Equipment hire income of $21 600 was received in cash.

29 Paid the remaining cash owing to General Equipment Manufacturers.

30 The business paid wages of $2200 to you for keeping the accounts.
Equipment hire income of $14 400 was received in cash and an additional $6000 remained owing by clients.

Required

A. Prepare general journal entries for the business for the month of April.
B. Post these entries to appropriate T accounts and determine their balances.
C. Provide an analysis of each transaction to explain each entry you have made in A above (see the illustrative example on page 91).

Problem 3.10 PREPARATION OF TRIAL BALANCE, BALANCE SHEET AND REPORT TO THE OWNER LO 1, 2, 5

Peter’s Personal Training Service had been in business for several years. In June 2016, as a result of a dispute with the owner, the accountant of the business disappeared and took all the records with her.

You have been hired to reconstruct the accounting records, and with this in mind, you conduct a stocktake of all of the assets of the business. By checking with banks, counting the office equipment and supplies, and investigating the ownership of the buildings and equipment, you develop the following information as at 30 June 2016:

Account title	**Balance**
Land	$ 90 000
Office Equipment	145 000
Buildings	172 000
Accounts Receivable	57 500
Investments	30 000
Office Supplies	80 000
Cash at Bank	320 000

Statements from creditors and unpaid invoices found in the office indicate that $230 000 is owing to trade creditors. There is also $60 000 owing under a 30-year mortgage with the bank. The owner, Peter Piper, has told you that he had contributed $150 000 cash to the business when it was established and that no further contributions had been made. There is no record of how much total profit(losses) had been earned in past years.

Required

A. Prepare a trial balance and balance sheet as at 30 June 2016 for the business.
B. Write a report to the owner suggesting a simple accounting system that could be used in future and why you recommend such a system.

Problem 3.11 JOURNAL ENTRIES, POSTING TO RUNNING BALANCE LEDGER ACCOUNTS, AND TRIAL BALANCE FOR 2 CONSECUTIVE MONTHS

LO 3, 4, 5

In December 2016, Mike Mills opened a miniature golf course to cater for the summer holiday tourists and completed the transactions below during its first month of operations. For the sake of simplicity, GST is ignored.

Dec. 1 Invested $90 000 capital in the business.
2 Purchased golf clubs and balls and other equipment costing $80 000 for $40 000 cash and a loan for $40 000.
4 Paid $1500 for advertising.
6 Purchased supplies on credit for $6200.
15 Recorded cash revenue for the first half of the month of $8400.
24 Withdrew $720 from the business bank account for personal use.
31 Recorded cash revenue for the second half of the month of $10 100.
31 Paid wages of $2700.
31 Paid rent for December, $2400.

Use the following account titles and numbers:

Cash at Bank, 1–100
Supplies, 1–110
Equipment, 1–120
Accounts Payable, 2–100
Loan Payable, 2–110
M. Mills, Capital, 3–100
M. Mills, Drawings, 3–110
Revenue, 4–100
Rent Expense, 5–100
Advertising Expense, 5–110
Wages Expense, 5–120

Required

A. Prepare general journal entries to record the December transactions.
B. Post the entries from the general journal to running balance general ledger accounts and enter the posting references in the journal.

C. Prepare a trial balance as at 31 December 2016.

The following transactions took place in January:

Jan.	4	Paid $1800 of the amount owed for supplies.
	8	Paid $820 for advertisements in local newspaper.
	13	Mike withdrew $1000 from the business for personal use.
	14	Recorded cash revenue for the first half of January of $7800.
	15	Paid wages of $2400 in cash.
	21	Purchased supplies on credit for $3100.
	31	Recorded cash revenue for the second half of January of $9400.
	31	Paid rent for January, $2400.

Required

D. Prepare journal entries to record the January transactions.
E. Post the entries to the ledger.
F. Prepare a trial balance as at 31 January 2017.

Problem 3.12 JOURNAL ENTRIES, POSTING TO RUNNING BALANCE LEDGER ACCOUNTS, AND TRIAL BALANCE FOR 2 CONSECUTIVE MONTHS, INCLUDING GST

LO 3, ,4 5

Using the data in problem 3.11, complete requirements A to F assuming the addition of GST of 10% where appropriate. Round your answers to the nearest dollar. Assume that, for the transaction on 2 December, the loan agreement remains at $40 000. Add two new accounts: GST Receivable 1–105 and GST Payable 2–150.

Problem 3.13 JOURNAL ENTRIES, POSTING TO RUNNING BALANCE LEDGER ACCOUNTS, AND TRIAL BALANCE

LO 3, ,4 5

In September 2016, Niem Duong opened a car hire business. The following transactions occurred during the first month of the business (ignore GST).

Sep.	1	Niem opened a bank account to begin the business and deposited $500 000 of her own money.
	3	Paid $1200 rent for the premises for September.
	4	Purchased ten motor vehicles costing $40 000 each and equipment costing $36 000 with $300 000 cash and a commercial loan for the balance.
	5	Purchased supplies costing $12 500 on credit.
	15	Recorded revenue for the first half of the month of $14 600 in cash and $28 500 on credit.

18 Paid for supplies purchased on 5 September.

19 Paid insurance expense for September of $5000.

24 Received payment from customers on account of $12 400 and banked the receipts.

27 Purchased supplies costing $6200 on credit.

29 Recorded revenue for the second half of the month of $12 500 in cash and $32 800 on credit.

30 Paid fuel expense of $16 200 in cash.

Use the following account titles and numbers:

Cash at Bank, 1–101
Accounts Receivable, 1–102
Supplies, 1–110
Equipment, 1–120
Motor Vehicles, 1–130
Accounts Payable, 2–101
Loan Payable, 2–110
N. Duong, Capital, 3–101
Revenue, 4–101
Rent Expense, 5–110
Insurance Expense, 5–120
Fuel Expense, 5–130

Required

A. Journalise the above transactions.
B. Post the entries from the general journal to running balance general ledger accounts and enter the posting references in the general journal.
C. Prepare a trial balance as at 30 September 2016.
D. Repeat requirements A to C, adding a GST of 10% where necessary. Add two extra accounts:

GST Receivable, 1–105
GST Payable, 2–150

Also assume the following:

1. The cash paid 4 September was for $343 600.
2. The receipt on 24 September was for $13 640.

Problem 3.14 CORRECTION OF ERRORS

LO 5

Your first assignment on your new job was to determine why the 31 December 2015 trial balance did not balance. In your review of the records you uncovered a number of errors described below.

1. The Sundry Expense account with a balance of $245 was omitted from the trial balance.
2. A payment of $890 on the electricity account payable was not posted to the Electricity Account Payable account, but was posted correctly to the Cash at Bank account.
3. A $2587 debit to Cash at Bank was posted as $2857.
4. A $360 credit was credited to the Accounts Receivable account but should have been made to the Services Revenue account instead.
5. A cash receipt of $480 from customers in settlement of their accounts was posted twice to the Cash at Bank account and the Accounts Receivable account.

6. The Accounts Payable account balance of $36 700 was listed in the trial balance as $37 600.
7. A $2560 credit to Services Revenue was posted as a $256 credit. The debit to Cash at Bank was for the correct amount.
8. A purchase of office supplies for $350 on credit was not recorded.
9. A purchase of a delivery truck for $125 000 using a loan was posted as a debit to the Loan Payable account and a debit to the Equipment account.
10. The Drawings account balance of $16 000 was listed as a credit balance in the trial balance.
11. A $1300 payment to employees for their weekly salaries was credited to Cash at Bank only once but was posted twice to the Wages Expense account.

Required

A. Indicate in the solution format shown below how each error would affect the trial balance totals. If the error does not cause the trial balance to be out of balance and you tick ‘no’ in the third column, write ‘equal’ in the ‘Difference between trial balance totals’ column. Each error is to be considered independently of the others.

Error	Would the error cause the trial balance to be out of balance?		Difference between trial balance totals ($)	Column having largest total	
	Yes	No		Debit	Credit
1.					
2.					
etc.					
to					
11.					

B. Prepare the journal entries necessary to correct errors number 4, 5 and 8 as listed above.

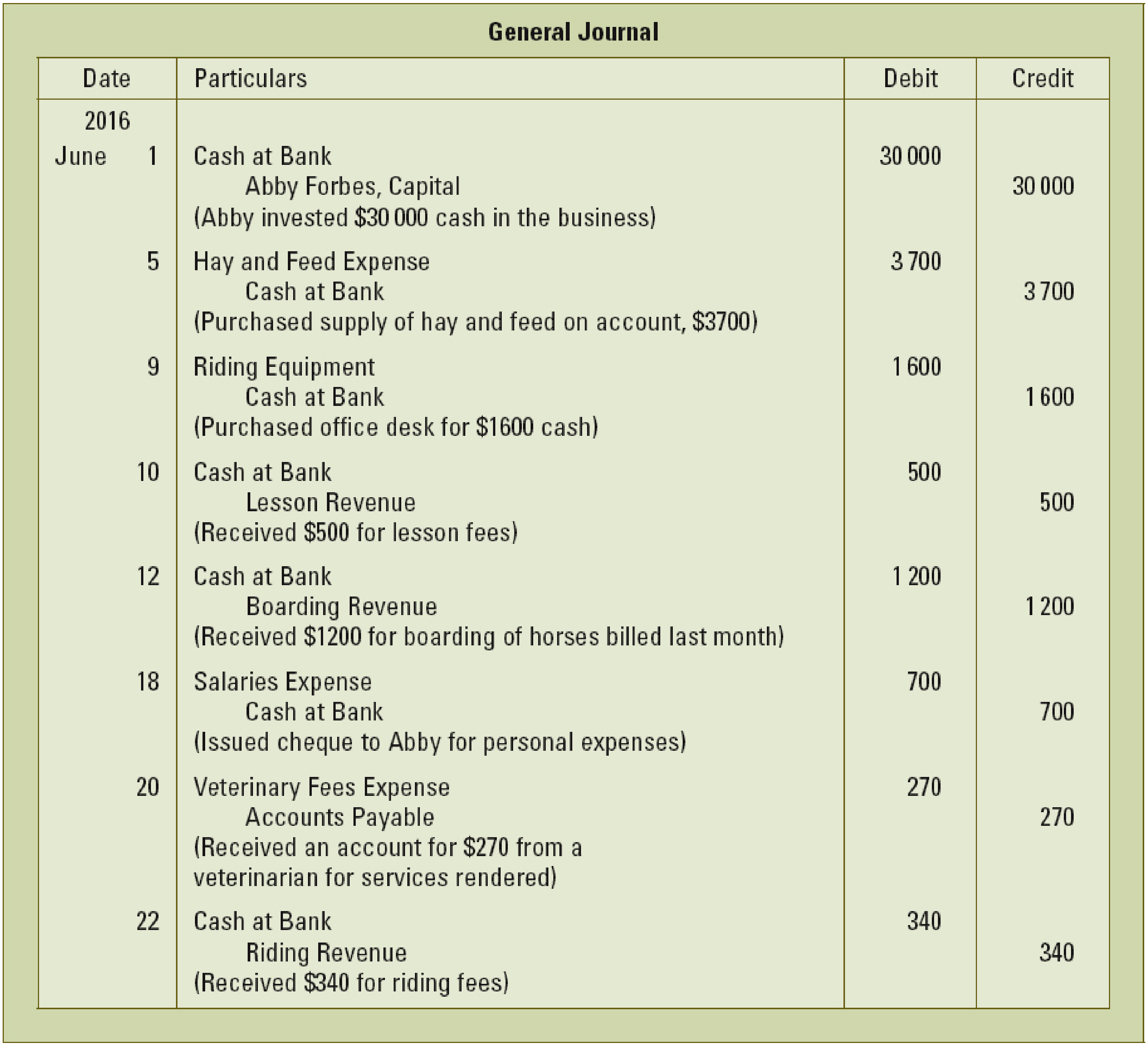
DECISION ANALYSIS

Abby’s Pony Club

Abby Forbes owns and operates Abby’s Pony Club. The club’s main sources of income are riding fees and lesson fees, which are paid on a cash basis. In addition, the club boards a limited number of horses for owners, who are charged monthly for the boarding fees. The club owns six horses, a small riding yard, riding equipment and office equipment. The club employs several stable hands and an office employee, who receive weekly salaries. At the end of the month, accounts are received for advertising, electricity and veterinary services. The other major expense the club incurs is hay and feed for the horses.

Abby’s Pony Club maintains the following general ledger accounts: Cash at Bank; Boarding Accounts Receivable; Hay and Feed Supplies; Horses; Building; Riding Yard; Riding Equipment; Office Equipment; Accounts Payable; Abby Forbes, Capital; Abby Forbes, Drawings; Riding Revenue; Lesson Revenue; Boarding Revenue; Salaries Expense; Advertising Expense; Electricity Expense; Veterinary Fees Expense; and Hay and Feed Expense.

Following the retirement of the club’s accountant, Abby employed an inexperienced bookkeeper who has kept the records for the last month of operations and made 38 entries for the month. Abby is concerned the bookkeeper may have made some errors and has asked you to review the following eight general journal entries. In each case the narration is correct. GST is ignored.



General Journal

Date	Particulars	Debit	Credit
2016			
June 1	Cash at Bank	30 000	
	Abby Forbes, Capital		30 000
	(Abby invested $30 000 cash in the business)		
5	Hay and Feed Expense	3 700	
	Cash at Bank		3 700
	(Purchased supply of hay and feed on account, $3700)		
9	Riding Equipment	1 600	
	Cash at Bank		1 600
	(Purchased office desk for $1600 cash)		
10	Cash at Bank	500	
	Lesson Revenue		500
	(Received $500 for lesson fees)		
12	Cash at Bank	1 200	
	Boarding Revenue		1 200
	(Received $1200 for boarding of horses billed last month)		
18	Salaries Expense	700	
	Cash at Bank		700
	(Issued cheque to Abby for personal expenses)		
20	Veterinary Fees Expense	270	
	Accounts Payable		270
	(Received an account for $270 from a veterinarian for services rendered)		
22	Cash at Bank	340	
	Riding Revenue		340
	(Received $340 for riding fees)		

Required

A. Decide which general journal entries are correct and which ones are incorrect.
B. For each general journal entry that is incorrect, prepare the correcting journal entry.

C. Which of the incorrect journal entries would prevent the trial balance from balancing?
D. What was the correct profit figure for June, assuming the bookkeeper originally had calculated profit to be $4500 after posting all the entries for the month?
E. What was the correct cash at bank balance at 30 June assuming the bookkeeper reported a balance of $5420 after posting all the entries for the month?

ETHICS AND GOVERNANCE

Big Business Tobacco (BBT) is a large Australian producer of tobacco products including a market-leader brand of cigarettes. With the continuing development of Asian countries such as China and its move to a market-based economy, the company has made the decision to sell its cigarettes in this large market from the beginning of next month. The cigarettes will be sold in packs of 40.

Mary Bender, marketing manager, is discussing the design of the cigarette packet for the Asian market with Randall Hedges, the company’s public relations manager. Having agreed on the basic design of the pack, Hedges raised the issue of whether to include the normal health warning on the pack, which has to be displayed under Australian law. He emphasised recent medical findings which predicted many hundreds of thousands of deaths from cigarette smoking in the next few years, particularly in the developing countries.

Mary Bender was strongly opposed to including a ‘health hazard’ warning on the packs destined for parts of the Asian market. She explained: ‘In this business it is the bottom line (i.e. profits) which matters — we have to think of our shareholders. BBT stands to lose a considerable market share to competitors if it includes such a warning. Besides, it is not a legal requirement in many Asian countries to display a health warning on cigarette packs. If Asian law is subsequently amended then we will be one of the first to comply. Besides, the managing director supports me on this one.’

Hedges expressed a final opinion: ‘The company could be better off in the long term by being seen to be acting with corporate responsibility, and demonstrating some concern for its consumers. Besides, such warnings have not been detrimental to the company’s performance in Australia, where health warnings have been common for many years.’

Required

A. Who are the major stakeholders in the debate on the health warnings on cigarette packs?
B. What are the main ethical issues involved in the debate?
C. If you were Randall Hedges, what would you do?

FINANCIAL ANALYSIS

Refer to the consolidated financial statements in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions:

1. What is the total value in the consolidated financial statements for each of the following items at the end of the year?
   Cash (and cash equivalents)
   Inventories
   Sales revenue
   Other income
   Plant and Equipment
   Interest expense (Financial Costs)
   Sales and marketing expenses
   Occupancy expenses
   Trade and other payables
   Borrowings (non-current)

2. What is the normal balance for each of the accounts listed above? What side of the account, debit or credit, is affected in order to decrease each item?

3. What is the most likely other account(s) to be affected whenever each of the above items is increased?

1. The term ***salary*** refers usually to fixed compensation paid on a regular basis for services received from employees. The term ***wage*** is used commonly to refer to compensation stated in terms of an hourly rate or a similar basis. Here, for convenience, the term ***salary*** applies to both.

CHAPTER 4

Adjusting the accounts and preparing financial statements

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the format for T accounts and running balance accounts, and the normal account balances for assets, liabilities, equity, income and expenses (pp. 77–86)
- the nature of doubleentry accounting and the meaning of debit and credit (p. 77)
- how to enter a transaction in the general journal (pp. 88–9)
- how to post transactions from the journal to the general ledger (pp. 89–90)
- how to prepare a trial balance (pp. 105–6).

Learning Objectives

After studying this chapter you should be able to:

1 describe the difference between the cash basis and the accrual basis of measuring profit (pp. 130–2)
2 explain the accounting cycle and the need for end-of-accounting-period adjusting entries (pp. 132–3)
3 identify and prepare the different types of adjusting entries (pp. 133–46)
4 prepare an adjusted trial balance and financial statements (pp. 146–51)
5 describe the difference between current and non-current assets and liabilities (pp. 151–3)
6 use a worksheet to prepare the financial statements (pp. 154–60)
7 explain how financial statements are used in decision making (pp. 160–2).

Twenty years on, the benefits are clear

Accrual accounting is not the work of the devil. It is the same accounting that most of us use in our own lives. In fact, accountants refer dismissively to the alternative, cash accounting, as ‘jam jar accounting’. Some families still use the jam jar method: put the cash pay packet into a jam jar on top of the fridge at the start of the week, and pull money out of it as they need it to buy things. The moment they open a bank account, buy an asset or take out a loan, they are starting to engage in accrual accounting. Most businesses in Australia use it.

The difference between accrual and cash accounting is that accrual accounting records transactions when they take place (for example, a purchase is made or a service is provided) rather than when cash changes hands. Often these are identical; you buy something, you pay in cash. Same difference. Small single-owner businesses like Con the fruiterer manage quite well on this basis. However, if you buy goods and the cash takes time to be paid, you don’t track it as well. If you complete a project for a client, the cash method only records the transaction when they pay up. Accrual accounting records it in the books so you know to chase the client for the money.

When a family takes out a home loan, they are applying an element of accruals. They don’t yet own their house but they have an asset (the house) and liabilities (the loan). The huge advantage of accrual accounting is that it allows households, businesses and, yes, government departments, to keep track of their assets and liabilities.

It is not long since most government agencies used cash accounting. They were, in effect, given a bundle of cash each month to put in their jam jar and pulled it out as required to run programs and pay salaries. That changed in the early 1990s.

One of accrual accounting's main advantages is that it requires reporting of assets and liabilities. Although agencies had needed to keep asset registers, these were a third-order management priority and generally ignored. As a consequence, assets were regularly lost or mismanaged. For example, an important collection of historical naval items left to the Commonwealth was simply lost in the former Transport Department in the 1970s, never to be recovered. Agencies did not manage either their assets or their liabilities (mainly, money owing for staff leave) at all well.

With accrual accounting, agencies were able to keep track of both their assets and liabilities (money they owed). As a result, they started to manage these better.

The fact that accrual accounting is just normal, everyday accounting for most Australian businesses and households is reason enough to keep it. If departments and agencies cannot manage their finances, how can they be expected to deliver services to the public? Accrual accounting helps provide this assurance.

If ever evidence was needed of the value of accruals, it is in the Defence Department. For example, after accrual budgeting was introduced, Defence discovered that it had warehouses full of 286-kilobyte computers. For younger readers, this was actually a computer that ancient people used, way back in the 1990s. When the department realised they had to carry this stock on their books, they promptly disposed of them. For years, Defence had its accounts qualified by the auditor-general: the numbers were not complete and accurate. In recent annual reports, for the first time since the 1990s, Defence has produced annual accounts that are not qualified. The public can now rely on the Defence Department's financial reporting: no small achievement. Although many current and former personnel may grumble, managing money both in Defence and throughout the public service has improved as a result of accrual accounting.

Source: Excerpts from Bartos, S 2012, 'Twenty years on, the benefits are clear', ***The Sydney Morning Herald.***

Chapter preview

A major objective of a business is to earn profits. All businesses must earn profits in the long term to survive. To accomplish this, most business entities engage continuously in transactions and it is up to the business to ensure that these transactions are properly recorded. As discussed in chapter 2, in order to provide timely information to users of financial statements, the life of an entity is divided into relatively short intervals of equal length called accounting periods. One important function of accounting for a business is to measure the profit or loss during an accounting period and to keep track of assets and liabilities. The amount of profit or loss is the difference between income and expenses. As mentioned in the scene setter, keeping track of assets and liabilities is best achieved using accrual accounting. In this chapter we concentrate on how accountants define and determine profit, as well as how and why adjusting entries are made in the context of the accounting cycle for a business entity.

4.1 Measurement of profit

LO 1 Describe the difference between the cash basis and the accrual basis of measuring profit.

Profit for a period is determined by deducting expenses for the period from income for the period, i.e. Profit = Income − Expenses. The measurement of profit, therefore, is the result of the recognition and measurement of income and expenses. Income and expenses may be recognised on either a cash basis or an accrual basis; however, as discussed in chapter 2, most business systems are organised on the accrual basis.

Cash basis

Under the cash basis of accounting, income (including revenues) is recorded in the period in which cash is received and expenses are recorded in the period in which cash is paid. Profit is the excess of cash inflows from income over cash outflows for expenses. This method does not recognise income when goods are sold or services are performed on credit. In addition, the costs of goods and services consumed during the current period, but not paid for, are recognised as expenses in a subsequent period when cash is paid.

Although the cash basis approach is used by some small business entities and professionals who conduct most of their activities in cash, it is not satisfactory for most business entities that conduct a significant portion of their activities on credit. Nor, as the scene setter discussed, is it considered satisfactory for use in government, which has switched to the accrual basis. The cash basis system can be justified only because it is simple to operate and only if it produces results essentially the same as those produced by accrual accounting.

Accrual basis

Under the accrual basis of accounting, income (including revenues) is recognised in the period in which the expected inflow of economic benefits can be measured in a faithful and verifiable manner, i.e. normally in the period in which a business sells goods or performs services under a contractual arrangement. Expenses are recognised when the consumption of goods or services is also capable of such measurement. Accrual basis profit for an accounting period, in its simplest form, is determined by subtracting expenses incurred during the period from income earned in that period. To develop a more thorough understanding of accrual accounting, the important concepts of income and expense are discussed in more detail.

Income (including revenue)

Income represents increases in economic benefits during the period in the form of inflows or enhancements of assets or of decreases in liabilities that result in increases in equity, other than those relating to contributions by owners. As mentioned in chapter 3 (p. 82), revenue is regarded as a major part of income, i.e. that part which occurs in the ordinary activities of an entity, such as the performance of services or the sale of merchandise. Revenues are recognised at the fair value of assets received. Normally, the asset received is cash or the right to receive cash from customers in the future (an account receivable). Occasionally, an entity may receive property or services in payment for goods sold or services rendered, in which case the amount of revenue recorded is the fair value of the asset or service received. Thus, for a given accounting period, revenue is recognised as the sum of cash, accounts receivable and the fair value of other assets received from customers for the sale of goods or for the performance of services during that particular period.

To illustrate the accrual concept of revenue, assume that an entity began operations in 2015 and received $100 000 in cash for services performed before the end of the year. Assume also that its clients were charged $20 000 for services completed in 2015 for which the cash is to be received in 2016. Revenue recognised in 2015 is $120 000, which is the sum of cash received ($100 000) and accounts receivable ($20 000) from customers for services performed in 2015. Recall from chapter 3 that, when services are performed for customers on credit, both accounts receivable and revenue are increased. In 2016, the cash collection of $20 000 is not revenue but is recorded as an increase in the asset ‘cash at bank’ and a decrease in the asset ‘accounts receivable’. Thus, revenue is recognised when it is capable of faithful and verifiable measurement, regardless of in which period the resulting cash is collected.

Some entities perform services for their clients and charge a fee or commission for the services performed. Examples are a real estate office, a law firm, an accounting firm, a public relations firm, an advertising agency, or an investment advisory service. Various account titles are used to describe the major sources of revenue, and the account titles should be descriptive of the nature of the revenue. For example, Management Services Fees Revenue and Tax Services Fees Revenue may be used by an accounting firm to account for major categories of revenue. Other firms, called retailers, generate revenue by selling goods. An account entitled Sales Revenue is commonly used by retail businesses to record revenue from the sale of merchandise.

Expenses

Costs are incurred as a necessary part of earning revenue. The portion of a cost that is expected to provide economic benefits in a future period represents an **unexpired cost** and is reported as an asset in the balance sheet (also called the statement of financial position) at the end of the period. The costs of assets that have been consumed during the current period are reported in the income statement as expenses (sometimes called **expired costs**) and are deducted from income (revenues) to calculate profit. In other words, expenses are the costs of services and assets consumed in the current period.

Under the accrual basis of accounting, expenses are recognised in the period in which the consumption of costs can be measured in a faithful, verifiable manner rather than in the period in which the cash is paid. For example, salaries earned by employees in this period are reported as a current expense because the amount of the salaries can be measured in a verifiable manner, even though payment may not be made until the next period. In other cases, such as the prepayment of rent for the next period and the purchase of office equipment for cash, cash is paid before an expense is incurred. These prepayments are accounted for as assets (unexpired costs) until the benefits of the rent or the office equipment are consumed by the entity, at which time they are transferred to expense accounts. In many cases, however, the expense and cash payment occur in the same period. Whatever the situation, it is important to realise that an expense incurred and the cash payment for it often do not occur in the same accounting period.

When a building is purchased, it is recorded as an asset as it will provide economic benefits over several periods. Allocating the cost of assets such as a building across time periods is based on estimates because of the accountant's inability to predict the future and to know the length of time over which an asset will be consumed. The need for timely information, however, takes precedence over the lack of precision involved in preparing accrual basis financial statements. Accrual estimates must be relevant if performance and financial position are to be assessed properly.

Despite the allocation problems, financial statements are prepared on the assumption that the entity will continue to operate in the future (the ***going concern assumption***) unless there is evidence to the contrary. Going concern is the underlying basis for accrual accounting. If there were no need for periodic reports or if the entity were to liquidate in the near future, the cash basis would be satisfactory.

Although expenses decrease equity, not all decreases in equity are expenses. For example, a withdrawal of an asset by the owner decreases equity but is not an expense of the business. Remember also that not all cash payments are expenses. Examples are the repayment of a loan, the cash purchase of office equipment (the cost will be expensed in future periods as the asset is used), and cash withdrawals by the owners.

Temporary (nominal) and permanent (real) accounts

Although income (including revenues) increases and expenses decrease equity, separate accounts are maintained for each major type of income and expense to provide detailed information about the dollar amount and sources of income and the dollar amount and types of expenses. This information is reported to interested parties, internal and external, via the income statement. Income statements are prepared for periods of equal length to enable statement users to make meaningful comparisons of current-period results with those of previous periods. To enable the preparation of the next period's income statement, all income and expense accounts are reduced to a zero balance at the end of the accounting period — a process called ***closing the accounts*** — by transferring these account balances to an equity account. (This step in the accounting cycle is described in the next chapter.) Because the income and expense accounts are reduced to a zero balance at the end of the accounting period, they are called **temporary** (or **nominal**) **accounts**. Accounts reported in the balance sheet are not closed; their ending balances of one period are carried forward and become the beginning balances of the next period. These accounts are called **permanent** (or **real**) **accounts**.

LEARNING CHECK

- ☐ Under the cash basis of accounting, income (including revenues) is recorded in the period in which cash is received and expenses are recorded in the period in which cash is paid.
- ☐ Under the accrual basis of accounting, income (including revenues) is recognised in the period in which the expected inflow of economic benefits can be measured reliably; expenses are recognised when the consumption of goods or services is capable of reliable measurement.
- ☐ Income and expense accounts are reduced to a zero balance at the end of the accounting period, so

are called ***temporary accounts***.

- Balance sheet accounts are not closed; their ending balances become the beginning balances of the next period, so they are called ***permanent accounts***.

4.2 The accounting cycle — expansion to include adjusting entries

LO 2 **Explain the accounting cycle and the need for end-of-accounting-period adjusting entries.**

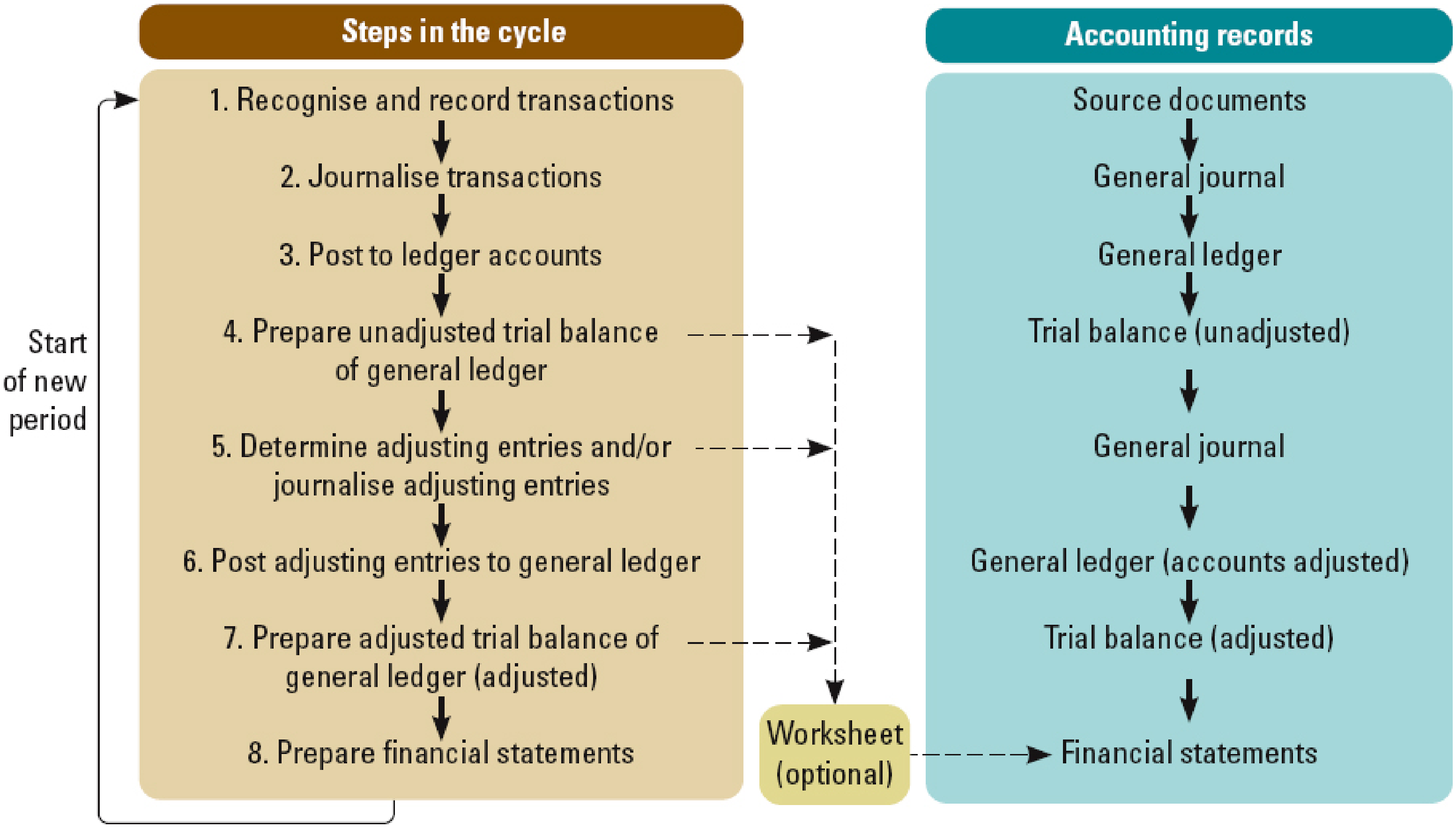
This chapter introduces the recording of end-of-period adjustments. Because accounting has adopted the accrual basis assumption in the ***Conceptual Framework*** end-of-period adjustments are very important to recognise the accruals needed at the end of the accounting period. These adjusting entries are recorded in the general journal, and then posted to the general ledger, and an adjusted trial balance is prepared to prove the general ledger is in balance after the adjusting entries have been posted to the relevant accounts. The use of an optional worksheet to enable the recording of adjustments outside the accounting records and to prepare financial statements is also illustrated. The worksheet is particularly helpful when managers wish to prepare end-of-month financial statements during the yearly accounting period.

The accounting cycle developed in chapter 3 (illustrated in figure 3.8, p. 87) is expanded to accommodate the additional steps introduced in this chapter (figure 4.1 opposite). Note that the cycle is repeated each accounting period.

The need for adjusting entries

In many cases, the payment or receipt of cash coincides with the accounting period in which the expense or income is recognised. However, some transactions affect the entity's profits and financial position for two or more accounting periods. In these cases, the period in which the cash is paid or received does not coincide with the period in which the expense and income are recognised. As a result, some of the accounts must be adjusted as of the last day of the accounting period to provide for the correct recognition of income and expenses (inflows and outflows of economic benefits not reflected in cash receipts or cash payments) during the period in order to assess the entity's performance. In addition, adjusting entries are necessary to achieve an accurate reporting of asset and liability balances on the last day of the accounting period in order to assess the entity's financial position.

Figure 4.1 The accounting cycle — expanded to include adjusting entries



The adjusting process involves an analysis of the accounts and supporting documents to determine whether entries are needed to adjust account balances to their proper amounts for financial statement purposes. Once this analysis is completed, **adjusting entries** are entered in the journal and posted to the accounts.

Preparation of adjusting entries is an important step in the accounting cycle of a business. During the accounting year, if interim (end-of-month) financial statements are required, the adjusting entries commonly are not recorded in the entity's journal, but are shown on a worksheet (see later in this chapter). Adjusting entries are recorded in the entity's general journal only on the last day of the entity's accounting period.

LEARNING CHECK

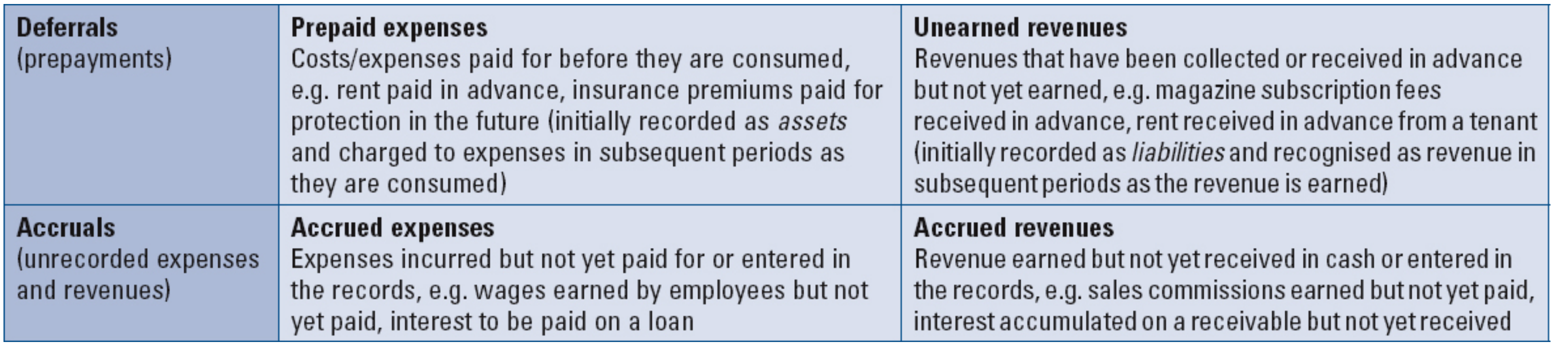
- ☐ Adjusting entries are needed because in some cases the period in which the cash is paid or received does not coincide with the period in which the expense or income should be recognised.
- ☐ Adjusting entries are made in the general journal only on the last day of the reporting period.

4.3 Classification of adjusting entries

LO 3 **Identify and prepare the different types of adjusting entries.**

Adjusting entries are classified into two major categories, deferrals and accruals. **Deferrals** are expenses paid in advance (called 'prepaid expenses') or revenues received in advance (called 'unearned revenues') which need to be allocated over future accounting periods. That is, although the cash flows have occurred, recognition of the associated expenses and revenues is deferred until future periods. **Accruals** are the recognition of expenses incurred but not yet paid for (called 'accrued expenses') or the recognition of revenue earned but for which cash has not yet been received (called 'accrued revenues'). Figure 4.2 (p. 134) summarises the types of adjusting entries.

Figure 4.2 types of adjustments



Deferrals (prepayments)	**Prepaid expenses** Costs/expenses paid for before they are consumed, e.g. rent paid in advance, insurance premiums paid for protection in the future (initially recorded as *assets* and charged to expenses in subsequent periods as they are consumed)	**Unearned revenues** Revenues that have been collected or received in advance but not yet earned, e.g. magazine subscription fees received in advance, rent received in advance from a tenant (initially recorded as *liabilities* and recognised as revenue in subsequent periods as the revenue is earned)
Accruals (unrecorded expenses and revenues)	**Accrued expenses** Expenses incurred but not yet paid for or entered in the records, e.g. wages earned by employees but not yet paid, interest to be paid on a loan	**Accrued revenues** Revenue earned but not yet received in cash or entered in the records, e.g. sales commissions earned but not yet paid, interest accumulated on a receivable but not yet received

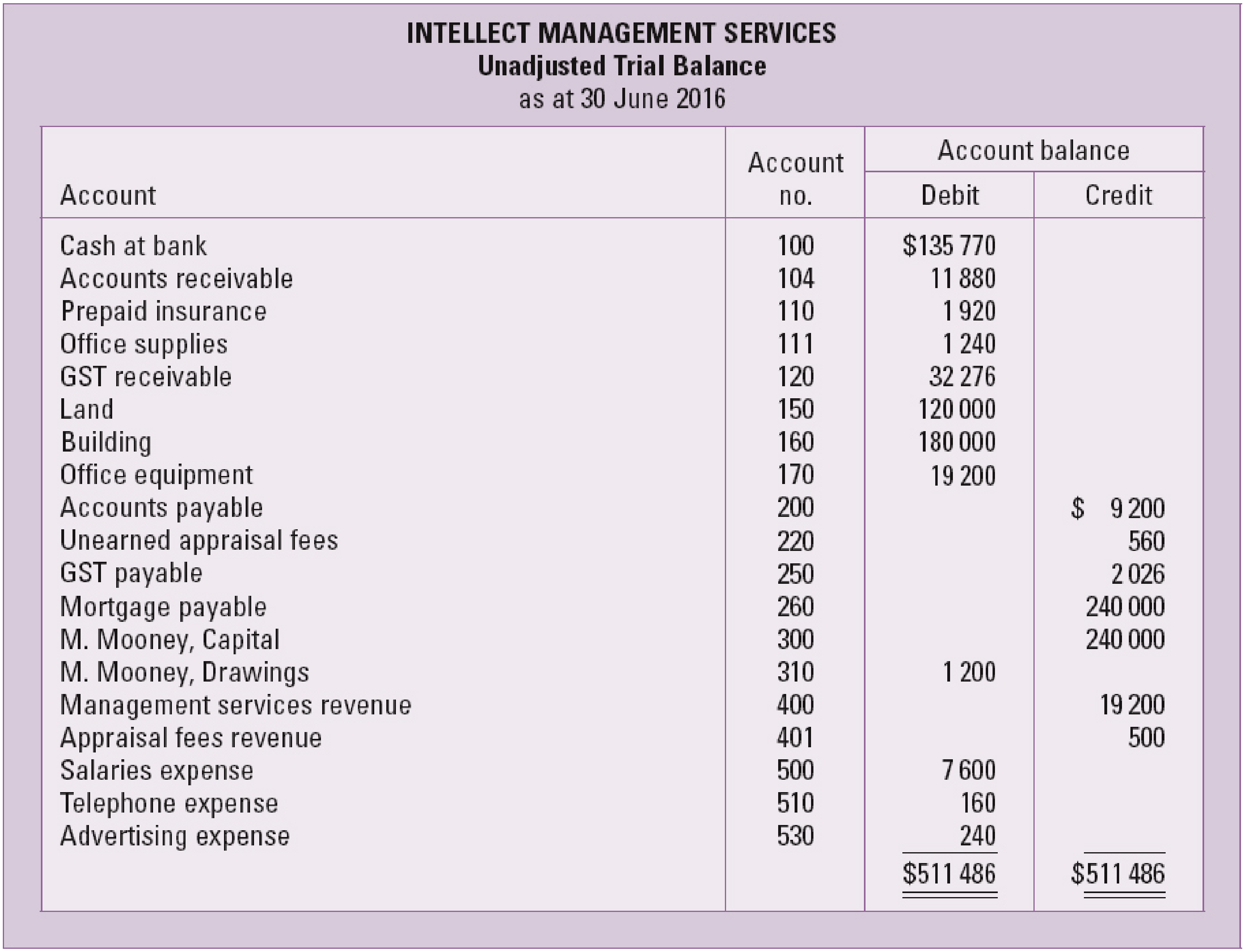
Since adjusting entries are made so that all income (revenues) and expenses are recognised in the appropriate accounting period, it follows that adjusting entries affect both the size of the entity's profit and its financial position. There are two rules for adjusting entries.

- One side of the entry affects an account reported in the income statement (expense or income (revenue)), and the other side of the entry affects an account reported in the balance sheet (asset or liability).
- The cash account is never adjusted as the cash flow occurs either before or after the end of the reporting period.

To demonstrate each of these types of adjusting entries, the illustration of Intellect Management Services developed in chapter 3 is continued. A trial balance on 30 June was prepared in chapter 3 and is shown again in figure 4.3. This trial balance is called an unadjusted trial balance because at this stage no adjustments to the accounts have been made. For illustrative purposes we shall assume that the financial year for Intellect Management Services ends on 30 June, i.e. only 1 month after commencing business, and therefore adjusting entries are prepared in the general journal.

Where an entity has operated for the whole 12 months of the financial year, formal adjusting entries are made in the general journal usually only at year's end. If interim (e.g. monthly) financial statements are prepared for internal management purposes, the adjusting entries are entered usually on a worksheet only, as illustrated later in the chapter.

Figure 4.3 Unadjusted trial balance of Intellect Management Services



INTELLECT MANAGEMENT SERVICES
Unadjusted Trial Balance
as at 30 June 2016

Account	Account no.	Account balance	
		Debit	Credit
Cash at bank	100	$135 770	
Accounts receivable	104	11 880	
Prepaid insurance	110	1 920	
Office supplies	111	1 240	
GST receivable	120	32 276	
Land	150	120 000	
Building	160	180 000	
Office equipment	170	19 200	
Accounts payable	200		$ 9 200
Unearned appraisal fees	220		560
GST payable	250		2 026
Mortgage payable	260		240 000
M. Mooney, Capital	300		240 000
M. Mooney, Drawings	310	1 200	
Management services revenue	400		19 200
Appraisal fees revenue	401		500
Salaries expense	500	7 600	
Telephone expense	510	160	
Advertising expense	530	240	
		$511 486	$511 486

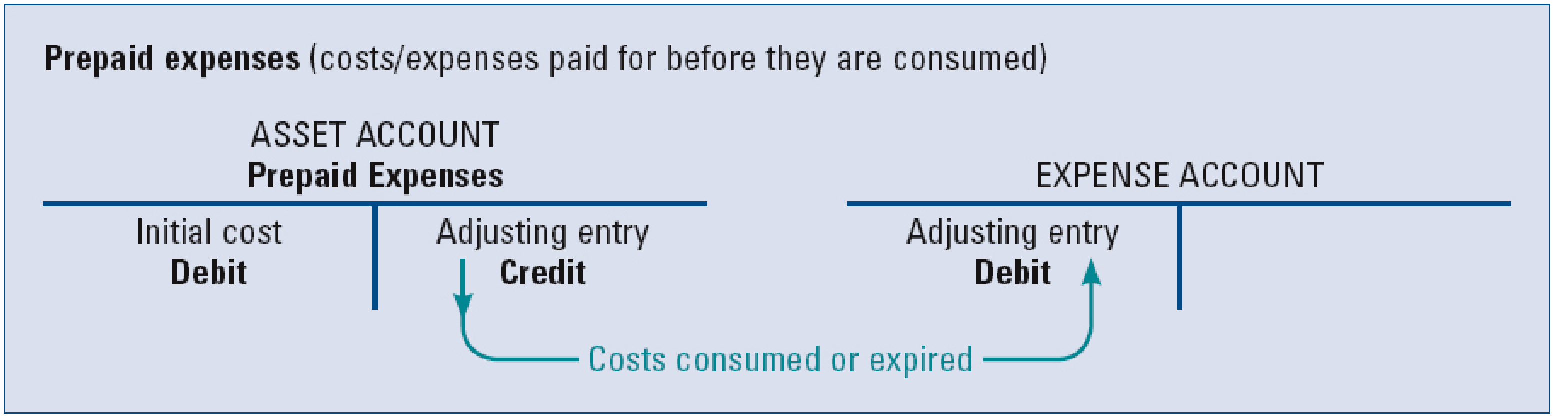
Adjusting entries for deferrals

Prepaid expenses

An entity often pays for certain items (such as rent, insurance and supplies) in advance of their use. Under the accrual basis of accounting, the payment of cash does not necessarily result in the recognition of an expense. Goods and services that are paid for in advance and are expected to provide benefits beyond the current period are ***normally*** recorded as assets at the time of payment. At the end of the accounting period, the portion of the cost that relates to goods that have been consumed or with services that have been received is transferred to an expense account. The remaining unexpired or unused portion of the cost is reported as an asset in the balance sheet, since it represents future economic benefits to be received in future periods. Thus, before the financial statements are prepared, the balance in the asset account is analysed and is divided between an asset and an expense.

Adjusting entries for prepaid expenses covered above are summarised in figure 4.4.

Figure 4.4 Adjusting entries for prepaid expenses (asset initially recorded)



Prepaid insurance

On 3 June, a 24-month fire and business liability insurance policy was purchased by Intellect Management Services for $1920 plus GST of $192, as evidenced by a tax invoice of $2112. Insurance coverage began on 1 June. The transaction was initially recorded as follows:

June 3	Prepaid Insurance	110	1 920	
	GST Receivable	120	192	
	Cash at Bank	100		2 112
	(Purchase of a 24-month fire and business liability insurance policy)			

Recall that the account numbers are added to the posting reference column in the journal when postings are made to the ledger.

The balance in the Prepaid Insurance (asset) account remains the same until the end of the month, at which time the cost of the insurance protection for the month of June is calculated. The cost of the insurance protection per month is $80 ($1920 ÷ 24 months). The following adjusting entry is made on 30 June to record insurance expense and to reduce the Prepaid Insurance account. The GST has no effect on this internal transaction. (The adjusting entries are identified by letters in this illustration for reference purposes only.)

June 30 (a)	Insurance Expense	521	80	
	Prepaid Insurance	110		80
	(Adjusting entry to record expiration of 1-month's insurance)			

After the adjusting entry is posted, the accounts appear as follows:

Prepaid Insurance **110**

3/6	Cash at Bank	1 920	30/6	Insurance Expense	**80**

Insurance Expense **521**

30/6	Prepaid Insurance	**80**			

The adjusting entry reduces the Prepaid Insurance account ***balance*** to $1840 ($1920 − $80), which is the unexpired portion of the cost applicable to future periods, and is reported as an asset. The portion of the cost that is used in this period ($80) is properly shown as an expense for the month of June. If the adjusting entry were not made, profit, assets and equity would all be overstated.

In future periods, the $1840 balance is reduced by $80 each month as insurance protection is received by the entity, i.e. insurance expense is incurred. The costs of additional policies purchased are debited to the Prepaid Insurance account and allocated to expense following the same procedures.

Prepaid expense recorded initially in an expense account. In the previous discussion, the insurance premium paid in advance was originally debited to an asset account. It is possible, however, to record prepaid items in more than one way. Some entities find it more convenient to record all payments for goods or services initially in expense accounts, irrespective of whether a particular cost benefits the current period only or is expected to benefit several accounting periods. If this method is used, the accounts must be adjusted at the end of the period to determine properly the expense of the current period and to recognise an asset for the prepaid portion of the payment.

To illustrate, assume that Intellect Management Services recorded the payment for the insurance policy as follows on 3 June:

June 3	Insurance Expense	521	1 920	
	GST Receivable	120	192	
	Cash at Bank	100		2 112
	(Purchase of a 24-month fire and business liability insurance policy)			

At the end of the period, an adjusting entry is needed to remove the unexpired portion of the insurance coverage from the expense account.

June 30 (aa)	Prepaid Insurance	110	1 840	
	Insurance Expense	521		1 840
	(Adjusting entry to record portion of insurance policy unexpired) [23 months × $80 per month]			

After these entries are posted, the two accounts appear as follows:

Insurance Expense 521

3/6	Cash at Bank	1 920	30/6	Prepaid Insurance	**1 840**

Prepaid Insurance 110

30/6	Insurance Expense	**1 840**			

Note that the 30 June balances are the same (Prepaid Insurance, $1840; Insurance Expense, $80, i.e. $1920 − $1840) as when the insurance premium payment was made initially to the Prepaid Insurance (asset) account.

When this method is used to record prepayments, a journal entry is commonly made on the first day of the new accounting period (1 July) to restore the prepaid portion of the premium of $1840 to the Insurance Expense account. The entry, referred to as a reversing entry (see chapter 5), is as follows:

July 1	Insurance Expense	521	1 840	
	Prepaid Insurance	110		1 840
	(Reversing entry)			

Additional payments for insurance premiums are then added to the balance in the Insurance Expense account. At the end of the next reporting period, the account is analysed and the prepaid portion is removed again, as was done in entry (aa). The above treatment of prepaid expenses is summarised in figure 4.5.

The preferred treatment is to debit the Prepaid Insurance asset when the premium is paid. This approach correctly recognises an existing asset at the time and means that you don’t have to make a reversing entry later.

Figure 4.5 Adjusting entries for prepaid expenses (expense initially recorded)

Prepaid expenses (costs/expenses paid for before they are consumed)

Office supplies

Intellect Management Services made the following journal entry on 5 June to record a tax invoice covering the purchase of office supplies:

June 5	Office Supplies	111	1 240	
	GST Receivable	120	124	
	Accounts Payable	200		1 364
	(Office supplies purchased on credit)			

The cost of unused office supplies is reported as an asset in the balance sheet. As the office supplies are consumed, their cost is transferred to an expense account. Normally, the recognition of the expense occurs at the end of the accounting period. In other words, no journal entry is made during the period to record the cost of supplies consumed because this information is not needed on a day-to-day basis. Before financial statements are prepared, an adjusting entry is made to remove the cost of the supplies consumed from the asset account and to recognise the cost of supplies consumed as an expense.

For control purposes, the supplies are normally kept in a central location and employees may be required to fill out a requisition when supplies are needed. The requisitions are then totalled to determine the cost of supplies consumed during the period. If a requisition system is not used, the cost of the supplies on hand is determined by counting the items on hand and costing them.

In the case of Intellect Management Services, assume that the cost of the supplies on hand at the end of June was determined to be $1080. The cost of supplies used this period is assumed to be $160, since a total of $1240 was available for use during the period. The following adjusting entry is made to record the supplies used:

June 30 (b)	Office Supplies Expense	530	160	
	Office Supplies	111		160
	(Adjusting entry to record supplies consumed in June)			

GST is not affected by the consumption of office supplies as this is an internal transaction. After the entry is posted, the accounts appear as follows:

Office Supplies 111

5/6	Accounts Payable	1 240	30/6	Office Supplies Expense	160

Office Supplies Expense 530

30/6	Office Supplies	160			

The $1080 balance left in the Office Supplies account is the cost of supplies available for use in future periods (an asset). The $160 balance in the Office Supplies Expense account is the cost of supplies consumed during June, and is included as an expense for this period in the income statement.

In future periods, the cost of additional purchases of supplies is debited to the Office Supplies account. The same analysis and process described above is performed at the end of each accounting period. The generalised treatment of adjustments covered in this section is as shown in figure 4.4 on page 135.

Depreciation of equipment and buildings

Included in the June transactions of Intellect Management Services was the acquisition of a building for $180 000 and office equipment for $19 200. These assets were acquired by the entity for use in carrying out its activities. To determine profit, the cost of each asset less its expected sales value at the end of its estimated useful life is allocated to expense in the current and future periods as the assets are consumed in producing income. **Useful life** is the estimated amount of time over which the asset is expected to be consumed by the entity. The portion of the asset's cost assigned to expense is called **depreciation**.

The adjusting entry to record depreciation is similar in concept to the entries made to allocate the cost of the insurance policy and office supplies described above. That is, an expense account is debited for the portion of the cost allocated to the current period and an asset is decreased. However, unlike the insurance policy and office supplies, which generally are used for one or two periods, items of equipment and buildings are used for long periods of time, sometimes up to 30 years or longer. It is often impossible for the accountant to know exactly the useful life of such assets or the sales values at the end of their useful lives. Consequently, amounts calculated for depreciation are based on estimates of the asset's useful life and expected sales value at the end of the asset's useful life. This expected sales value is called 'residual value' and is discussed further in a later chapter. Depreciation expense is an estimate only. There are no GST implications as depreciation is an internal transaction.

In making the adjusting entry for depreciation, a separate account entitled Accumulated Depreciation is credited for the cost associated with the period rather than making a direct credit to the asset account. The balance in the **Accumulated Depreciation** account reflects the portion of the cost that has been assigned to expense and accumulated since the item was purchased. The Accumulated Depreciation account is called a **contra account**. A contra account is reported as an offset to or a deduction from a related account. Thus, in the balance sheet, the Accumulated Depreciation account is reported as a deduction from the original cost as shown in the related asset account. Reporting both the original cost of the asset and the accumulated depreciation can provide useful information about the age of the asset to statement users. Adjusting for depreciation is summarised in figure 4.6.

To illustrate, assume the building has a useful life of 25 years, at which time it is expected to have a residual value of $30 000. The office equipment has an 8-year useful life and a zero residual value at the end of 8 years. The monthly depreciation expense for each asset is calculated as follows:

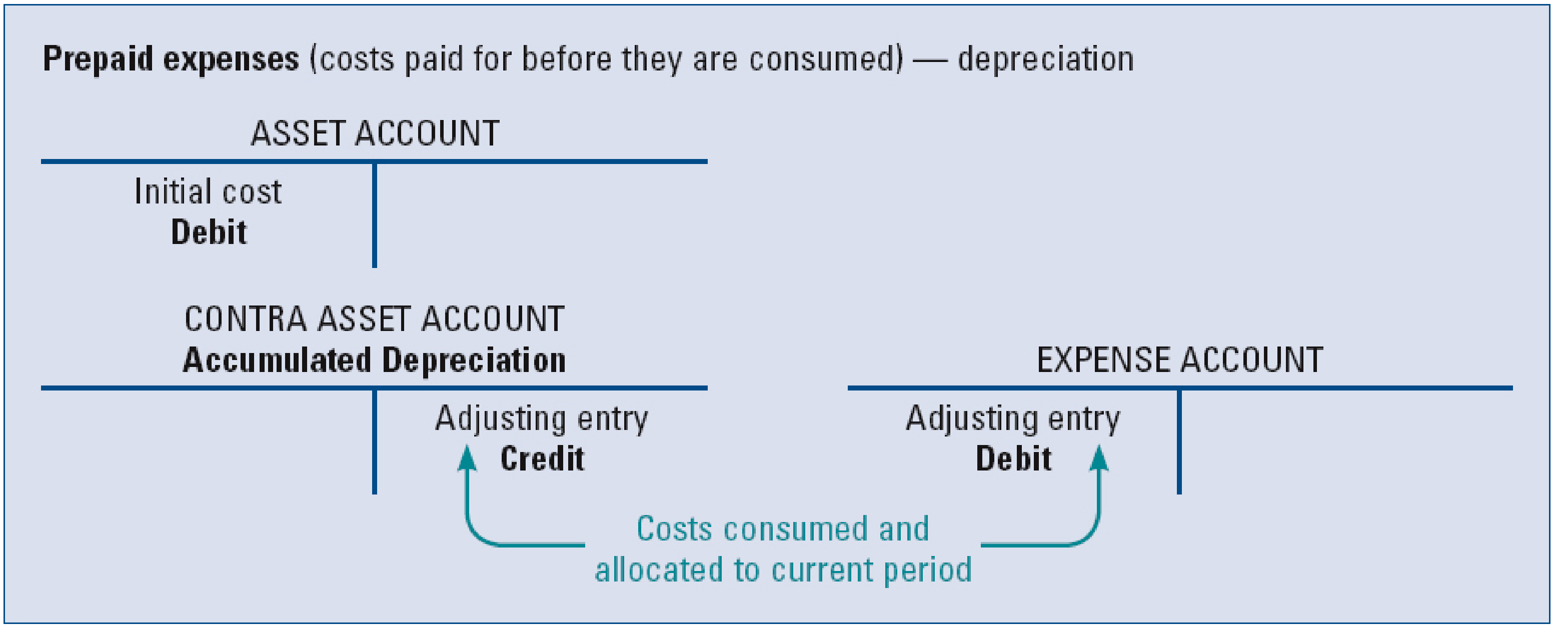
Office equipment

$$\frac{\$19\,200}{96 \text{ months}} = \$200 \text{ per month}$$

Building

$$\frac{\$180\,000 - \$30\,000}{300 \text{ months}} = \$500 \text{ per month}$$

Figure 4.6 Adjusting entries for prepaid expenses (non-current assets) — depreciation



The adjusting entries to record depreciation for the month of June are:

June 30 (c)	Depreciation Expense – Office Equipment Accumulated Depreciation – Office Equipment (Adjusting entry to record depreciation of equipment)	540 171	200	 200
June 30 (d)	Depreciation Expense – Building Accumulated Depreciation – Building (Adjusting entry to record depreciation of building)	541 161	500	 500

(Instead of preparing two entries, the adjustments could be accomplished in one combined entry.)

The accounts for depreciation of office equipment after posting appear as follows:

Office Equipment 170

5/6	Cash/Mortgage Payable	$19 200			

Accumulated Depreciation – Office Equipment 171

			30/6	Depr. Exp. – Off. Equip.	**200**

Depreciation Expense – Office Equipment 540

30/6	Acc. Depr. – Off. Equip.	**200**			

Depreciation is reported as an expense in the income statement. The Building and Office Equipment accounts will be shown in the balance sheet at the end of the first month as follows:

Building	$180 000	
Less: Accumulated depreciation – building	500	$179 500
Office equipment	19 200	
Less: Accumulated depreciation – office equipment	200	19 000

The difference between the original cost of the asset and its accumulated depreciation is called the **carrying amount** (or **book value**) of the asset and represents the unexpired cost of the asset.

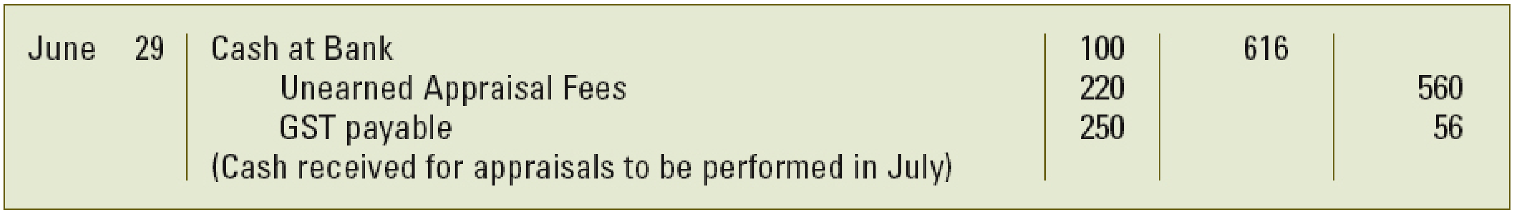
As long as the assets are used, the same adjusting entries are made until the cost less expected sales value is fully assigned to expense. Thus, in successive balance sheets the Accumulated Depreciation –

Office Equipment account increases $200 each month and the Accumulated Depreciation – Building account increases $500 each month. The original cost of the two assets remains in the Office Equipment and Building accounts and does not change. A more complete discussion of depreciation is provided in later chapters.

Precollected or unearned revenue

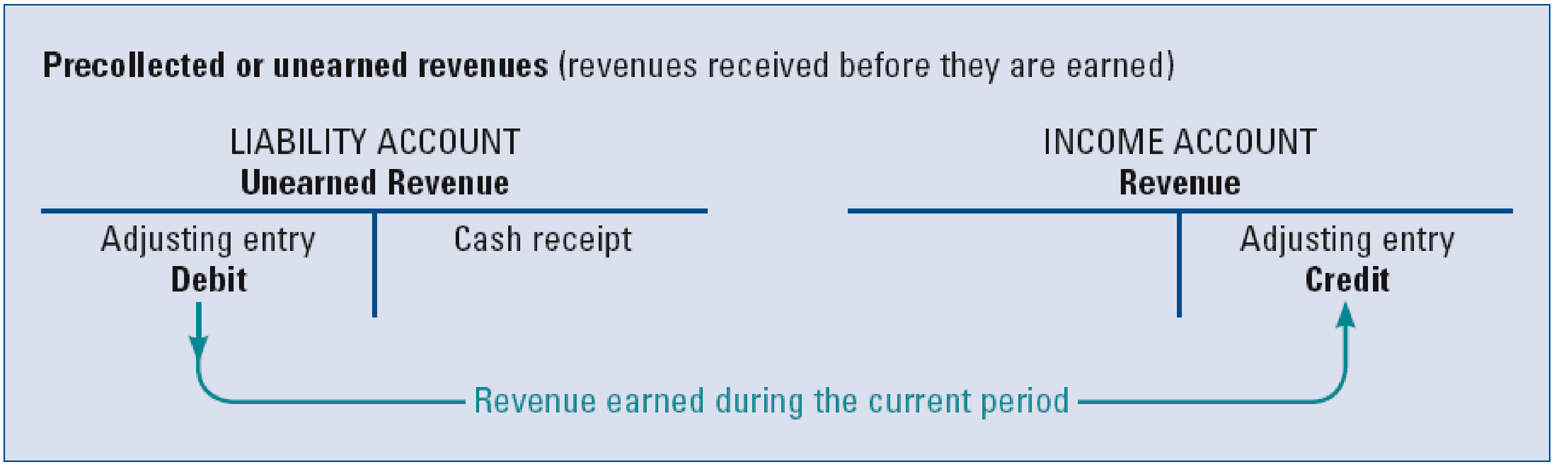
An entity may receive cash in advance for services that are to be performed in the future. Until the service is performed, a liability equal to the amount of the advance payment is reported in the balance sheet to reflect the obligation of the entity to perform future services. That is, recognition of the income (revenue) is deferred until the services are performed, at which time the entity's obligations are reduced. The adjusting process for unearned revenue is shown in figure 4.7 (p. 140).

To illustrate, recall from chapter 3 that Intellect Management Services issued a tax invoice and received a $560 advance payment plus GST of $56 on 29 June for a valuation appraisal to be completed on 2 July. The following entry was made to record the receipt of cash:

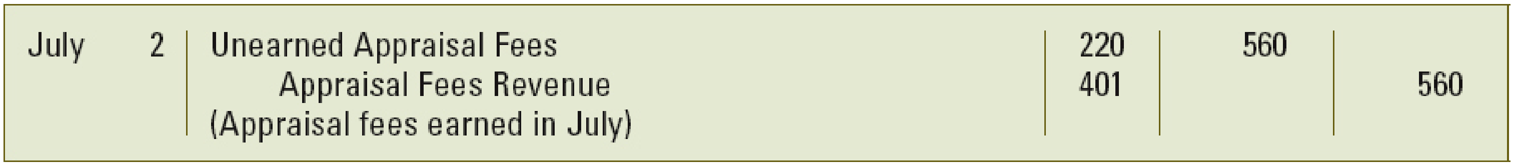


June	29	Cash at Bank	100	616	
		Unearned Appraisal Fees	220		560
		GST payable	250		56
		(Cash received for appraisals to be performed in July)			

Figure 4.7 Adjusting entries for precollected or unearned revenues



Since the appraisal will not be performed by 30 June, the credit is made to an ***unearned revenue*** account (a liability) at the time the cash is received. The income (revenue) of $560 will be recognised in July when the appraisal is performed for the client, thus reducing the entity's liabilities. Once the appraisal is completed on 2 July, an entry is made either at the time the obligation is reduced ***or*** at the end of the period as an adjusting entry when the accounts are reviewed, to transfer the appropriate portion of the advance payment to revenue as follows:



July	2	Unearned Appraisal Fees	220	560	
		Appraisal Fees Revenue	401		560
		(Appraisal fees earned in July)			

Note that the revenue is recognised in July, when the obligation is reduced, rather than in June, when the cash was received.

The receipt of cash for services to be performed in the future may have been recorded originally in a revenue account rather than a liability account. If so, an adjusting entry is needed at the end of the period to reduce the balance in the revenue account and to record a liability for the remaining portion representing services yet to be performed. The method illustrated above is preferred.

Another precollected or unearned revenue illustration (subscriptions)

The Intellect Management Services illustration contains one example of adjusting an unearned revenue account. In practice, other common precollected revenue items are rent received in advance, magazine subscriptions and advertising fees received in advance by a publisher, and deposits received from customers before merchandise is delivered.

To illustrate further the accounting for unearned revenue, another example ***unrelated to Intellect's activities*** is used. Assume that, on 8 September, the publishers of ***People of the World***, a monthly magazine, receive $264, including $24 GST, for a 1-year subscription beginning with the October issue. The company makes the following entry upon receipt of the cash:

Sept.	8	Cash at Bank	264	
		Unearned Subscriptions Revenue		240
		GST payable		24
		(Receipt of subscriptions in advance)		

On 31 December, the end of the financial year, the balance in the Unearned Subscriptions Revenue account includes 3 months (3/12) of the revenue for this period and 9 months (9/12) which will be reported as revenue in the next period. Therefore, the following adjusting entry must be made to remove $60 (3/12 × $240) from the liability account and to record the revenue in the current period:

Dec.	31	Unearned Subscriptions Revenue	60	
		Subscriptions Revenue		60
		(Adjusting entry to record subscriptions earned)		

After the two journal entries are posted, the accounts appear as follows:

Subscriptions Revenue

			31/12	Unearned Subscriptions Revenue	60

Unearned Subscriptions Revenue

31/12	Subscriptions Revenue	60	8/9	Cash at Bank	240

The adjusting entry leaves a balance of $180 in the Unearned Subscriptions Revenue account, which is reported as a liability in the balance sheet; the subscriptions revenue of $30 appears as revenue in the income statement. In the next period, an adjusting entry for $90 will be made to transfer the liability balance to revenue, as the liability is reduced when each issue of the magazine is published and sent to the subscriber.

BUSINESS KNOWLEDGE

What is the difference between the cash and accruals methods for GST accounting?

The cash basis for GST accounting can only be used by small businesses with a turnover under $1 million per annum or if you can satisfy the Australian Tax Office that it is appropriate for you, given the nature and size of your enterprise, your accounting system and how you account for income tax.

Under the cash basis of accounting, revenues and costs are recognised when money is received or paid. If you are using the cash method of accounting then your GST liability will be determined on the actual receipt of cash from your customers.

Consequently, if you are collecting GST on a quarterly basis, the GST arising with respect to cash payments received in the relevant quarter will need to be remitted to the ATO. Similarly, claims for GST refunds would be determined on the basis of cash payments made in that period.

The accruals method is based on recognition of revenues and costs as they are earned and incurred and is also referred to as invoice-based accounting. It is important to bear in mind that if you are registered on an invoice basis then you will be liable to pay your GST on all sales during the relevant GST period even if you have not collected some of your income from account customers.

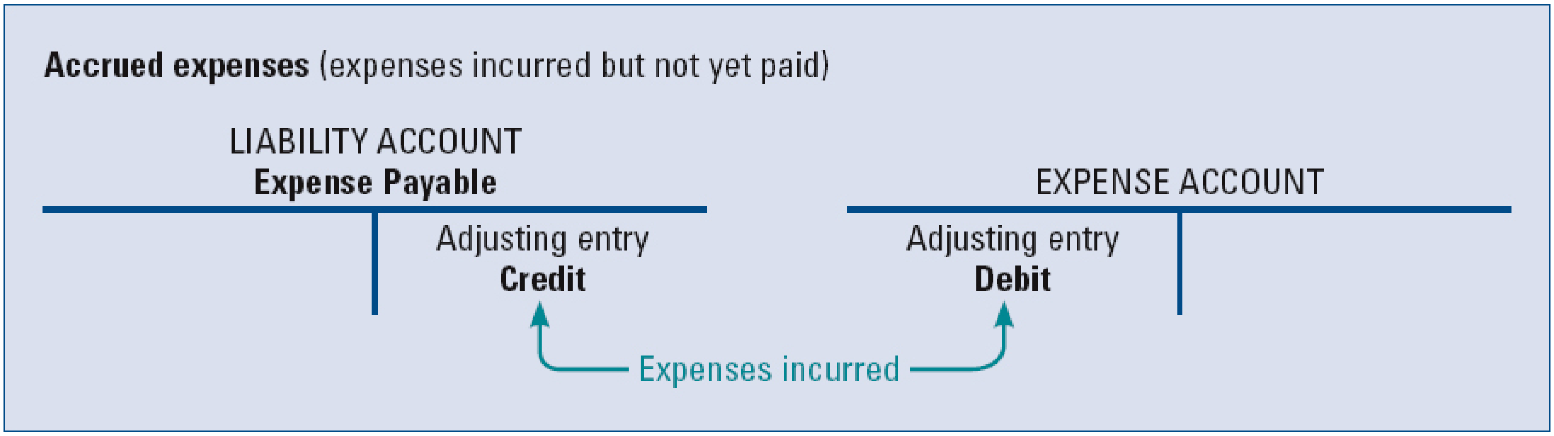
Source: The Weekly Times 2000, 'Accounting for the GST', 24 May.

Adjusting entries for accruals

Accrued or unrecorded expenses

During the period, most expenses are recorded when they are paid. At the end of the accounting period, there are usually some expenses that have been consumed but have not been recorded because payment has not yet been made. An adjusting entry is needed to recognise the expense in the period in which it is incurred rather than in the period of payment. An offsetting credit is made to a liability account to record the entity's obligation to pay for the goods or services that have been received. These items are called accrued expenses or accrued liabilities. See figure 4.8.

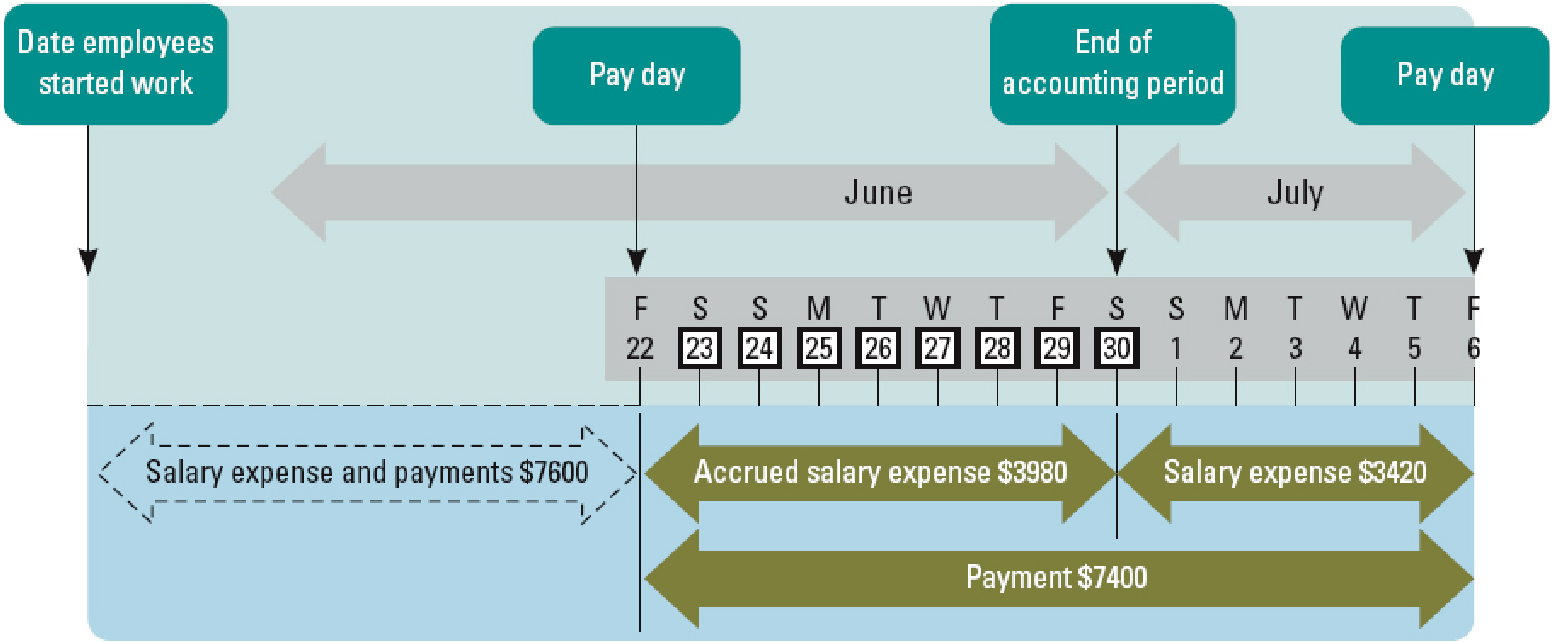
Figure 4.8 Adjusting entries for accrued and unrecorded expenses



Accrued salaries (liability)

Intellect Management Services follows the practice of paying employees every 2 weeks. On Friday, 22 June, the employees were paid $7600 for the preceding 2 weeks of service. A diagram of the salaries earned between this payment and 30 June is presented in figure 4.9.

Figure 4.9 Diagram of salaries paid and accrued



Note: The total salaries vary in each pay period because some employees work part time.

No particular problem was encountered on 22 June when salaries were paid for the period of 8 June to 22 June because both the payment and the expense occurred in the same period. The following entry was made to record that payment (note that wages and salaries are exempt from GST):

June	22	Salaries Expense	500	7 600	
		Cash at Bank	100		7 600
		(Salaries paid to employees) [Deductions from the employees' salaries are ignored for now.]			

Because the end of the period, 30 June, occurs before the next salary payment date, 6 July, an adjusting entry is required to correctly determine the expenses consumed in June and to provide a record of liabilities at the end of June. Even though the employees are not paid until 6 July, a portion of the $7400 payment (some employees work part time and the office is open 7 days a week) is for employees' services that were received in June. The entry to accrue the unpaid salaries up to 30 June is:

June (e)	30	Salaries Expense	500	3 980	
		Salaries Payable	210		3 980
		(Adjusting entry to record salaries payable from 23 June to 30 June)			

The accounts after the adjusting entry is posted are as follows:

Salaries Payable **210**

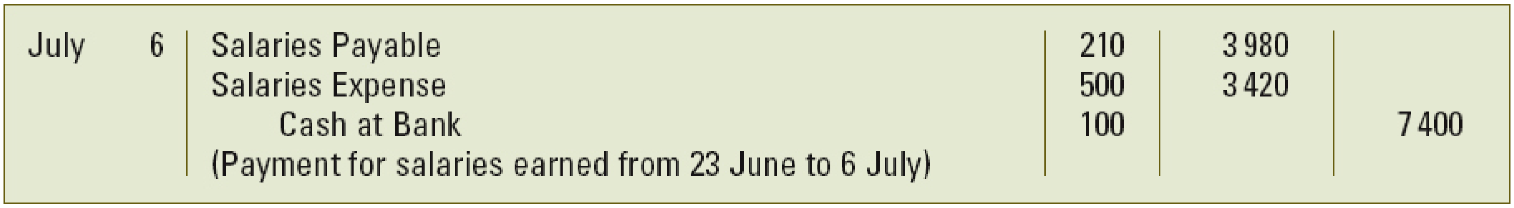
			30/6	Salary Expense	**3 980**

Salaries Expense **500**

22/6	Cash at Bank	7 600			
30/6	Salaries Payable	**3 980**			

The adjusting entry records an expense ($3980) for the services received in June and reported in the June income statement along with the salaries previously paid ($7600). The credit of $3980 in the Salaries Payable account reflects ***the amount owed*** to the employees for services performed during the period 23 June to 30 June and is reported as a liability in the balance sheet. Failure to make the 30 June adjusting entry results in an understatement of expenses and an overstatement of profit for June; and in the balance sheet, liabilities would be understated and equity would be overstated.

The liability of $3980 is eliminated on 6 July, when the payment of $7400 is made to the employees. The $3420 earned by the employees in July is recorded as an expense, as shown in the following entry:

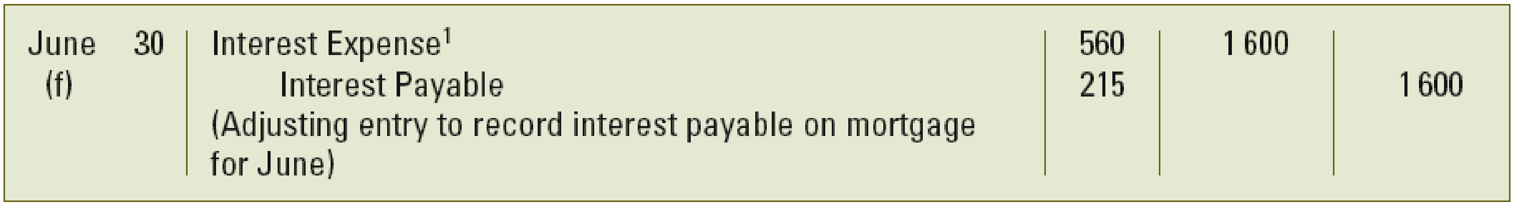


July	6	Salaries Payable	210	3 980	
		Salaries Expense	500	3 420	
		Cash at Bank	100		7 400
		(Payment for salaries earned from 23 June to 6 July)			

The effect of the above entries is to recognise the expense and liability in the period that an expense is incurred rather than in the period that payment is made to the employees.

Accrued interest (liability)

On 2 June, Intellect Management Services financed a portion of the land and building purchase with a 20-year, $240 000, 8% mortgage. An annual payment of $12 000 plus accrued interest is made on 2 June of each subsequent year. Interest expense accumulates daily. Therefore, Intellect must prepare an adjusting entry on 30 June to record the interest expense incurred in June and to recognise a liability for the unpaid interest. The entry is:

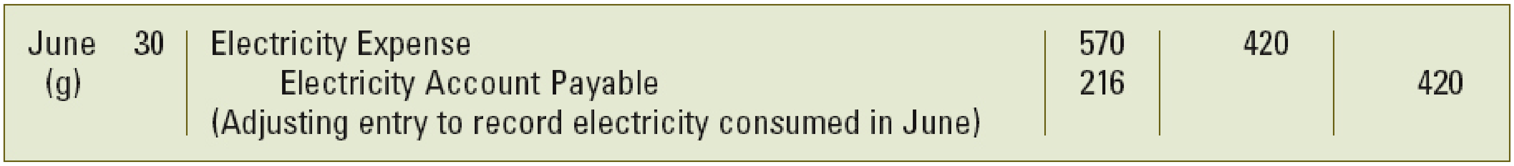


June (f)	30	Interest Expense[1]	560	1 600	
		Interest Payable	215		1 600
		(Adjusting entry to record interest payable on mortgage for June)			

Note that only the $1600 additional liability for the accrued interest is recorded on 30 June. A Mortgage Payable account is already in the records as a result of making the 2 June entry to record the asset purchase. Interest expense is shown as an expense in the income statement for June, and interest payable is reported as a liability on the 30 June balance sheet. GST is not charged on interest payments. As the interest payable is an estimate and is not based on a statement from the financial institution, interest payable is credited rather than the Mortgage Payable account.

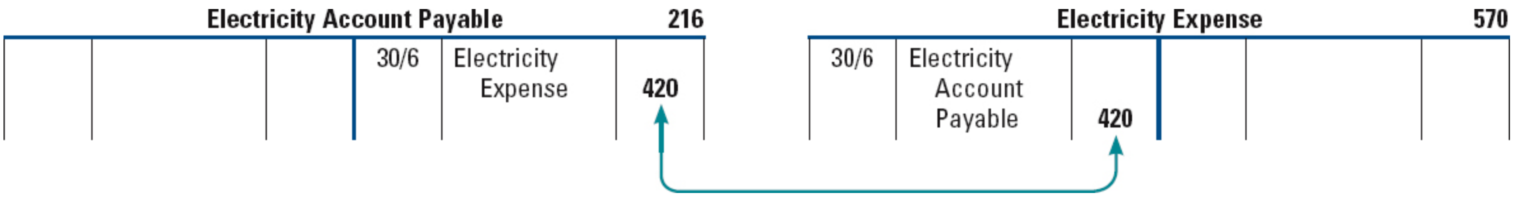
Accrued electricity (liability)

The electricity supplier invoices its customers after the service has been provided. Assume that Intellect Management Services makes an estimate of $420 for electricity used in June. The adjusting entry to record the expense in June is shown below:[2]



June (g)	30	Electricity Expense	570	420	
		Electricity Account Payable	216		420
		(Adjusting entry to record electricity consumed in June)			

This entry increases expenses and liabilities by equal amounts. No GST is recorded because the electricity supplier has not yet issued a tax invoice for electricity. Note that even though the electricity bill may not be received until July or August, the adjusting entry on 30 June is made so that the expense and liability are properly reflected in the June financial statements. After this entry is posted, the accounts are as follows:

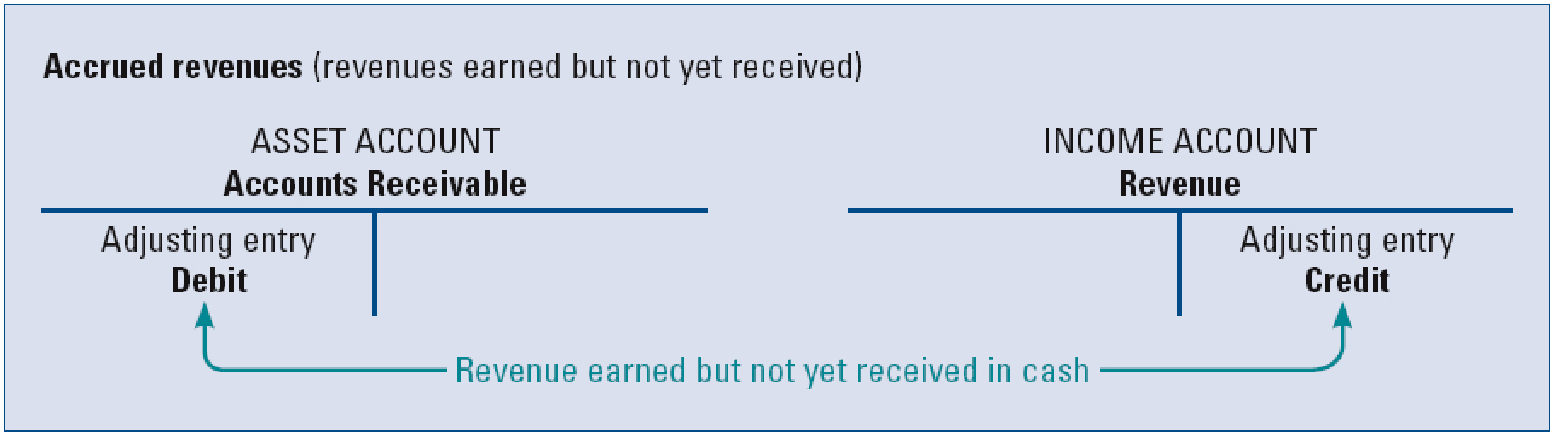


Unrecorded or accrued revenue

In most cases when a service is performed by the entity, an entry is made to recognise the transaction. Even if cash is not received immediately, an account receivable is established in order to maintain a record of amounts owed to the entity and to recognise revenue. No entry is required at the end of a period since the receivable and revenue have been recorded. There are occasions in most entities, however, when an increase in economic benefits has occurred as a result of revenue earned but not yet recorded. This may occur where work has been done for a client before year end, but they have not been billed as the job is ongoing.

Revenue that is unrecorded at the end of the period must be included in the accounting records by debiting a receivable and crediting a revenue account. Such items are often called accrued revenues or accrued receivables. The adjusting entry for accrued revenue is summarised in figure 4.10.

Figure 4.10 Adjusting entries for accrued revenues



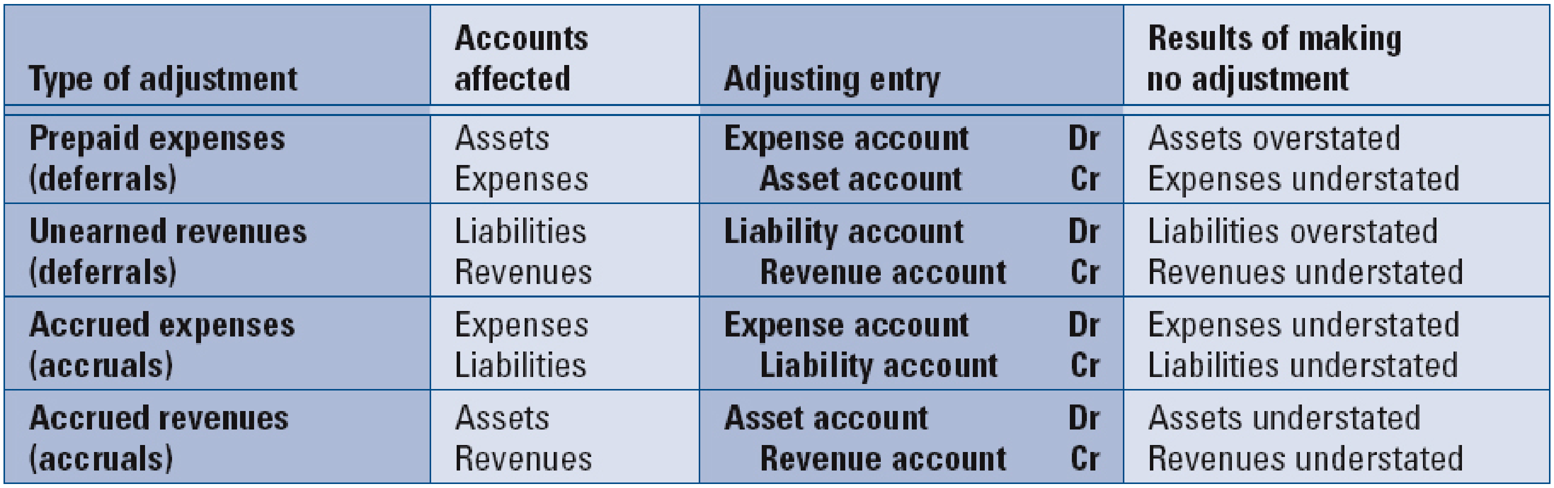
To illustrate, Intellect Management Services signed an agreement on 1 June to provide marketing services for a monthly fee of $800. Although the services fee represents an increase in economic benefits for the entity in one month, the agreement provides for the benefits (i.e. the fee) to be received on the fifth day of the following month. No entry was made on 1 June, when the agreement was made, because there was no increase or decrease in economic benefits. However, as services are performed, the benefits are gradually increased. By 30 June, the full fee of $800 is receivable (assuming that a tax invoice has not yet been issued) and is recorded by the entry below:[3]

June	30	Accounts Receivable	104	800	
(h)		Marketing Services Revenue	402		800
		(Adjusting entry to record marketing services fee receivable for June)			

The account receivable is shown in the balance sheet as an asset, and the revenue account is reported in the income statement. GST is not recorded at this point as no tax invoice has been issued. The GST of $80 will be collected and recorded on 5 July.

Figure 4.11 summarises the four types of adjustments which may be necessary at the end of the accounting period. Included in this summary is a list of the consequences of not making adjusting entries.

Figure 4.11 Summary of end-of-period adjustments



Type of adjustment	Accounts affected	Adjusting entry	Results of making no adjustment
Prepaid expenses (deferrals)	Assets Expenses	**Expense account Dr** **Asset account Cr**	Assets overstated Expenses understated
Unearned revenues (deferrals)	Liabilities Revenues	**Liability account Dr** **Revenue account Cr**	Liabilities overstated Revenues understated
Accrued expenses (accruals)	Expenses Liabilities	**Expense account Dr** **Liability account Cr**	Expenses understated Liabilities understated
Accrued revenues (accruals)	Assets Revenues	**Asset account Dr** **Revenue account Cr**	Assets understated Revenues understated

The completed adjusting entries for Intellect Management Services are summarised in figure 4.12. The appropriate letter, e.g. (a), (b), is indicated in the figure to help you refer to earlier discussion in the chapter.

Figure 4.12 Summary of adjusting entries for Intellect Management Services

INTELLECT MANAGEMENT SERVICES
Summary of adjusting entries made

Date	Particulars	Post Ref	Debit	Credit
June 30	Insurance Expense	521	80	
(a)	Prepaid Insurance	110		80
	(Adjusting entry to record portion of insurance consumed)			
30	Office Supplies Expense	530	160	
(b)	Office Supplies	111		160
	(Adjusting entry to record supplies consumed in June)			
30	Depreciation Expense – Office Equipment	540	200	
(c)	Accumulated Depreciation – Office Equipment	171		200
	(Adjusting entry to record depreciation of equipment)			
30	Depreciation Expense – Building	541	500	
(d)	Accumulated Depreciation – Building	161		500
	(Adjusting entry to record depreciation of building)			
30	Salaries Expense	500	3 980	
(e)	Salaries Payable	210		3 980
	(Adjusting entry to record salaries payable from 23 June to 30 June)			
30	Interest Expense	560	1 600	
(f)	Interest Payable	215		1 600
	(Adjusting entry to record interest payable on mortgage for June)			
30	Electricity Expense	570	420	
(g)	Electricity Account Payable	216		420
	(Adjusting entry to record electricity consumed in June)			
30	Accounts Receivable	104	800	
(h)	Marketing Services Revenue	402		800
	(Adjusting entry to record marketing services fee receivable for June)			

In computerised accounting systems, once adjusting entries have been entered, the computer is able to prepare the adjusted trial balance. With certain adjusting entries, such as depreciation, accrued interest and expired insurance, computer packages can calculate the correct amounts. In some packages, e.g. MYOB, end-of-period adjustments are called ‘recurring transactions’ and the computer automatically makes adjustments at period end, based on the instructions given to it.

LEARNING CHECK

- ☐ There are two major categories of adjusting entries — deferrals and accruals.
- ☐ Deferrals are expenses paid for before they are consumed (e.g. rent paid in advance) and revenues which have been received in advance but not yet earned (e.g. magazine subscription fees received in advance).

- Accruals are expenses incurred but not yet paid for (e.g. interest to be paid on a loan) and revenues earned but not yet received in cash (e.g. interest accumulated but not yet received).
- Goods and services that are paid for in advance and are expected to provide benefits beyond the current period are ***normally*** recorded as assets at the time of payment. At the end of the accounting period, the part of the cost that has been consumed is transferred to an expense account.
- If cash has been received in advance for services, a liability is reported in the balance sheet. The income will be recognised when the service is performed, thus reducing the entity's liability.
- Adjusting entries are needed for accruals to recognise revenue in the period when it is earned but not recorded and an expense in the period in which it is consumed but not recorded.
- Income (including revenue) unearned but recorded at the end of a period must be excluded from the accounting records by an adjusting entry.
- Prepaid expenses recorded as an asset must be adjusted to reflect the expense consumed during the accounting period.

4.4 Adjusted trial balance

LO 4 **Prepare an adjusted trial balance and financial statements.**

The ledger accounts of Intellect Management Services (in T-account format) as they would appear after the adjusting entries are posted are shown in figure 4.13. The ledger accounts are then balanced, and a trial balance is prepared as the next step in the accounting cycle (see figure 4.1, p. 133). This trial balance is called an **adjusted trial balance**, and it seeks to verify the equality of debits and credits in the accounts ***after*** posting the adjusting entries. An adjusted trial balance taken from the ledger of Intellect Management Services on 30 June is presented in figure 4.14 (p. 148).

Figure 4.13 General ledger after adjusting entries are posted

ASSETS

Cash at Bank 100

1/6	240 000	2/6	90 000
23/6	550	3/6	2 112
29/6	616	5/6	11 920
30/6	9 240	6/6	264
		22/6	7 600
		23/6	1 200
		27/6	1 364
		30/6	176

Accounts Receivable 104

15/6	9 240	30/6	9 240
19/6	11 880		
30/6 (h)	800		

Prepaid Insurance 110

3/6	1 920	30/6 (a)	80

Office Supplies 111

5/6	1 240	30/6 (b)	160

GST Receivable 120

2/6	30 000		
3/6	192		
5/6	124		
5/6	1 920		
6/6	24		
30/6	16		

Land 150

2/6	120 000		

Building 160

2/6	180 000		

Accum. Depr. – Building 161

		30/6 (d)	500

Office Equipment 170

5/6	19 200		

Accum. Depr. – Off. Equip. 171

		30/6 (c)	200

LIABILITIES

Accounts Payable 200

27/6	1 364	5/6	1 364
		5/6	9 200

Salaries Payable 210

		30/6 (e)	3 980

Interest Payable 215

Appraisal Fees Revenue 401

		23/6	500

Marketing Services Revenue 402

		30/6 (h)	800

Salaries Expense 500

22/6	7 600		

		30/6 (f)	1 600

Electricity Account Payable 216

		30/6 (g)	420

Unearned Appraisal Fees 220

		29/6	560

GST Payable 250

		15/6	840
		19/6	1 080
		23/6	50
		29/6	56

Mortgage Payable 260

		2/6	240 000

EQUITY

M. Mooney, Capital 300

		1/6	240 000

M. Mooney, Drawings 310

23/6	1 200		

Management Services Revenue 400

		15/6	8 400
		19/6	10 800

30/6 (e)	3 980		

Telephone Expense 510

30/6	160		

Advertising Expense 520

6/6	240		

Insurance Expense 521

30/6 (a)	80		

Office Supplies Expense 530

30/6 (b)	160		

Depr. Exp. – Off. Equip. 540

30/6 (c)	200		

Depr. Exp. – Building 541

30/6 (d)	500		

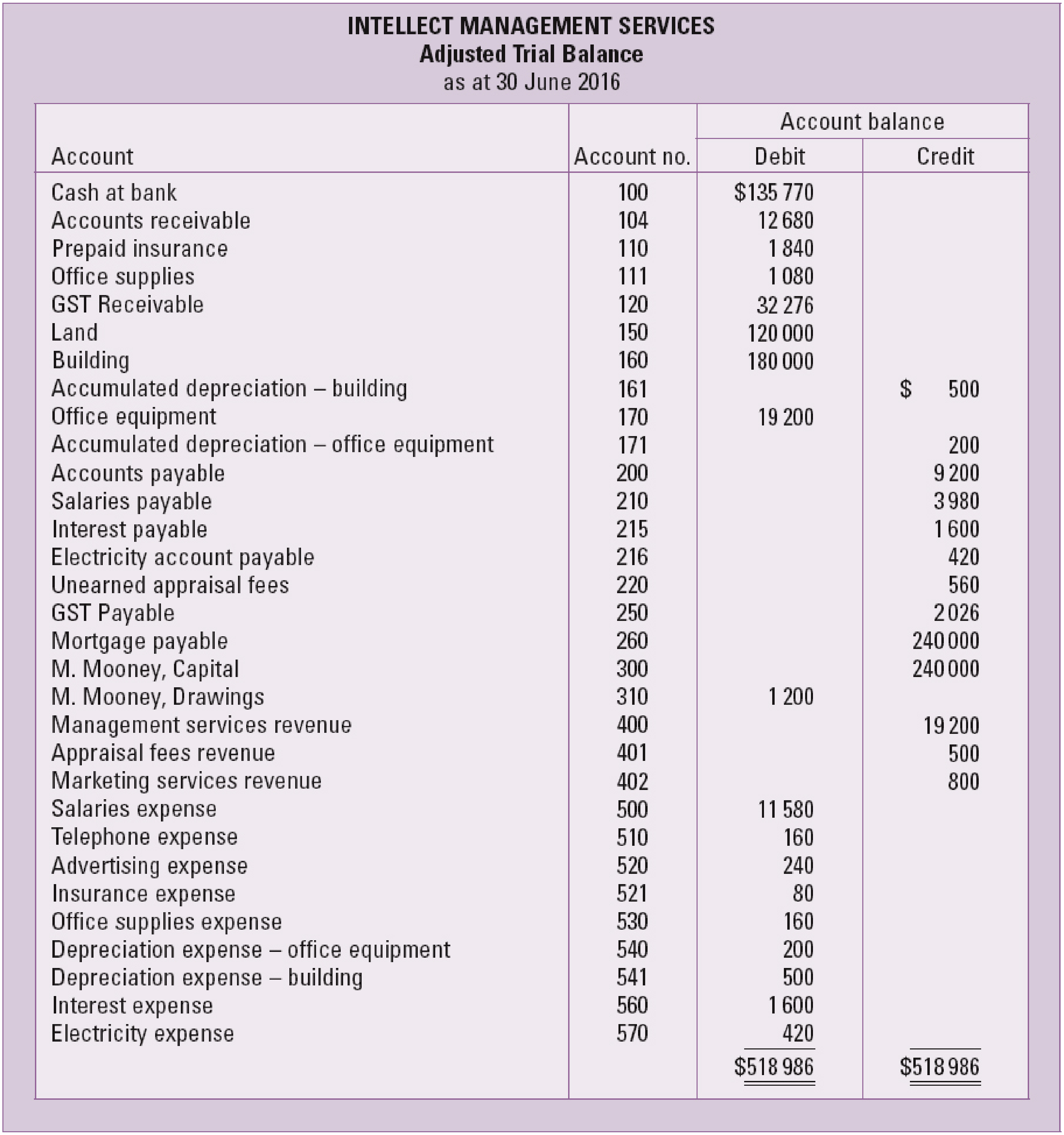
Interest Expense 560

30/6 (f)	1 600		

Electricity Expense 570

30/6 (g)	420		

Figure 4.14 Adjusted trial balance



INTELLECT MANAGEMENT SERVICES
Adjusted Trial Balance
as at 30 June 2016

Account	Account no.	Account balance	
		Debit	Credit
Cash at bank	100	$135 770	
Accounts receivable	104	12 680	
Prepaid insurance	110	1 840	
Office supplies	111	1 080	
GST Receivable	120	32 276	
Land	150	120 000	
Building	160	180 000	
Accumulated depreciation – building	161		$ 500
Office equipment	170	19 200	
Accumulated depreciation – office equipment	171		200
Accounts payable	200		9 200
Salaries payable	210		3 980
Interest payable	215		1 600
Electricity account payable	216		420
Unearned appraisal fees	220		560
GST Payable	250		2 026
Mortgage payable	260		240 000
M. Mooney, Capital	300		240 000
M. Mooney, Drawings	310	1 200	
Management services revenue	400		19 200
Appraisal fees revenue	401		500
Marketing services revenue	402		800
Salaries expense	500	11 580	
Telephone expense	510	160	
Advertising expense	520	240	
Insurance expense	521	80	
Office supplies expense	530	160	
Depreciation expense – office equipment	540	200	
Depreciation expense – building	541	500	
Interest expense	560	1 600	
Electricity expense	570	420	
		$518 986	$518 986

Preparation of financial statements

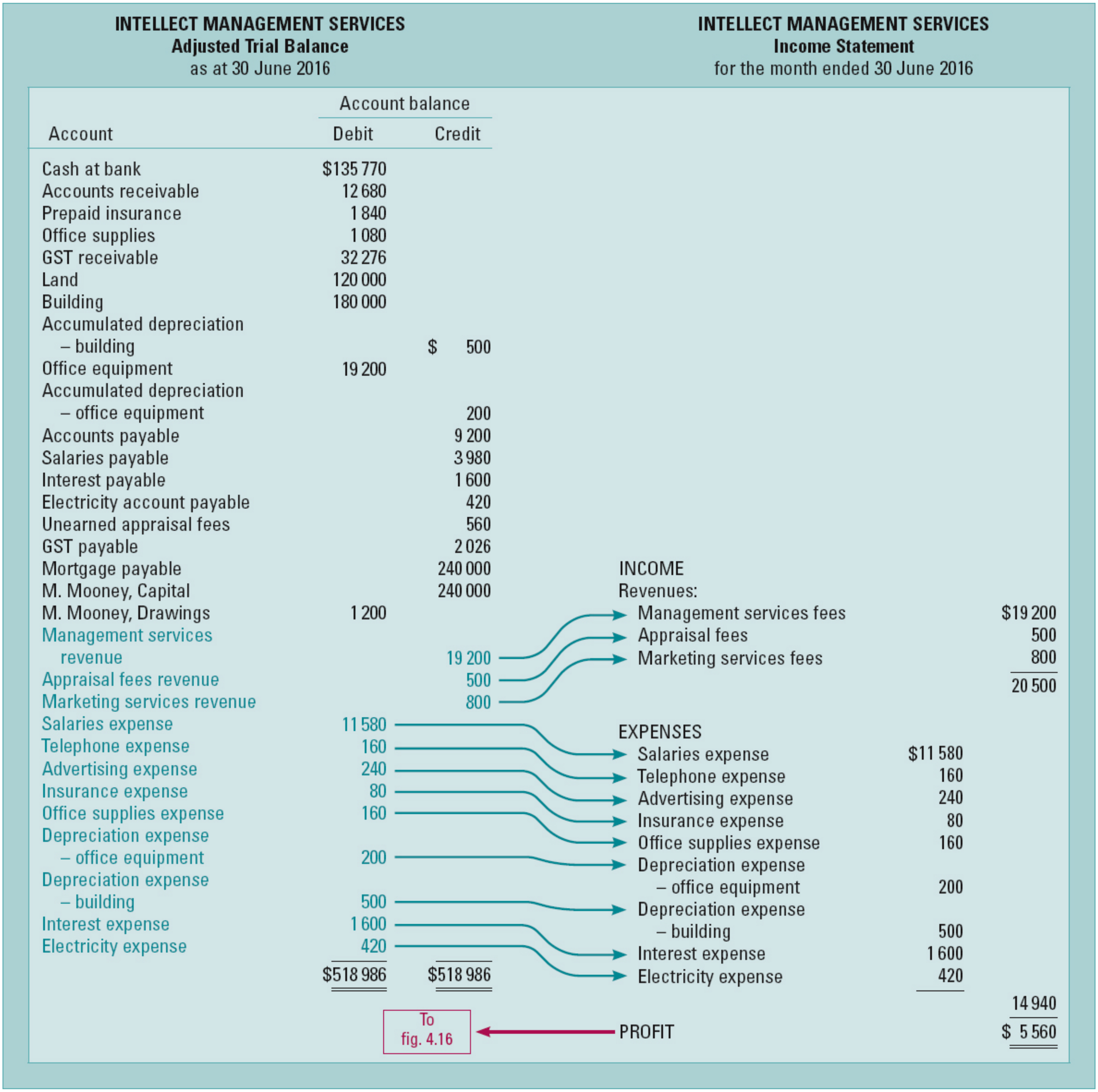
After the adjusting process is completed, the adjusted trial balance may be used to prepare financial statements. However, if the entity's accounting year finishes on 30 June, closing entries are made before preparing the statements. Discussion of closing entries is deferred until chapter 5.

Income statement

The income statement shown in figure 4.15 for Intellect Management Services was prepared from the adjusted trial balance in figure 4.14. Note that the heading shows the name of the entity, the type of financial statement, and the length of time it took to generate the reported profit or loss.

The income statement normally is prepared before the statement of changes in equity and the balance sheet because the profit or loss is needed to complete the equity section. For example, in this illustration a profit of $5560 is derived. This means the sum of the credit balances in the income accounts ($20 500) exceeds the sum of the debit balances in the expense accounts ($14 940) by $5560. The profit of $5560 must be added to equity to equalise the total liabilities and equity with the total assets. In other words, during the period there was an increase in net assets from earning a profit. This increase in net assets (assets minus liabilities) belongs to the owner and should be added to the capital account in the balance sheet. Details of movements in equity are shown in the statement of changes in equity.

Figure 4.15 Preparation of the income statement from adjusted trial balance



INTELLECT MANAGEMENT SERVICES
Adjusted Trial Balance
as at 30 June 2016

Account	Account balance Debit	 Credit
Cash at bank	$135 770	
Accounts receivable	12 680	
Prepaid insurance	1 840	
Office supplies	1 080	
GST receivable	32 276	
Land	120 000	
Building	180 000	
Accumulated depreciation – building		$ 500
Office equipment	19 200	
Accumulated depreciation – office equipment		200
Accounts payable		9 200
Salaries payable		3 980
Interest payable		1 600
Electricity account payable		420
Unearned appraisal fees		560
GST payable		2 026
Mortgage payable		240 000
M. Mooney, Capital		240 000
M. Mooney, Drawings	1 200	
Management services revenue		19 200
Appraisal fees revenue		500
Marketing services revenue		800
Salaries expense	11 580	
Telephone expense	160	
Advertising expense	240	
Insurance expense	80	
Office supplies expense	160	
Depreciation expense – office equipment	200	
Depreciation expense – building	500	
Interest expense	1 600	
Electricity expense	420	
	$518 986	$518 986

To fig. 4.16

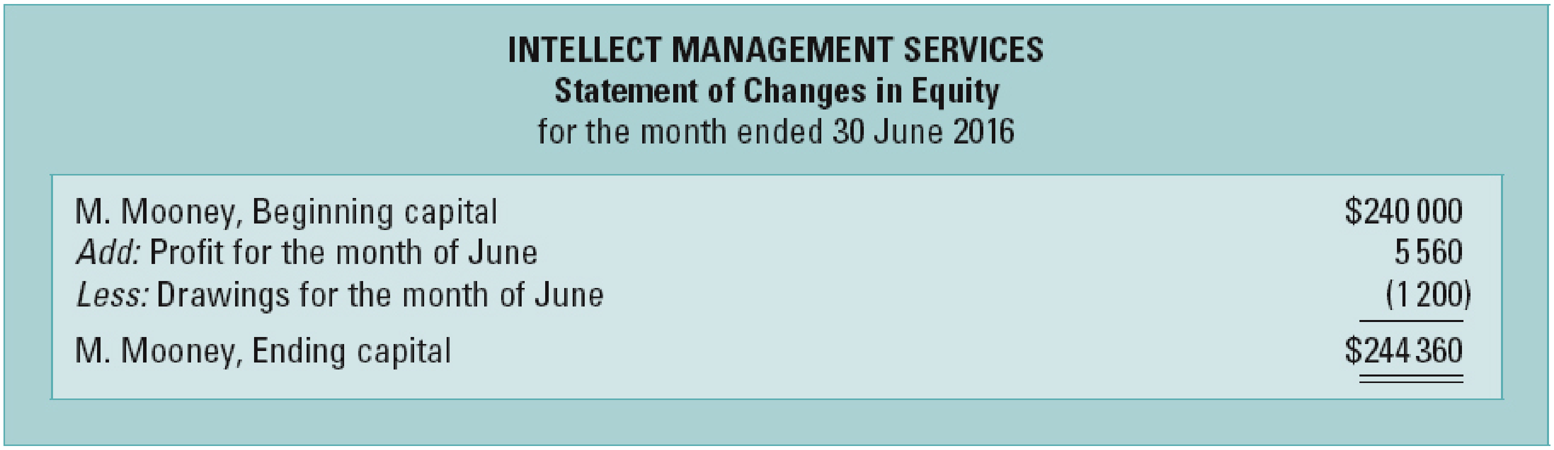
INTELLECT MANAGEMENT SERVICES
Income Statement
for the month ended 30 June 2016

INCOME		
Revenues:		
Management services fees		$19 200
Appraisal fees		500
Marketing services fees		800
		20 500
EXPENSES		
Salaries expense	$11 580	
Telephone expense	160	
Advertising expense	240	
Insurance expense	80	
Office supplies expense	160	
Depreciation expense – office equipment	200	
Depreciation expense – building	500	
Interest expense	1 600	
Electricity expense	420	
		14 940
PROFIT		$ 5 560

Statement of changes in equity

Figure 4.15 presents the income statement of Intellect Management Services, showing a profit of $5560. The statement of changes in equity in figure 4.16 (overleaf) shows this profit added to the equity of the owner and any withdrawals of profits made by the owner to show the balance of the equity at the end of the period. This equity balance of $244 360 must then equal the net assets (assets minus liabilities) as reported in the balance sheet.

Figure 4.16 Preparation of the statement of changes in equity from equity accounts in the adjusted trial balance and the income statement



INTELLECT MANAGEMENT SERVICES
Statement of Changes in Equity
for the month ended 30 June 2016

M. Mooney, Beginning capital	$240 000
Add: Profit for the month of June	5 560
Less: Drawings for the month of June	(1 200)
M. Mooney, Ending capital	$244 360

Balance sheet

In figure 4.17 (p. 151), the balance sheet for Intellect Management Services is prepared from the adjusted trial balance. The heading indicates the name of the entity, the title of the statement and the statement date. Recall that the statement reports the financial position on a specified date, 30 June in this illustration, whereas the income statement reports the flow of revenues and expenses during the month of June, and the statement of changes in equity shows the movement in the entity's capital account for the period.

There are three major categories of accounts reported in the balance sheet: assets, liabilities and equity. When a number of accounts are reported, statement users have found the information more useful if the assets and liabilities are further classified into several important subcategories:

Assets	**Liabilities**
Current assets	Current liabilities
Non-current assets:	Non-current liabilities
Investments	
Property, plant and equipment	
Intangible assets	
Other assets	

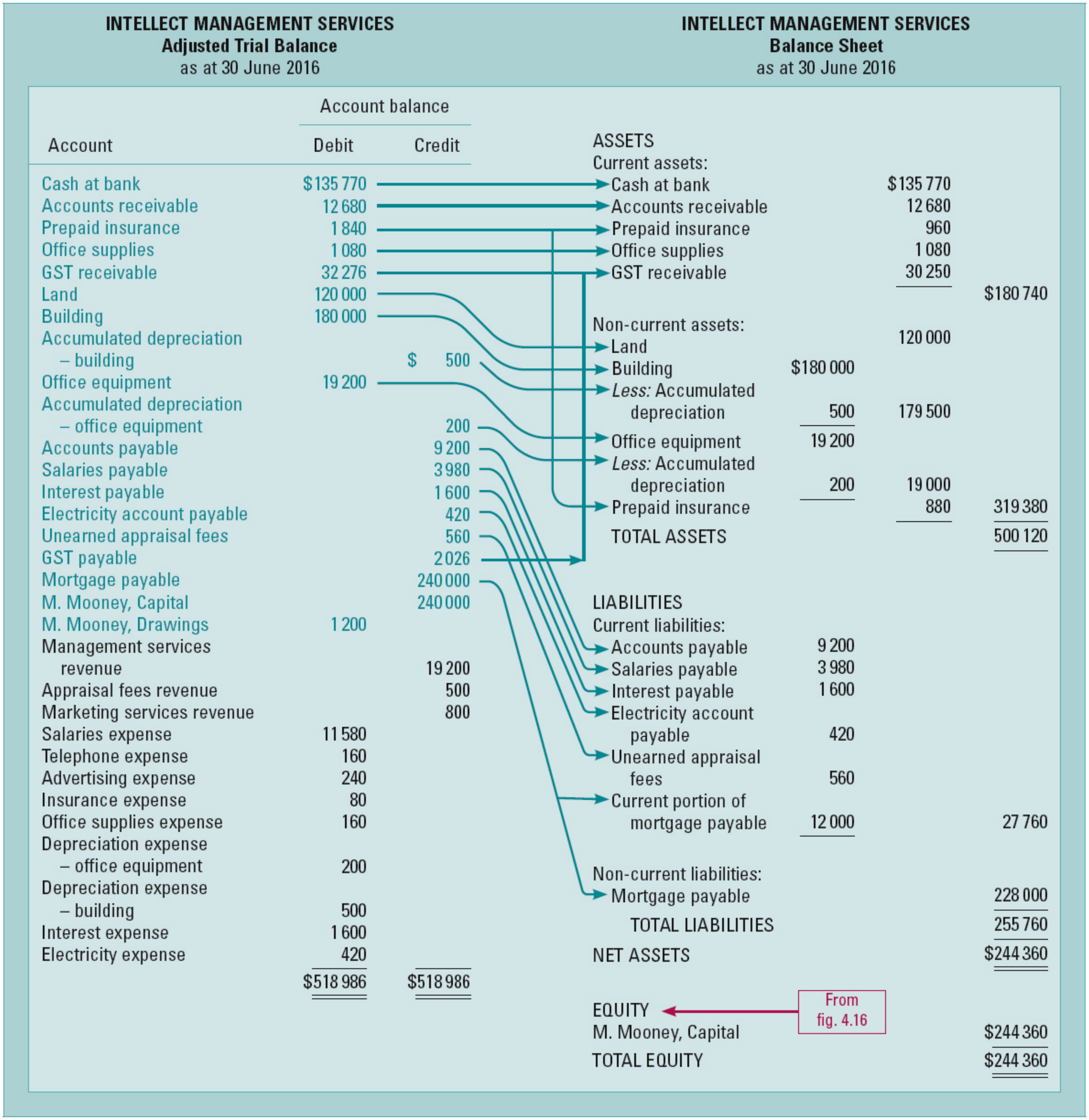
These categories facilitate the evaluation of financial data and are arranged in the statement so that important relationships between two subcategories are shown. For example, the **liquidity** of a business entity — its ability to satisfy short-term obligations as they fall due — is of primary concern to most statement readers. To help readers evaluate an entity's liquidity, assets and liabilities are classified as current (short-term) and non-current (long-term). The excess of current assets over current liabilities is called **working capital**. The use of these categories to analyse an entity's liquidity and to make relevant economic decisions is discussed in more detail in a later chapter.

In figure 4.17 two asset and liability categories are shown — current and non-current. These are discussed in the next section.

LEARNING CHECK

☐ An adjusted trial balance seeks to verify the equality of debits and credits in the ledger accounts ***after*** posting the adjusting entries to the general ledger.

Figure 4.17 Preparation of the balance sheet from adjusted trial balance and statement of changes in equity in figure 4.16



INTELLECT MANAGEMENT SERVICES
Adjusted Trial Balance
as at 30 June 2016

Account	Account balance Debit	Account balance Credit
Cash at bank	$135 770	
Accounts receivable	12 680	
Prepaid insurance	1 840	
Office supplies	1 080	
GST receivable	32 276	
Land	120 000	
Building	180 000	
Accumulated depreciation – building		$ 500
Office equipment	19 200	
Accumulated depreciation – office equipment		200
Accounts payable		9 200
Salaries payable		3 980
Interest payable		1 600
Electricity account payable		420
Unearned appraisal fees		560
GST payable		2 026
Mortgage payable		240 000
M. Mooney, Capital		240 000
M. Mooney, Drawings	1 200	
Management services revenue		19 200
Appraisal fees revenue		500
Marketing services revenue		800
Salaries expense	11 580	
Telephone expense	160	
Advertising expense	240	
Insurance expense	80	
Office supplies expense	160	
Depreciation expense – office equipment	200	
Depreciation expense – building	500	
Interest expense	1 600	
Electricity expense	420	
	$518 986	$518 986

INTELLECT MANAGEMENT SERVICES
Balance Sheet
as at 30 June 2016

ASSETS			
Current assets:			
Cash at bank		$135 770	
Accounts receivable		12 680	
Prepaid insurance		960	
Office supplies		1 080	
GST receivable		30 250	
			$180 740
Non-current assets:			
Land		120 000	
Building	$180 000		
Less: Accumulated depreciation	500	179 500	
Office equipment	19 200		
Less: Accumulated depreciation	200	19 000	
Prepaid insurance		880	319 380
TOTAL ASSETS			500 120
LIABILITIES			
Current liabilities:			
Accounts payable	9 200		
Salaries payable	3 980		
Interest payable	1 600		
Electricity account payable	420		
Unearned appraisal fees	560		
Current portion of mortgage payable	12 000		27 760
Non-current liabilities:			
Mortgage payable			228 000
TOTAL LIABILITIES			255 760
NET ASSETS			$244 360
EQUITY			
M. Mooney, Capital			$244 360
TOTAL EQUITY			$244 360

From fig. 4.16

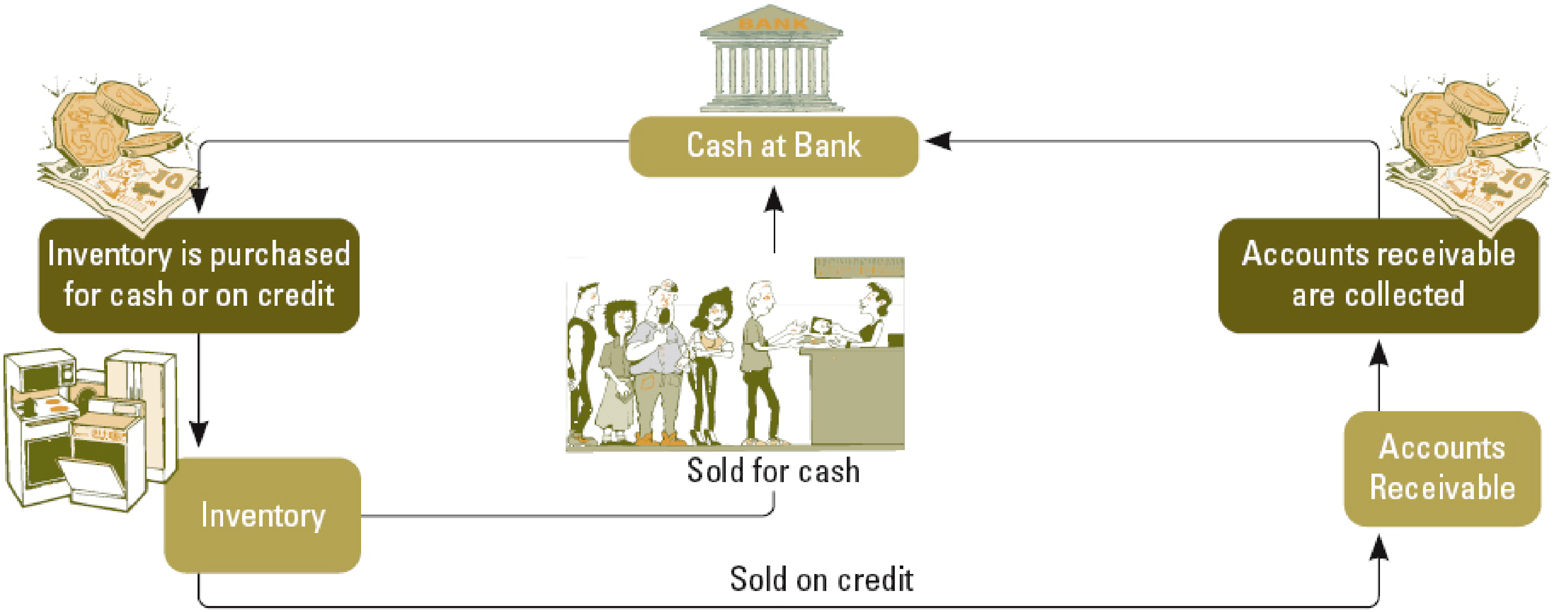
4.5 Distinguishing current and non-current assets and liabilities

LO 5 **Describe the difference between current and non-current assets and liabilities.**

Current assets

Current assets are cash and other types of assets that are held primarily for the purpose of sale or trading, or are reasonably expected to be converted to cash, sold or consumed by a business within its next operating cycle, or are expected to be realised within 12 months after the end of the entity's reporting period. For a retail business, the **operating cycle** is the average length of time it takes to acquire inventory, sell the inventory to customers and ultimately collect cash from the sale (see figure 4.18).

Figure 4.18 The operating cycle



The cash collected from customers is used to pay for the inventory purchased and other operating activities of the entity, and then the cycle starts again. Any resource, including cash, that has been committed to a specific long-term use is excluded from the current asset category.

The length of the operating cycle varies for different entities and depends on various factors, such as management policies (e.g. length of credit period granted to customers), the type of inventory involved, and the nature of the entity's activities. For example, a grocery store should have a shorter operating cycle than a jewellery store because it sells its inventory faster. Service organisations do not buy or hold inventory, so their operating cycle involves using cash to buy supplies and services, using those supplies and services to perform services for customers, and then collecting cash from customers.

For many retail or service businesses, the operating cycle is less than 1 year, so a 1-year rule is commonly applied in classifying current assets. However, businesses such as those involved with large construction projects, distilled products and forestry operations have operating cycles that are longer than 1 year. For them, assets which are within the operating cycle may be classified as current, even though the operating cycle extends well beyond 1 year. Nevertheless, apart from cash, current assets are generally those held for the purpose of being traded or which are expected to be realised within 12 months.

Current assets may be listed in the order of their ***liquidity***, which refers to the average length of time it takes to convert a non-cash asset into cash. The following major items, in their order of liquidity, are commonly found in current assets: (1) cash at bank, (2) marketable securities, (3) accounts receivable (or trade debtors), (4) inventory, (5) prepayments.

Marketable securities are investments that can be converted back into cash for use in conducting the short-term activities of the entity. Some prepaid assets may expire or be consumed over a number of years. Inclusion of these as current assets is supported to the extent that such prepayments will be consumed (expensed) within the next 12 months. Any prepayment to be consumed beyond the next 12 months generally should be classified as a non-current asset. Note that in figure 4.17 prepaid insurance has been split into its current ($960) element and non-current ($880) element, and GST payable has been offset against GST receivable to provide the net GST receivable from the Australian Taxation Office (ATO).

Non-current assets

Investments. Assets classified as **investments** normally consist of shares and debentures and other long-term financial assets, land held for speculation, and cash or other assets set aside for specific long-term purposes such as a retirement fund for the entity's employees.

Property, plant and equipment. This category consists of assets of a physical nature (tangible) that are used in the normal activities of the entity to produce goods, sell goods or provide services to customers. Other terms are used occasionally for this classification, such as tangible assets and fixed assets. **Property, plant and equipment** are expected to be used by the business entity for a number of years and are not held for resale. Examples include land, buildings, machinery, motor vehicles, furniture, fixtures and computer equipment used in running the business.

Except for land, such assets have limited useful lives, and their costs are depreciated over their estimated useful lives. The depreciation recorded to date on an asset is shown in the ***Accumulated Depreciation*** account, which is deducted from the cost of the asset to reflect the asset's carrying amount. Because land has an unlimited life, it is not depreciated.

Intangible assets. An **intangible asset** is one that usually does not have a physical substance but is expected to provide future benefits to the entity. Intangibles derive their value from the rights that possession and use confer on their holder. Like property, plant and equipment, intangibles are recorded initially at cost or other faithfully representative measure, which is allocated to future periods over the asset's useful life. Examples are patents, copyrights, franchises, brand names and secret processes.

Other assets. The other assets category is used to report those assets that do not readily fit into one of the categories described previously. Some examples are plant and equipment no longer being used in the business but held for future disposal, and development expenditure in a mining operation.

Current liabilities

Current liabilities are obligations of the entity that are reasonably expected to be settled in the entity's normal operating cycle or held for the purpose of being traded, or are due to be settled within 12 months after the end of the reporting period. Most current liabilities will require payment in the short term, such as accounts payable (trade creditors), interest payable and other accrued liabilities. However, some current liabilities, such as cash advances received from customers, do not require the payment of cash but are settled by the delivery of goods or the performance of a service. Also included as a current liability is the portion of long-term debt that is due within 1 year.

To illustrate, recall that Intellect Management Services undertook a $240 000 mortgage payable to partly finance the purchase of certain assets. The contract required Intellect to make a $12 000 payment plus accrued interest on 2 June for the next 20 years. In figure 4.17, the $12 000 due within the next year is reported with the current liabilities of the business. The remaining $228 000 due beyond 12 months after the end of the reporting period is reported as a non-current liability.

Within the current liability section, in practice there is no agreed uniform order of presentation. One approach is to list the accounts from the largest amount due to the smallest. Another approach commonly used is to list the accounts payable first, followed by taxes payable, accrued liabilities and the current portion of long-term debt.

Non-current or long-term liabilities

Non-current liabilities are those obligations of the entity that do not require payment within the entity's operating cycle or within 12 months after the end of the reporting period. In other words, liabilities not classified as current are reported in this section.

In the case of Intellect Management Services, the only long-term debt is that portion of the mortgage due after 1 year. Note in figure 4.17 that only the interest that has accrued up to 30 June on the $240 000 outstanding debt is reported as interest payable. In other words, the total interest that will be paid over the life of the mortgage is not recognised as a liability at this time. Interest accrues with the passage of time and is not reported as a liability until it is accrued. The interest accrued on both the long-term and short-term portion of the debt is reported as a current liability because the interest payment is due on 2 June, which is 11 months after the end of the reporting period.

LEARNING CHECK

☐ Current assets are expected to be used up within 12 months.
☐ Non-current assets are expected to provide benefits for more than 12 months.
☐ Current liabilities are expected to be settled within 12 months.
☐ Non-current liabilities are expected to take longer than 12 months to settle.

4.6 Preparing financial statements from a worksheet

LO 6 **Use a worksheet to prepare the financial statements.**

To this point, adjusting entries have been made directly in the journal and then posted to the ledger, after which an adjusted trial balance and financial statements are prepared from the adjusted accounts. In practice, formal recording of adjusting entries does not occur except on the last day of the accounting period, i.e. end of financial year. Whenever financial statements are required for internal management purposes during the period, it is usual to prepare a worksheet, either manually or electronically, from which such statements can be prepared. The worksheet may still be used even at the end of the period.

The **worksheet** has a number of important functions:

- it assembles in one place all the information needed to adjust the accounts and prepare the financial statements
- it aids in the preparation of interim financial statements for internal use when adjusting and closing entries are not required in the formal accounting records
- it contains the information needed to close off the income and expense accounts (temporary accounts) at the end of the period. Closing entries are covered in chapter 5.

The worksheet does not replace the financial statements; it is simply a tool used to gather and organise the information needed to complete these steps of the accounting cycle. It is a convenient way of preparing interim financial statements for management and owners when adjusting and closing entries are not made.

Computerised accounting systems today can make the use of a worksheet unnecessary since all accounting reports can be kept up to date after processing transactions. Nevertheless, if worksheets are to be prepared, electronic spreadsheets can greatly speed up the process and increase reliability. Once all adjusting data have been entered, the adjusted trial balance, income statement and balance sheet columns are calculated automatically, and the financial statements are prepared automatically. Any errors made in entering adjustment data can be amended quickly.

Preparation of the worksheet

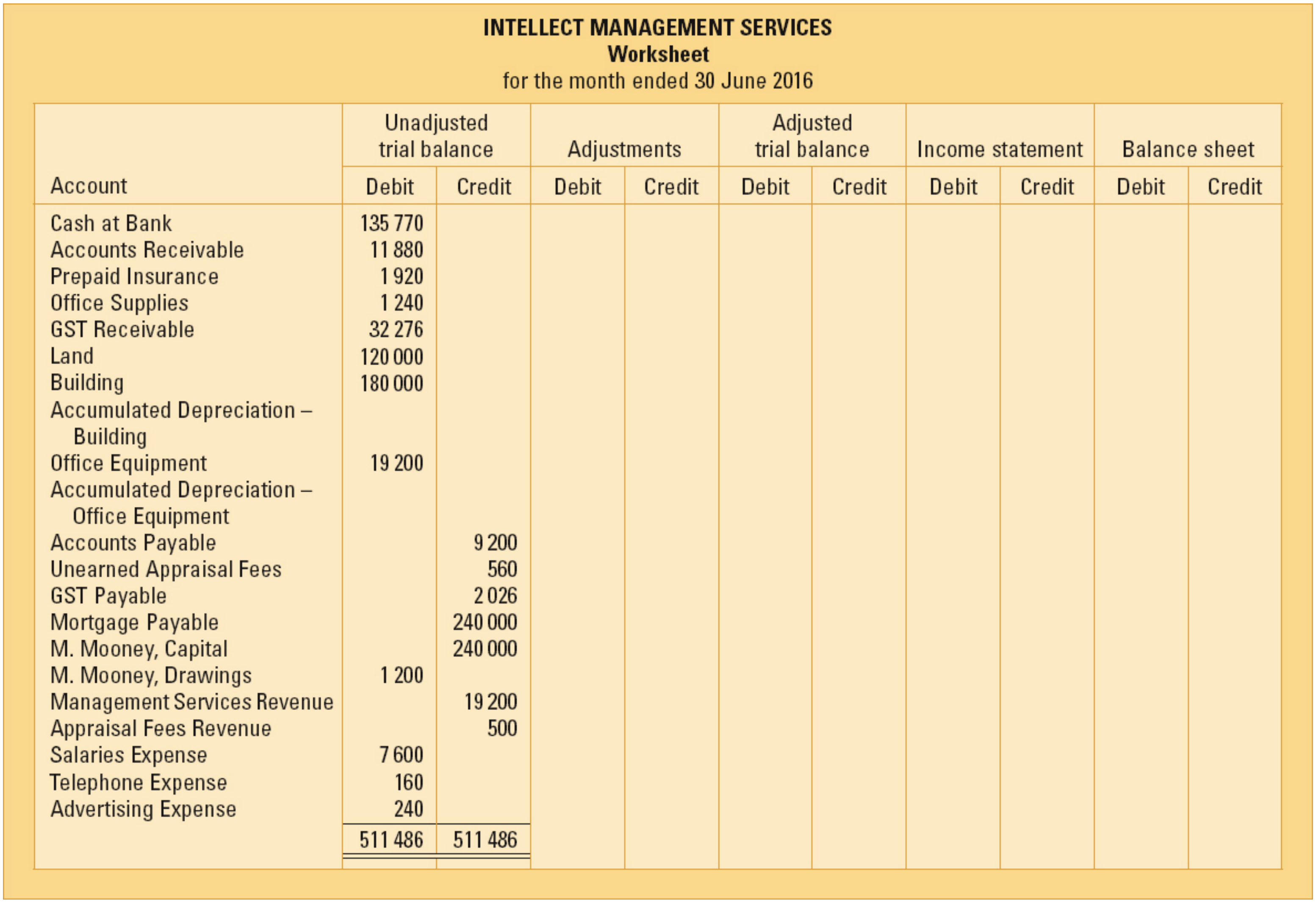
The basic format of a worksheet is shown in figure 4.19. The heading contains the name of the entity, the title of the document, i.e. 'worksheet', and the period it covers. The first column is used for the account titles. This column is followed by five sets of money columns for (1) the unadjusted trial balance, (2) adjusting entries, (3) the adjusted trial balance, (4) the income statement and (5) the balance sheet. Each set consists of a debit column and a credit column, making a total of ten columns for entering dollar amounts. The steps followed in preparing a worksheet are illustrated and described by using the information for Intellect Management Services.

Step 1. Enter the ledger account titles and balances in the account title and unadjusted trial balance columns. After all the transactions that occurred during the period are posted, a trial balance is prepared from the general ledger to verify the equality of debit and credit account balances, as shown in figure 4.19. This is an unadjusted trial balance because it is taken before any adjusting entries have been posted to the ledger.

Step 2. Enter the necessary adjusting entries in the adjustments columns. The adjusting entries are entered in the worksheet in the adjustments columns. After the worksheet is completed, the adjusting entries are recorded in the journal if financial statements are to be prepared at the end of the period. (If preparing interim financial statements, there is no need to record adjusting entries in the general journal.) To aid in journalising the entries and locating errors, each adjusting entry is identified by a separate letter so that the debit part of the entry can be cross-referenced to the credit part of the entry. The adjustments made in figure 4.20 (p. 156) are the same as those illustrated in figure 4.12 (p. 145) for Intellect Management Services. Adjustments were required for the following items:

Entry (a) Prepaid insurance expired, $80.
Entry (b) Office supplies used, $160.
Entry (c) Depreciation on office equipment, $200.
Entry (d) Depreciation on the building, $500.
Entry (e) Salaries earned but not paid, $3980.
Entry (f) Accrued interest on mortgage payable, $1600.

Figure 4.19 Worksheet format with unadjusted trial balance entered (step 1 in the preparation of a worksheet)



INTELLECT MANAGEMENT SERVICES
Worksheet
for the month ended 30 June 2016

Account	Unadjusted trial balance		Adjustments		Adjusted trial balance		Income statement		Balance sheet	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	135 770									
Accounts Receivable	11 880									
Prepaid Insurance	1 920									
Office Supplies	1 240									
GST Receivable	32 276									
Land	120 000									
Building	180 000									
Accumulated Depreciation – Building										
Office Equipment	19 200									
Accumulated Depreciation – Office Equipment										
Accounts Payable		9 200								
Unearned Appraisal Fees		560								
GST Payable		2 026								
Mortgage Payable		240 000								
M. Mooney, Capital		240 000								
M. Mooney, Drawings	1 200									
Management Services Revenue		19 200								
Appraisal Fees Revenue		500								
Salaries Expense	7 600									
Telephone Expense	160									
Advertising Expense	240									
	511 486	511 486								

Entry (g) Electricity used but not paid for, $420.
Entry (h) Revenue not received from marketing services, $800.

When entering the adjustments, if an account already has a balance in the unadjusted trial balance columns, the adjusting amount is entered on the same line. The account titles required by adjusting entries that were not listed in the unadjusted trial balance columns are added on lines immediately below the trial balance account titles.

For example, in adjusting entry (a) the Insurance Expense account is debited and the Prepaid Insurance account is credited for $80. To enter the debit amount of this entry, it is necessary to add an Insurance Expense account on the line below the trial balance because the account had a zero balance before the adjusting entry and consequently was not included in the unadjusted trial balance. The $80 credit is entered in the adjustments credit column on the same line as the Prepaid Insurance account balance of $1920. Thus, in this entry it is necessary to add only one new account. However, in adjusting entry (f) (interest on mortgage), observe that both accounts affected by the entry must be entered below the unadjusted trial balance. The appropriate account titles were selected from the chart of accounts presented in chapter 3 on pages 83–4.

After all the adjustments are entered, the two adjustments columns are totalled to prove that the total debit adjustments equal the total credit adjustments.

Step 3. Prepare an adjusted trial balance. In this step, each account balance in the unadjusted trial balance columns is combined with the corresponding adjustments, if any, in the adjustments columns, and the resulting balance is extended on the same line to the appropriate adjusted trial balance column, as shown in figure 4.20 (p. 156). The combined amounts entered in these two columns will be the same as the ledger account balances after the adjusting entries are recorded in the journal and posted to the ledger. Combining the amounts entered on each line — that is, adding or subtracting across the worksheet horizontally — is called **crossadding**. The crossadding must be done very carefully because it is easy to make an error.

Figure 4.20 Adjusting entries entered in adjustments columns and account balances extended to the adjusted trial balance columns (steps 2 and 3 in the preparation of a worksheet)

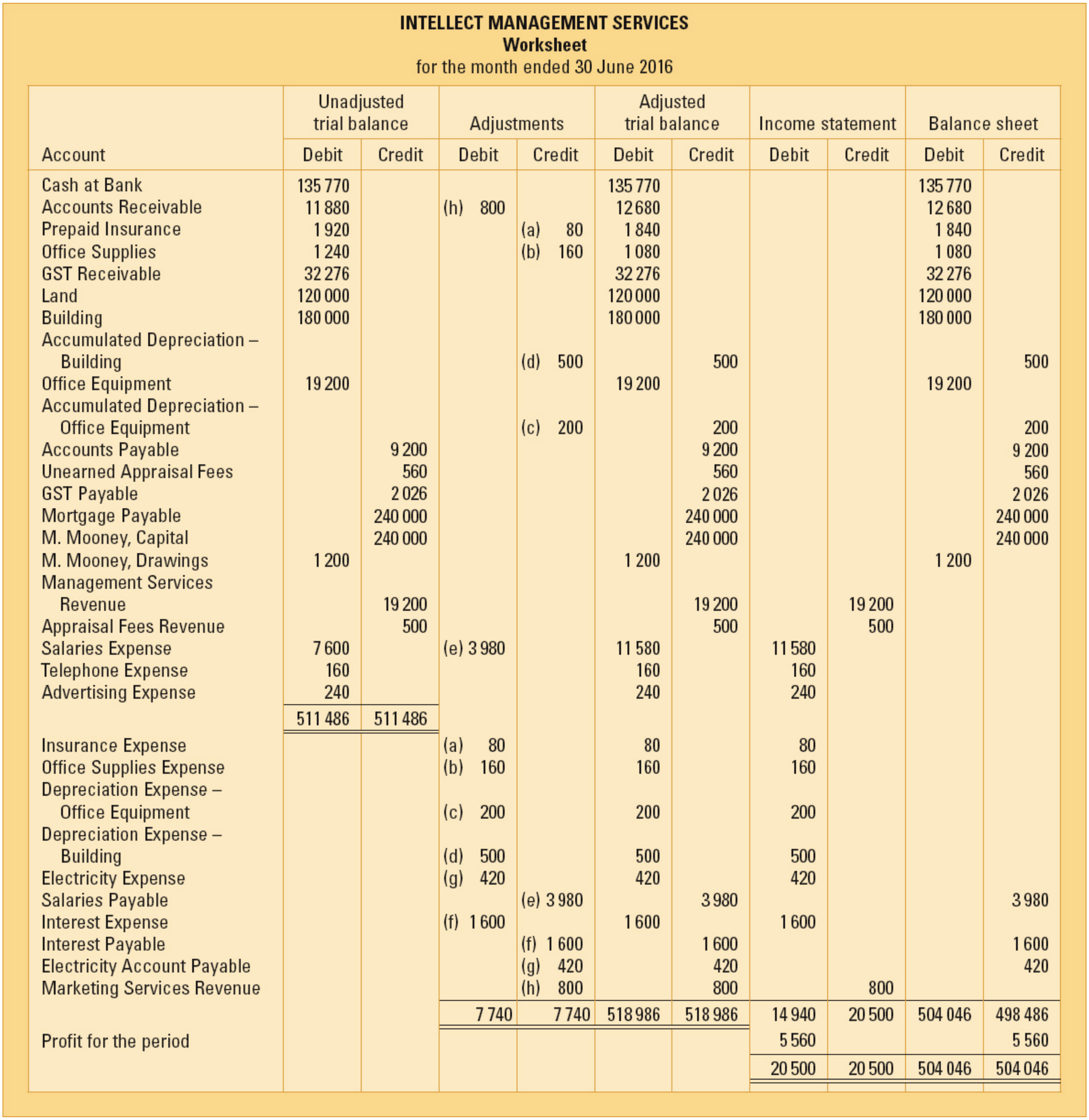
INTELLECT MANAGEMENT SERVICES
Worksheet
for the month ended 30 June 2016

Account	Unadjusted trial balance		Adjustments		Adjusted trial balance		Income statement		Balance sheet	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	135 770				135 770					
Accounts Receivable	11 880		(h) 800		12 680					
Prepaid Insurance	1 920			(a) 80	1 840					
Office Supplies	1 240			(b) 160	1 080					
GST Receivable	32 276				32 276					
Land	120 000				120 000					
Building	180 000				180 000					
Accumulated Depreciation – Building				(d) 500		500				
Office Equipment	19 200				19 200					
Accumulated Depreciation – Office Equipment				(c) 200		200				
Accounts Payable		9 200				9 200				
Unearned Appraisal Fees		560				560				
GST Payable		2 026				2 026				
Mortgage Payable		240 000				240 000				
M. Mooney, Capital		240 000				240 000				
M. Mooney, Drawings	1 200				1 200					
Management Services Revenue		19 200				19 200				
Appraisal Fees Revenue		500				500				
Salaries Expense	7 600		(e) 3 980		11 580					
Telephone Expense	160				160					
Advertising Expense	240				240					
	511 486	511 486								
Insurance Expense			(a) 80		80					
Office Supplies Expense			(b) 160		160					
Depreciation Expense – Office Equipment			(c) 200		200					
Depreciation Expense – Building			(d) 500		500					
Electricity Expense			(g) 420		420					
Salaries Payable				(e) 3 980		3 980				
Interest Expense			(f) 1 600		1 600					
Interest Payable				(f) 1 600		1 600				
Electricity Account Payable				(g) 420		420				
Marketing Services Revenue				(h) 800		800				
			7 740	7 740	518 986	518 986				

For those accounts unaffected by the adjustments, such as Cash at Bank, Accounts Payable and Management Services Revenue, the balance is simply extended directly to the appropriate debit or credit column in the adjusted trial balance columns. If an account has a debit balance in the unadjusted trial balance column, a debit adjustment will increase the balance (see the Salaries Expense account), whereas a credit adjustment will decrease the balance (see the Prepaid Insurance account). An account with a credit balance is increased by a credit adjustment and decreased by a debit adjustment. In some cases, an account may not have a balance in the unadjusted trial balance columns, but an adjustment is made to the account. In such cases, the amount of the adjustment is extended directly to the adjusted trial balance column. Examples are those accounts added below the unadjusted trial balance. After all adjusted account balances have been determined, the equality of debits and credits is verified by totalling the two columns.

Step 4. Extend every account balance listed in the adjusted trial balance columns to its proper financial statement column. Every account balance listed in the adjusted trial balance columns is extended to either the income statement columns or the balance sheet columns, as shown in figure 4.21.

Figure 4.21 Account balances extended to financial statement columns and totals calculated (steps 4 and 5 in the preparation of a worksheet)



INTELLECT MANAGEMENT SERVICES
Worksheet
for the month ended 30 June 2016

	Unadjusted trial balance		Adjustments		Adjusted trial balance		Income statement		Balance sheet	
Account	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	135 770				135 770				135 770	
Accounts Receivable	11 880		(h) 800		12 680				12 680	
Prepaid Insurance	1 920			(a) 80	1 840				1 840	
Office Supplies	1 240			(b) 160	1 080				1 080	
GST Receivable	32 276				32 276				32 276	
Land	120 000				120 000				120 000	
Building	180 000				180 000				180 000	
Accumulated Depreciation – Building				(d) 500		500				500
Office Equipment	19 200				19 200				19 200	
Accumulated Depreciation – Office Equipment				(c) 200		200				200
Accounts Payable		9 200				9 200				9 200
Unearned Appraisal Fees		560				560				560
GST Payable		2 026				2 026				2 026
Mortgage Payable		240 000				240 000				240 000
M. Mooney, Capital		240 000				240 000				240 000
M. Mooney, Drawings	1 200				1 200				1 200	
Management Services Revenue		19 200				19 200		19 200		
Appraisal Fees Revenue		500				500		500		
Salaries Expense	7 600		(e) 3 980		11 580		11 580			
Telephone Expense	160				160		160			
Advertising Expense	240				240		240			
	511 486	511 486								
Insurance Expense			(a) 80		80		80			
Office Supplies Expense			(b) 160		160		160			
Depreciation Expense – Office Equipment			(c) 200		200		200			
Depreciation Expense – Building			(d) 500		500		500			
Electricity Expense			(g) 420		420		420			
Salaries Payable				(e) 3 980		3 980				3 980
Interest Expense			(f) 1 600		1 600		1 600			
Interest Payable				(f) 1 600		1 600				1 600
Electricity Account Payable				(g) 420		420				420
Marketing Services Revenue				(h) 800		800		800		
			7 740	7 740	518 986	518 986	14 940	20 500	504 046	498 486
Profit for the period							5 560			5 560
							20 500	20 500	504 046	504 046

Income (revenue) accounts are extended to the income statement credit column, and expense accounts are extended to the income statement debit column. Asset, liability and equity accounts are extended to the proper balance sheet debit or credit column. In other words, accounts are sorted on the basis of their financial statement classification in this part of the process. The GST Payable account is shown in the credit column of the balance sheet, and the GST Receivable is shown in the debit column.

To avoid leaving out an account, the process should start by extending the first account listed, which is usually Cash at Bank, and then working vertically down the worksheet line by line. As a word of caution, the accounts listed in the unadjusted trial balance are in the order shown in the balance sheet and the income statement. However, the accounts added below the unadjusted trial balance must be analysed to determine whether the balance is to be extended to the balance sheet or income statement columns. Note that the balance of the Drawings account is extended to the balance sheet debit column rather than to the income statement debit column.

Step 5. Total the two income statement columns and the two balance sheet columns. Calculate the difference between the totals of the two income statement columns and enter this as a balancing amount in both the income statement and balance sheet columns. Calculate the four column totals again with the balancing amount included. After all the amounts have been extended to either the income statement or the balance sheet columns, the four columns are totalled and their amounts entered at the bottom of each column. The profit or loss for the period is determined by taking the difference between the totals of the two income statement columns as shown in figure 4.21. The calculation in our illustration is:

Total of the credit column	$20 500
Total of the debit column	14 940
Difference (= profit)	$ 5 560

In this illustration, the income (revenues) ($20 500) exceeded the expenses ($14 940), resulting in a profit of $5560. This difference is entered in the income statement debit column to balance the two columns and is also entered on the same line in the balance sheet credit column because profit for the period is an increase in equity. Extending the profit of $5560 to the balance sheet credit column updates the equity in the business to the end of the period. On the same line in the account title column, a caption ‘Profit for the period’ is entered to identify the nature of the item being entered in the two sets of columns.

The four columns are totalled again with the profit of $5560 included. If the debit and credit columns under the balance sheet heading are not equal, there is an error in extending the amounts from the adjusted trial balance columns.

If the income statement debit column had exceeded the credit column, a loss for the period would be indicated. In this case, the difference between the two columns would be captioned ‘Loss for the period’, and that difference entered in the income statement credit column and the balance sheet debit column.

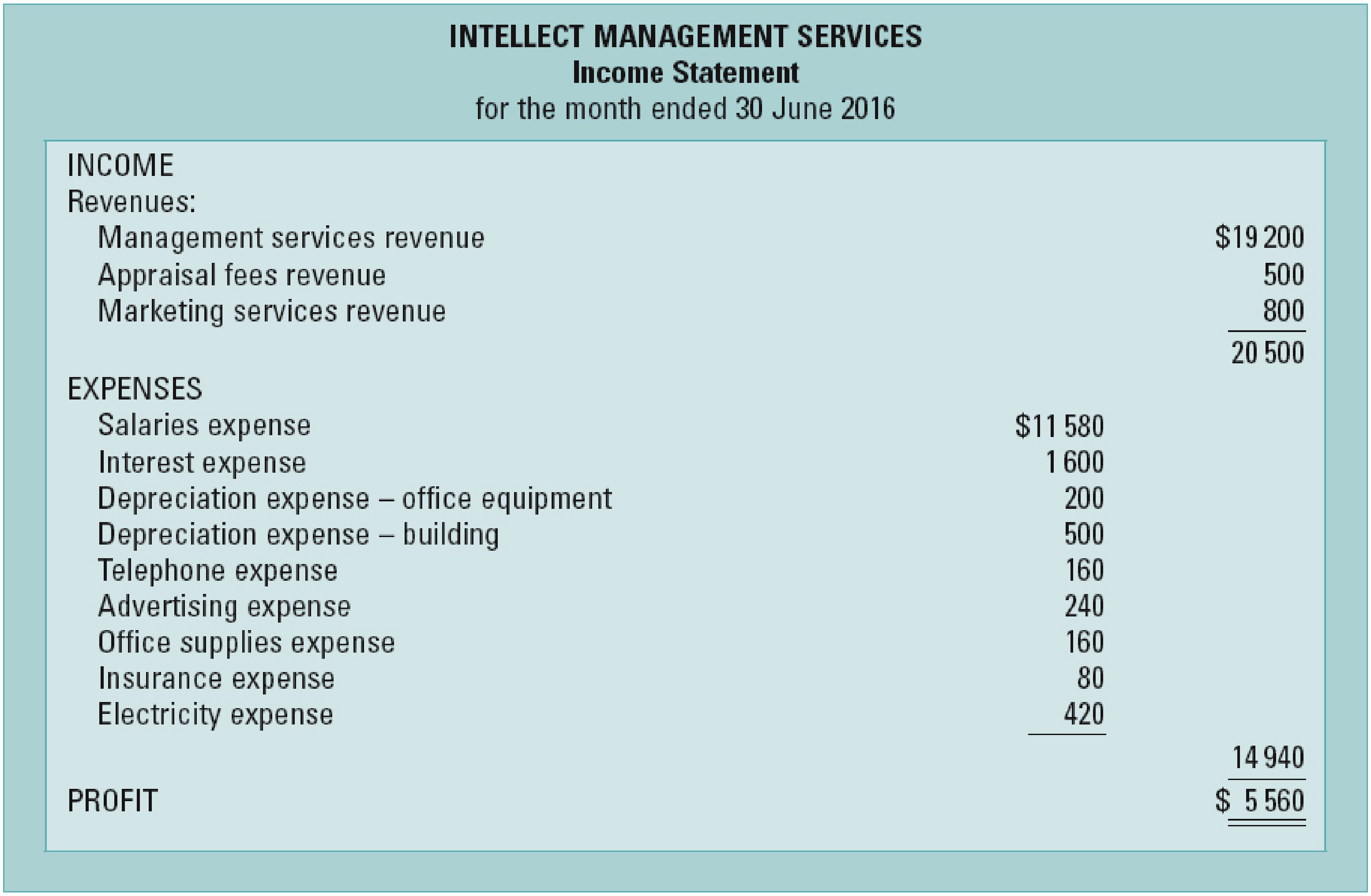
Totalling the debit and credit columns as work proceeds across the worksheet does not ensure that an error has not been made. For example (as discussed in chapter 3), not all errors in the accounts are uncovered by the trial balance. Needed adjustments may have been omitted entirely or the wrong adjusting amounts may have been entered in the worksheet. In step 4, an amount may be extended to the wrong column — e.g. extending the credit balance in the Unearned Appraisal Fees account (a liability) to the income statement credit column. This will not destroy the equality of debits and credits, but it will result in an overstatement in revenues, an understatement in liabilities, and an overstatement in equity.

Preparation of financial statements

The completed worksheet is used at the end of the financial period to prepare the financial statements and can be used as a basis for journalising adjusting and closing entries.

Because account balances are already sorted between the income statement and the balance sheet in the worksheet, preparation of the financial statements is a relatively easy step. The income statement (figure 4.22) is prepared from account balances listed in the two income statement columns in figure 4.21 (p. 157). The statement of changes in equity (figure 4.23) and the balance sheet (figure 4.24, p. 160) are prepared from items contained in the balance sheet columns of figure 4.21.

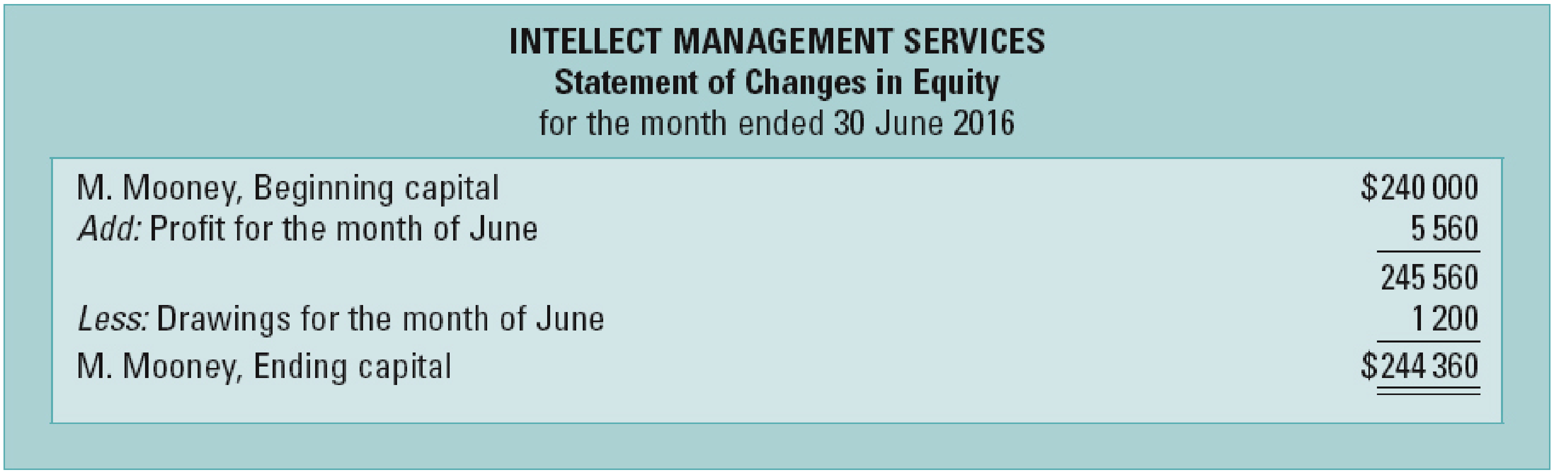
Figure 4.22 Income statement



INTELLECT MANAGEMENT SERVICES
Income Statement
for the month ended 30 June 2016

INCOME		
Revenues:		
Management services revenue		$19 200
Appraisal fees revenue		500
Marketing services revenue		800
		20 500
EXPENSES		
Salaries expense	$11 580	
Interest expense	1 600	
Depreciation expense – office equipment	200	
Depreciation expense – building	500	
Telephone expense	160	
Advertising expense	240	
Office supplies expense	160	
Insurance expense	80	
Electricity expense	420	
		14 940
PROFIT		$ 5 560

Figure 4.23 Statement of changes in equity



INTELLECT MANAGEMENT SERVICES
Statement of Changes in Equity
for the month ended 30 June 2016

M. Mooney, Beginning capital	$240 000
Add: Profit for the month of June	5 560
	245 560
Less: Drawings for the month of June	1 200
M. Mooney, Ending capital	$244 360

Figure 4.24 Balance sheet

INTELLECT MANAGEMENT SERVICES
Balance Sheet
as at 30 June 2016

CURRENT ASSETS			
Cash at bank		$135 770	
Accounts receivable		12 680	
Prepaid insurance (current portion)		960	
Office supplies		1 080	
GST receivable*		30 250	$180 740
NON-CURRENT ASSETS			
Land		120 000	
Building	$180 000		
Less: Accumulated depreciation	500	179 500	
Office equipment	19 200		
Less: Accumulated depreciation	200	19 000	
Prepaid insurance (non-current portion)		880	319 380
TOTAL ASSETS			500 120
CURRENT LIABILITIES			
Accounts payable		9 200	
Salaries payable		3 980	
Interest payable		1 600	
Unearned appraisal fees		560	
Electricity account payable		420	
Current portion of mortgage payable		12 000	27 760
NON-CURRENT LIABILITIES			
Mortgage payable			228 000
TOTAL LIABILITIES			255 760
NET ASSETS			$244 360
EQUITY			
M. Mooney, Capital			$244 360
TOTAL EQUITY			$244 360

*GST receivable of $32 276 less GST payable of $2026.

LEARNING CHECK

- ☐ A worksheet is a useful device for gathering and organising the information needed to complete the financial statements and to close off the income and expense accounts (temporary accounts) at the end of the period.
- ☐ A worksheet helps in the preparation of interim financial statements for internal use when adjusting and closing entries are not recorded during the period.
- ☐ After the adjusting process is complete, the adjusted trial balance, containing both temporary and permanent account balances, is used to prepare the financial statements.
- ☐ The income statement contains only the temporary accounts and the balance sheet contains the permanent accounts.

- To help financial statement users assess management’s intentions, assets and liabilities are classified in the balance sheet as current and non-current.

4.7 Financial statements and decision making

LO 7 **Explain how financial statements are used in decision making.**

This chapter introduced an expanded accounting cycle which includes adjustments to be made to the general ledger accounts at the end of the accounting period before financial statements are prepared. As always, the final output from the accounting cycle is the financial statements. Other reports derived from the accounting records for use by owners, internal management and external users are discussed in later chapters. At this point, the emphasis is on the income statement, balance sheet and statement of changes in equity.

Note that the financial statements are not ends in themselves. They are produced so that interested parties can evaluate the financial performance of the business over a period of time, and gauge its financial position at the end of the period. From the evaluation of these financial statements in association with other data, decisions can be made by owners and management about the future activities of the business and the interests that various other parties have in its future activities.

To gain some appreciation of the use that can be made of the financial statements by an owner, refer to Intellect Management Services’ financial statements in figures 4.22 to 4.24 and to the case of Cynthia Jones in chapters 1 and 2 who set up a beauty business. On examining the income statement for the period, Megan Mooney and Cynthia Jones could ask a number of questions and, based on the answers, make decisions about the future of their businesses. Some questions they might ask include:

- Has my business been profitable?
- Is the profit I have made satisfactory?
- How does the profit made compare with what I expected?
- How does my profit compare with similar businesses?
- How can I improve the profitability of my business, i.e. how can I increase revenues and decrease expenses?
- Should I expand my business?
- Am I getting sufficient financial return for the investment I have made?
- Do I continue with my current business or sell the business and use the proceeds in some alternative business venture or investment?

There are also a number of questions that could arise when Megan Mooney and Cynthia Jones look at the balance sheet and statement of changes in equity of their businesses. Some questions they could ask include:

- Is my business solvent, i.e. are my current assets sufficient to pay my current liabilities?
- Do I have enough cash to handle the day-to-day running of the business?
- Should I arrange with my bank to be able to overdraw my bank account if necessary?
- Should I contribute more capital to the business in order to expand?
- Have I financed my business by using too much long-term borrowing which incurs high interest charges and large cash repayments in the future?

Again, the answers to these and other questions will allow them to make decisions about their businesses and their continuing interests in their businesses.

It is important to appreciate that accounting exists to provide information for decision making, and the basic financial statements covered to this point are a source of information on which economic decisions can be made by those who have an interest in the operations of a business entity.

BUSINESS KNOWLEDGE

Murray James-Wallace

Managing Associate
Geraldton Medical Group
Health Services
Revenue 2008–09: $3.3 million (up 27 per cent)

The telephone call from the office of federal Minister for Health Nicola Roxon came as a big surprise to Murray James-Wallace, a managing associate of a fast-growing medical group in Geraldton, 400 kilometres north of Perth.

The minister toured the centre and chatted with doctors and staff on October 2. ‘Our centre is really the model of the federal government’s super clinics, but we were planning our expansion three years ago,’ James-Wallace says. ‘We’re hoping we’ve shown that locally owned private enterprise can develop better integrated services quite independently of government.’

Notwithstanding the global financial crisis, the Geraldton Medical Group expanded into new premises in the past 12 months, adding ancillary services such as pathology and pharmacy and specialist nursing, and grew by 27 per cent over 2008–09.

Success came with a cost. ‘Growth does not equal profit’, James-Wallace says. ‘We have expanded so rapidly and costs expanded as well. We had to watch where our pennies go. In the past, we always had so much money coming in, it didn’t matter.’

Pushed to the limits of their management skills, James-Wallace and the two other doctors and practice owners watched in horror as costs ‘skyrocketed’. They were stumped about how to rein them in. Profits have started to improve, and they will shortly appoint a chief executive.

James-Wallace found he had less time to spend with his patients as he managed recruiting (into remote areas), making strategic decisions, arranging finance and negotiating leases. ‘We just didn’t realise how long things take, and there is no point being impatient or you make mistakes.’

He says he is proud that the expansion has gone to plan. Ahead, the federal government’s grand health reform plans are still unknown — a headache for planning.

Source: Excerpts from Walters, K, ‘I did it my way’, ***BRW***.

LEARNING CHECK

- ☐ The final output from the accounting cycle is the financial statements.
- ☐ The financial statements can be analysed to assess an entity’s profitability, possible expansion, solvency, working capital and long-term borrowings, and thus provide information for decision making.

KEY TERMS

Accruals, p. 133
Accumulated depreciation, p. 138
Adjusted trial balance, p. 146
Adjusting entries, p. 133
Carrying amount (book value), p. 139
Contra account, p. 138
Crossadding, p. 156
Current assets, p. 151
Current liabilities, p. 153
Deferrals, p. 133
Depreciation, p. 138
Expired cost, p. 131
Intangible assets, p. 153

Investments, p. 152
Liquidity, p. 150
Non-current liabilities, p. 153
Operating cycle, p. 152
Permanent (real) accounts, p. 132
Property, plant and equipment, p. 153
Temporary (nominal) accounts, p. 132
Unexpired cost, p. 131
Useful life, p. 138
Working capital, p. 150
Worksheet, p. 154

DISCUSSION QUESTIONS

1. How is profit determined under (a) the cash basis of accounting and (b) the accrual basis of accounting?

2. Explain why the purchase of supplies is usually recorded in an asset account rather than in an expense account. If supplies were expensed when purchased, which accounts should be debited and which credited at the end of the period in order to reflect the amount of supplies on hand?

3. During the year, the publishers of ***Fishing for the Family***, a monthly magazine, received cash for a 3-year magazine subscription. A credit was made to the Unearned Subscriptions Revenue account.
(a) Is the required adjusting entry made at the end of the period an example of accrual or a deferral?
(b) What types of accounts will be affected by the required adjusting entry?
(c) What effect will omission of the adjusting entry have on profit and on the balance sheet?

4. 'Why are adjusting entries necessary? Surely they cause too much delay in preparing financial statements, and the financial effect of any entries made is immaterial in the long run.' Respond to this criticism.

5. 'If adjusting entries are not recorded in the accounts at the end of each month but are included on a worksheet for interim financial statements, why do we need to record them in the accounts for the financial statements at the end of the financial year?' Discuss.

6. The owner of a business reviews the income statement prepared by you and asks, 'Why do you report a profit of only $30 000 when cash collections of $100 000 were received and cash payments for the period totalled only $50 000 for expenses?' How would you respond to the owner's question?

7. On 31 March, Padbury Publishers received a subscription of $240 for the supply of twelve monthly magazines, beginning in April. At the end of the reporting period, 30 June, the accountant suggested that the owner make an adjusting entry to defer the revenue on nine issues until the new year. The owner of the business was reluctant to do so, claiming that he had already received the subscriptions in cash and could see no reason for the delay in recognising the revenue. Do you agree with the owner or the accountant? Respond to the owner, explaining the accountant's position. Ignore GST.

8. The Claremont Cricket Club collects membership fees of $100 in advance from its members at the beginning of October each year for the summer season, which ends in April. This entitles members to free entry to all games played at the home ground for the season. The club's financial year ends on 31 December. Should the club make any adjusting entry in its accounts at the end of the year in relation to membership fees received? Why or why not? Explain.

9. 'Why would we bother classifying assets in order of their liquidity on a balance sheet? After all, the value placed on assets is not a true reflection of how much we could sell them for.' Discuss.

10. Describe the operating cycle. Is the operating cycle definition related in any way to the definitions of current and non-current assets? Explain.

EXERCISES

Exercise 4.1 IDENTIFYING ADJUSTING JOURNAL ENTRIES **LO 3**

Match the end-of-financial-year adjustments (for each independent situation) to the appropriate journal entry.

Adjustments

1. Portion of prepaid insurance which has now expired (been used up)
2. Revenue earned but not yet received
3. Insurance expense which has not been used up (there is still future cover)
4. Portion of recognised revenue which is considered unearned
5. Expenses incurred but not yet paid
6. Revenue received in advance which is now earned

Journal entry

(a) Prepaid Insurance Dr, Insurance Expense Cr
(b) Unearned Revenue Dr, Revenue Cr
(c) Insurance Expense Dr, Prepaid Insurance Cr
(d) Revenue Dr, Unearned Revenue Cr
(e) Expenses Dr, Expenses Payable Cr
(f) Revenue Receivable Dr, Revenue Cr

Exercise 4.2 CASH VERSUS ACCRUAL BASIS OF ACCOUNTING LO 1

At the end of the first year of operations, Arch Etec, owner of Architect Designs, engaged you to prepare yearly financial statements for the year ended 30 June 2016, on both the cash basis and the accrual basis. The following data are a summary of selected transactions that occurred during the year. Ignore GST.

1. Fees of $125 000 were collected for services provided during the year.
2. There were $8000 in receivables at 30 June 2016 for services performed on credit.
3. Cash payments of $106 000 were made for salaries, rent, insurance and other expenses ***incurred*** during the year.
4. Salaries owing but not yet paid amount to $4000.
5. On 15 June 2016, a client paid $3000 in advance for services to be rendered during the next financial year.
6. Expenses of $6000 were prepaid (not included in the $106 000) at 30 June.

Required

A. Calculate profit under both the cash basis and the accrual basis.

B. Explain how the following items would be reported in the business's balance sheet under the accrual basis:
   1. the $8000 receivables
   2. the unpaid salaries of $4000
   3. the $3000 advance received on 15 June
   4. the cash payment of $6000 for prepaid expenses.

Exercise 4.3 CASH VERSUS ACCRUAL ACCOUNTING LO 1

1. During March, Thuy Bui's business performed services for a specific customer for which the fee was $9000. Payment was received in the following April.
   (a) Was the revenue earned in March or April?
   (b) What account should be debited in (i) March and (ii) April?
2. During the month a business received $160 000 in cash and paid out $120 000 in cash. Does this indicate that the business earned $40 000 during the month? Explain.

3. Gorajek Sole Traders purchased a 3-year insurance contract on 1 March. The business debited the entire cost of $12 000 to Insurance Expense. The financial year ends on 30 June. Under the accrual system, what is the correct expense for the current year, and what entry would be made to correct the accounts? Under the cash basis of accounting, what is the correct expense and the correct adjusting entry (if any)?

Exercise 4.4 ACCRUAL BASIS INCOME STATEMENT LO 1, 2

Victoria Holmes registered as a financial adviser several years ago. An income statement for the current period, prepared using cash accounting, is presented below. GST is ignored.

HOLMES' FINANCIAL ADVISORY SERVICE
Income Statement
for the year ended 30 June 2017

Income: Fees revenue	$380 000
Less: Expenses	305 000
Profit	$75 000

Additional data

(a) Fees for advice given for the year ended 30 June 2016 for $8000 were collected in the current year and are included above.
(b) Fees earned in the current year of $12 000 are expected to be collected in the following year. These have not been included above.
(c) Accrued salaries at 30 June 2016 and 2017 are $4000 and $4300, respectively.
(d) Depreciation expense of $18 000 is not included in the expenses.
(e) Victoria Holmes withdrew $2400 per month to cover personal living expenses.

Required

A. Using the above information, prepare an income statement on the accrual basis. Show all calculations.
B. Briefly explain why the revised statement could be considered a better measure of performance.
C. Is it a correct accounting procedure to exclude drawings from expenses? Explain why.

Exercise 4.5 JOURNALISING ADJUSTING ENTRIES LO 3

Calvin's Cleaning has employed you to investigate whether any accrual entries are needed in the business. On completion of your investigation on 30 June, you have discovered that the following items need attention.

1. Unearned cleaning services revenue now earned, $3200.
2. Depreciation not recorded, $12 000.
3. Employee salaries owed but not recorded, $6400.
4. Prepaid insurance expired, $1200.
5. Interest revenue accrued but not recorded, $1600.

Required

A. Prepare the adjusting entries for items 1 to 5 at 30 June, the end of the accounting period.
B. Suppose the adjusting entries in requirement A were not made. Calculate the total overstatement or understatement of profit as a result of the omission of these adjustments.

Exercise 4.6 ADJUSTING ENTRIES AND INCOME STATEMENT LO 3, 4

The income statement of Peter's Pest Control for the month of August 2016 shows a profit of $6800 based on:

Services revenue	$15 200
Wages expense	6 400
Supplies expense	1 100
Electricity expense	900

In reviewing the statement, you discover the following.

1. Depreciation on equipment of $460 was omitted.
2. Supplies expense includes $320 of supplies that are still on hand at 31 August.
3. Insurance expired during August of $400 was omitted.
4. Accrued wages at 31 August amounting to $260 were not included.

5. Services provided but unrecorded totalled $1600.

Required

Prepare a corrected income statement for the month of August 2016.

Exercise 4.7 ADJUSTING ENTRIES AND LEDGER ACCOUNTS LO 3, 5

The following information was extracted from the accounting records of the business of Wendy's Lawnmowing Services:

Account balances at 1 July 2015:	$3600
Rent accrued	2400
Rates prepaid	2400
Insurance prepaid	

Payments made during the year ended 30 June 2016 were as follows:

2015			
Aug.	8	Rent, 4 months to 31 July 2015	$4800
Oct.	26	Insurance, 1 year to 31 October 2016	8400
Nov.	2	Rates, 6 months to 31 March 2016	5400
Dec.	12	Rent, 4 months to 30 November 2015	5200
2016			
April	17	Rent, 4 months to 31 March 2016	5200
May	9	Rates, 6 months to 30 September 2016	5400

Assume that whenever cash was paid, the debit entry was made to the appropriate expense account, rather than the asset or liability, for the year. The only exception to this is the first payment for the year which is split between the accrual or deferral and the expense.

Required

A. Write up and balance the Rent Payable, Prepaid Rates, and Prepaid Insurance accounts in the ledger of Wendy's Lawnmowing Services for the year 1 July 2015 to 30 June 2016.
B. Show clearly any adjusting entries that may be required on 30 June 2016. Explain why these adjusting entries are necessary.

Exercise 4.8 ADJUSTING ENTRY FOR PREPAID INSURANCE LO 3

Kreative Kitchens purchased a 1-year insurance policy on 1 March 2017. The entire premium of $9000 was recorded by debiting Prepaid Insurance. Ignore GST.

Required

A. Give the adjusting entry at 30 June for the year ending 30 June 2017.
B. What amount should be reported in the 30 June 2017 balance sheet for Prepaid Insurance?

C. If no adjusting entry were made on 30 June, by how much would profit be overstated or understated? Would assets be overstated or understated? Explain.
D. What would your adjusting entry in requirement A be if the premium of $9000 was recorded by debiting Insurance Expense?

Exercise 4.9 ADJUSTING ENTRY FOR UNEARNED REVENUE LO 3

Easy Rentals Ltd received 4 months' rent in advance from tenants on 1 April 2015. The entire amount of $6400 was credited to the Unearned Revenue account at this date. Ignore GST.

Required

A. Give the adjusting entry at 30 June 2015.

B. What amount (if any) should be reported in the balance sheet at 30 June 2015?
C. If no adjusting entry were made on 30 June, by how much would profit be overstated or understated? Would liabilities be overstated or understated? Explain.
D. What would your adjusting entry be in requirement A if the amount of $6400 had been credited to Rental Revenue on 1 April 2015?

Exercise 4.10 EXTENSION OF ACCOUNT BALANCES TO PROPER WORKSHEET COLUMNS

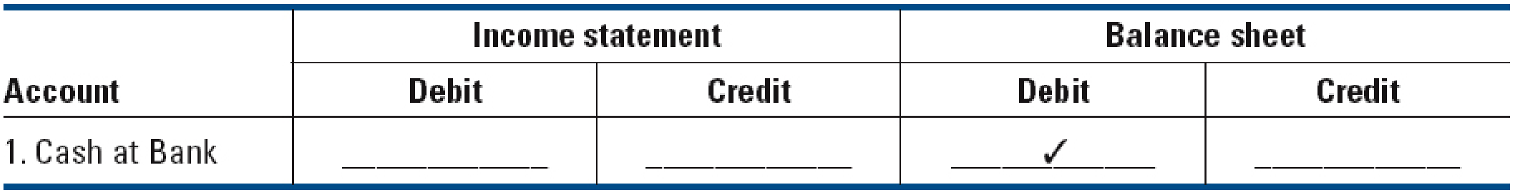
GST **LO 4**

Listed below are ledger accounts that appear in the adjusted trial balance columns of a worksheet.

1. Cash at Bank
2. Wages Expense
3. Building
4. Lan Mei Tran, Capital
5. Service Revenue
6. Depreciation Expense
7. Accounts Receivable
8. Accumulated Depreciation
9. Equipment
10. Prepaid Insurance
11. Wages Payable
12. GST Payable
13. Interest Payable
14. Interest Receivable
15. Interest Expense
16. Interest Revenue
17. Office Supplies Expense
18. Office Supplies
19. GST Receivable
20. Lan Mei Tran, Drawings

Complete the tabulation shown below by entering a tick in the proper worksheet column in which the amount in each account would be extended in completing the worksheet.

Solution format



	Income statement		Balance sheet	
Account	**Debit**	**Credit**	**Debit**	**Credit**
1. Cash at Bank	___________	___________	_____✓_____	___________

Exercise 4.11 ADJUSTING ENTRIES FOR DEPRECIATION

LO 4

Trev’s Gardening Services purchased a trailer on 1 July 2016 for $26 200. It was estimated to have a useful life of 5 years and a residual value at the end of that time of $2800.

Required

A. What is the depreciation expense for the year ended 30 June 2017?
B. What is the balance of the Accumulated Depreciation account at the end of June 2018?
C. What is the carrying amount of the trailer in the balance sheet at 30 June 2017 and at 30 June 2018?
D. Explain why an entry is made to the Accumulated Depreciation account rather than to the Trailer account.

Exercise 4.12 ADJUSTING ENTRIES

LO 3

Selected accounts of Amanda’s Art Supplies are shown below at 30 June of the current year before any adjusting entries have been made.

	Debit	Credit
Prepaid Insurance	$4 500	
Supplies	720	
Shop Shelving	24 000	
Unearned Rental Fees		$ 4 800
Salaries Expense	32 600	
Rental Fees Revenue		13 200

Additional information

(a) Prepaid insurance represents premiums for 1 year paid on 1 April.
(b) Supplies of $430 were on hand at 30 June.
(c) Shop shelving, which had been purchased on 1 January, is expected to last 10 years and have a residual value of $2000.

(d) Amanda collected 4 months' rent in advance on 1 June from a number of tenants.
(e) Accrued salaries not recorded as at 30 June are $2400.

Required

Record in the general journal the necessary adjusting entries on 30 June.

Exercise 4.13 ADJUSTING ENTRIES — MISSING DATA

LO 4, 5

Selected T accounts for Trewhella Traders are shown below. Adjusting entries for the period have been posted.

Prepaid Insurance

30/6 Bal.	1 020		

Insurance Expense

30/6 Adj. ent.	700		

Supplies

30/6 Bal.	400		

Supplies Expense

30/6 Adj. ent.	360		

Rental Revenue Receivable

1/7 Bal.	0		
30/6 Bal.	0		

Unearned Rental Revenue

		30/6 Bal.	980

Rental Revenue

		30/6 Bal.	12 600

Required

A. Supplies of $390 were purchased during the year. Calculate the 1 July balance in the Supplies account.
B. No balance existed in the Unearned Rental Revenue account on 1 July. Calculate the total amount of rental fees that were received in cash during the period.
C. The balance in the Prepaid Insurance account on 1 July was $910. Calculate the total cash payment made during the year for insurance premiums.

Exercise 4.14 ADJUSTING ENTRIES

LO 3

Investment Guru provides investment advice to customers for fees. On 30 June 2016, it completed its first year of operations. Some of the ledger account balances of the business, before any year-end adjustments, are given below:

Advertising Prepaid	$ 1 200
Investment Fees Revenue	350 000
Rent Expense	17 280
Computer Database Expense	12 240

Wages Expense	113 800
Electricity Expense	6 840

No adjusting entries have been made to these accounts at any time during the year. An analysis of the business records reveals the following.

1. The balance in Advertising Prepaid represents the amount paid for an advertisement in an investment magazine for 1 year. The agreement with the publisher stipulates the same amount of space each month and covers the period 1 September 2015 to 31 August 2016.
2. The firm’s lease in respect of the premises stipulates a rent of $1440 per month payable on the first day of each month, plus an annual amount equal to 0.5% of the annual fees earned. The extra rental is payable within 15 days of the end of the reporting period.
3. The computer database expense relates to an annual subscription to web based data on the share market and other investments. The subscription was taken out on 1 August 2015.
4. The wages are paid every Friday for a 5-day working week ending on the preceding Wednesday. In 2016, 30 June falls on a Thursday and the wages for the week ended 6 July 2016 amount to $9000. No overtime was worked and all employees worked the normal office hours during the 5-day week.
5. The Electricity Expense ledger balance does not include the amount for June 2016. The account was received during July and amounted to $1250.

Required

Journalise the necessary adjusting entries.

Exercise 4.15 ADJUSTING ENTRIES AND EFFECT ON FINANCIAL STATEMENTS **LO 3,**

In the first column of the schedule presented below are the condensed financial statements for Melvin Motorvehicle Rentals before adjusting entries were made. The following items were not reflected in the statements.

1. Rental revenue earned but not collected or recorded, $1500.
2. Depreciation on vehicles not recorded, $14 500.
3. Wages earned by employees but not paid at year-end, $5600.
4. The company requires the first-day rental in advance as a deposit for making a reservation. The deposit is either deducted from the total rental charges or is forfeited. During the last week of June, deposits earned were not recorded as revenue, $990.

MELVIN MOTORVEHICLE RENTALS
Financial Statements

	Unadjusted balances	Adjustment	Adjusted balances
Income statement			
Rental revenue	$255 600		
Expenses:			
Depreciation expense	—		
Insurance expense	46 800		
Wages expense	140 000		
General expenses	24 000		
Profit	$ 44 800		
Statement of changes in equity			
Beginning capital	$ 90 000		
Add: Profit	44 800		
Less: Drawings	(72 000)		
Ending capital	$ 62 800		
Balance sheet			
Cash at bank	$ 46 800		
Accounts receivable	—		
Other receivables	10 800		
Vehicles	124 000		
Less: Accumulated depreciation	(38 000)		
	$143 600		
Wages payable	$ —		
Unearned rental revenue	7 200		
Loan payable	73 600		
Melvin Maserati, Capital	62 800		
	$143 600		

Required

A. Prepare the necessary adjusting entries in general journal form.
B. Determine the effects of the adjustments on the financial statements by completing the schedule presented above.
C. 1. Did profit increase or decrease? By how much?
   2. What was the effect of the adjusting entries on total assets? total liabilities? total equity?

Basic
Moderate
Challenging

Problem 4.1 ADJUSTING ENTRIES **LO 3**

Hui Yu, lawyer, had the following transactions related to the business during June. Ignore GST.

June 1	Purchased office furniture for $36 000. The furniture will be depreciated over a useful life of 10 years at which time it is expected to have a residual value of $4800.
1	Purchased a 12-month fire insurance policy for $3000.
2	Borrowed $42 000 from the Eastern Bank on a short-term loan. The principal, plus 8% annual interest, will be repaid in 3 months.
11	Purchased supplies for $450. On 30 June, supplies worth $230 remained on hand.
15	Paid $1200 for 1 month's rent for the period 15 June to 15 July.
18	Received an electronic bank transfer from a client for $840 as an advance payment for services to be performed. Only 20% of the work was completed by 30 June.
28	Received an invoice for $410 for telephone and internet charges for the month.

Required

A. Prepare the journal entries to record each transaction and prepare any adjusting entries as at 30 June, the end of the accounting year.
B. Repeat requirement A assuming the addition of 10% GST where necessary. Assume the telephone and internet tax invoice for $451 was issued on 28 June.

Problem 4.2 ADJUSTING ENTRIES AND EFFECT ON FINANCIAL STATEMENTS **LO 3, 4**

A. The financial year for Drip Dry Cleaning Services ends on 30 June. Using the following information, make the necessary adjusting entries at year-end. Ignore GST.

1. On 15 February, Danielle Drip's business borrowed $16 000 from Northern Bank at 8% interest. The principal and interest are payable on 15 August.

2. Rent of $3600 for the 6-month period ending 31 July is due to be paid in August.

3. The annual depreciation on equipment is estimated to be $7200. The 1 July balance in the Accumulated Depreciation account was $15 600.

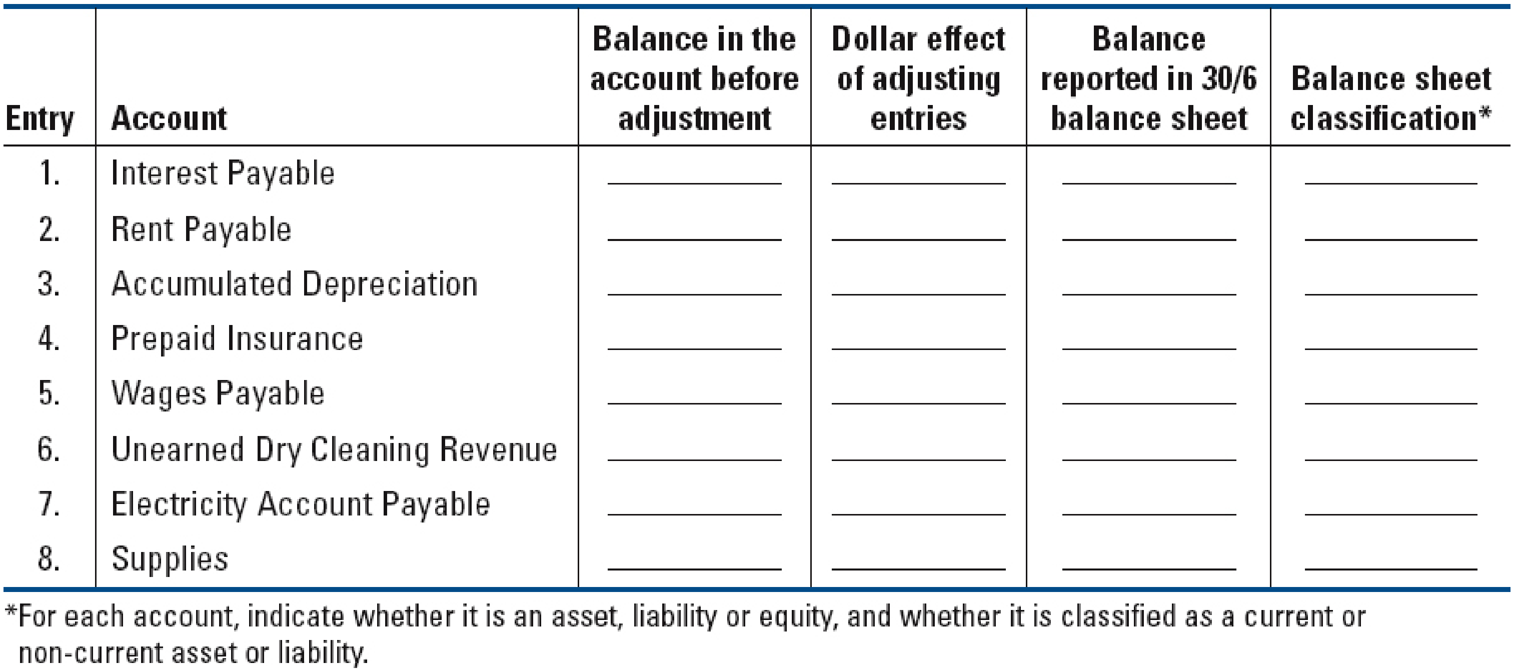
4. Drip Dry Cleaning Services purchased a 1-year insurance policy on 1 March of the current year for $660. A 3-year policy was purchased on 1 November of the previous year for $2700. Both purchases were recorded by debiting Prepaid Insurance.

5. The business has two part-time employees who each earn $220 a day. They both worked the last 3 days in June for which they have not yet been paid.

6. On 1 June, the Highup Hotel paid the business $2100 in advance for doing their dry cleaning for the next 3 months. This was recorded by a credit to Unearned Dry Cleaning Revenue.

7. Water for June of $850 is unpaid and unrecorded.

8. The supplies account had a $280 debit balance on 1 July. Supplies of $1560 were purchased during the year and $190 of supplies are on hand as at 30 June.



Entry	Account	Balance in the account before adjustment	Dollar effect of adjusting entries	Balance reported in 30/6 balance sheet	Balance sheet classification*
1.	Interest Payable	______	______	______	______
2.	Rent Payable	______	______	______	______
3.	Accumulated Depreciation	______	______	______	______
4.	Prepaid Insurance	______	______	______	______
5.	Wages Payable	______	______	______	______
6.	Unearned Dry Cleaning Revenue	______	______	______	______
7.	Electricity Account Payable	______	______	______	______
8.	Supplies	______	______	______	______

*For each account, indicate whether it is an asset, liability or equity, and whether it is classified as a current or non-current asset or liability.

. As you know, all adjusting entries affect one balance sheet account and one income statement account. Based on your adjusting entries prepared above.

1. Complete the schedule given on page 169.

2. Calculate the increase or decrease in profit.

3. Calculate the increase or decrease in total assets, total liabilities and total equity.

Problem 4.3 ADJUSTING ENTRIES FOR PREPAID INSURANCE, UNEARNED REVENUE AND PREPAID RENT AND LEDGER ACCOUNTS **LO 4**

Monthly Foodies' Magazine's ledger includes the following accounts: Subscription Revenue, Unearned Subscriptions Revenue, Prepaid Insurance, Insurance Expense, Prepaid Rent and Rent Expense.

The following transactions relating to subscriptions, insurance and rent occurred on the dates indicated. Ignore GST.

Subscriptions

1 July 2016. The Unearned Subscriptions Revenue account contained a credit balance of $77 500. Of this balance, $21 900 is for subscriptions expiring at the end of October and $55 600 is for subscriptions expiring at the end of February.

1 November 2016. Monthly Foodies' Magazine received $14 800 for subscriptions lasting 6 months.

1 March 2017. Monthly Foodies' Magazine received $34 200 for subscriptions lasting 12 months.

1 May 2017. Monthly Foodies' Magazine received $16 500 for subscriptions lasting 6 months.

Insurance

1 July 2016. The Prepaid Insurance account contained a debit balance of $11 970 for a policy that ends on 31 March.

15 September 2016. Monthly Foodies' Magazine paid $27 120 for a 12-month policy beginning coverage on 15 September.

Rent

1 July 2016. The Prepaid Rent account contained a debit balance of $12 995 for the period July to November inclusive.

1 December 2016. Monthly Foodies' Magazine paid $24 030 for 9 months' rent.

Required

For each of the situations listed, enter the beginning balance in the proper ledger account and post the transactions directly to the accounts listed. Then record the necessary adjusting entry at 30 June 2017, the end of the financial year.

Problem 4.4 ADJUSTING ENTRIES AND CORRECTIONS LO 3, 4

The draft accounts for the year ended 30 June 2016 and a balance sheet as at that date for S. Steiner are submitted to you. Towards the end of the financial year her accountant resigned and she had completed the records herself. She thinks that errors have occurred and asks your help. An examination of the accounting records reveals the following.

1. Interest of $1920 on the investments held by the business was due, but has not been received.
2. A payment of $4160 for new office furniture has been incorrectly debited to the Sundry Expenses account. The furniture had been purchased late in June 2016.
3. Rent due from customers Raggatt and Petney amounting to $2560 is not included in the accounts.
4. Repairs to Steiner's private motor vehicle, $1700, have been debited to the Vehicle Expenses account.
5. Commission due to sales representatives for the month of June, $4480, has been overlooked.

6. An insurance policy covering contents and buildings was taken out on 1 March 2016, the annual premium of $2400 being paid in advance on this date and debited to the Prepaid Insurance account.
7. A payment of $35 000 on 1 July 2015 for additions to buildings has been debited to Repairs and Maintenance.
8. No depreciation has been recognised for the year ending 30 June. The draft balance sheet shows the following:

Buildings (at cost)	$256 000*	
Accumulated depreciation	51 200	204 800
Office furniture and equipment (at cost)*	33 600	
Accumulated depreciation	20 800	12 800

* Does not include additions to buildings in no. (7), nor adjustments for office furniture in (2) above.

Depreciation is to be calculated as follows:

Buildings: 2% on cost

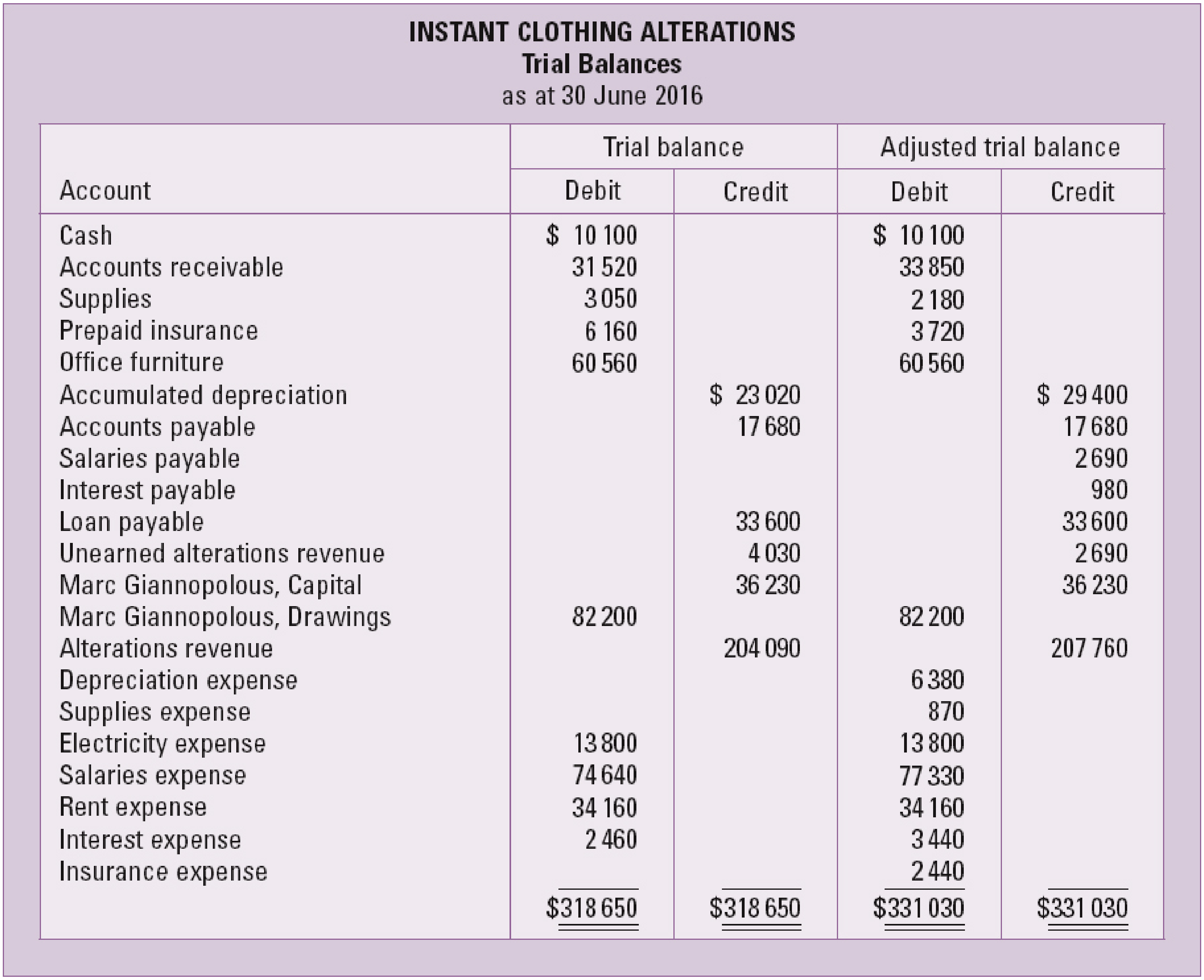
Office furniture and equipment: 20% on cost.

Required

A. Ignoring GST, show the journal entries required to make the necessary adjustments listed.
B. Calculate the effect (increase or decrease) of each of the adjustments on the profit figure of $64 900 as shown in the draft accounts.

Problem 4.5 ADJUSTING ENTRIES AND ANALYSIS LO 4, 5, 6

Instant Clothing Alterations is run by Marc Giannopolous in the local shopping centre. The business prepared the following unadjusted and adjusted trial balances at 30 June 2016:



INSTANT CLOTHING ALTERATIONS
Trial Balances
as at 30 June 2016

Account	Trial balance Debit	Trial balance Credit	Adjusted trial balance Debit	Adjusted trial balance Credit
Cash	$ 10 100		$ 10 100	
Accounts receivable	31 520		33 850	
Supplies	3 050		2 180	
Prepaid insurance	6 160		3 720	
Office furniture	60 560		60 560	
Accumulated depreciation		$ 23 020		$ 29 400
Accounts payable		17 680		17 680
Salaries payable				2 690
Interest payable				980
Loan payable		33 600		33 600
Unearned alterations revenue		4 030		2 690
Marc Giannopolous, Capital		36 230		36 230
Marc Giannopolous, Drawings	82 200		82 200	
Alterations revenue		204 090		207 760
Depreciation expense			6 380	
Supplies expense			870	
Electricity expense	13 800		13 800	
Salaries expense	74 640		77 330	
Rent expense	34 160		34 160	
Interest expense	2 460		3 440	
Insurance expense			2 440	
	$318 650	$318 650	$331 030	$331 030

Required

Prepare the adjusting entries that account for the differences between the two trial balances and explain the nature of each entry. The only account affected by more than one adjustment is Alterations Revenue. Ignore GST.

Problem 4.6 ADJUSTING ENTRIES, POSTING TO T ACCOUNTS, AND EFFECT ON PROFIT **GST** **LO 3, 4**

The trial balance of Chelsea Elliott, marketing services provider, at 30 June 2015 was as follows:

CHELSEA ELLIOTT, MARKETING SERVICES
Unadjusted Trial Balance
as at 30 June 2015

Account	Debit	Credit
Cash at bank	$ 7 780	
Accounts receivable	21 000	
GST receivable	2 600	

Prepaid rent	2 100	
Prepaid insurance	2 730	
Office supplies	4 020	
Office equipment	12 200	
Accumulated depreciation — office equipment		$ 2 470
Accounts payable		2 800
Unearned fees		1 100
Loan payable — due 2015		9 200
GST payable		8 060
C. Elliott, Capital		16 600
C. Elliott, Drawings	52 000	
Fees revenue		138 400
Salaries expense	57 200	
Telephone expense	6 100	
Rent expense	10 200	
	$178 630	$178 630

Required

A. Using the following information, prepare adjusting entries. Use the accounts shown in the trial balance and these additional accounts: Salaries Payable, Interest Payable, Telephone Account Payable, Depreciation Expense, Office Supplies Expense, Insurance Expense, Interest Expense.
   1. Interest expense of $520 has accrued on the loan payable.
   2. A physical count of office supplies on 30 June shows $560 of unused supplies on hand.
   3. Depreciation of the office equipment this year is estimated to be $1020.
   4. Half the amount in the Unearned Fees account had been earned by the end of the year.
   5. The amount in the Prepaid Rent account covers this June and the next 2 months.
   6. Of prepaid insurance, 80% expired this period.
   7. Salaries expense accrued for the last 4 days in June amounts to $1660.
   8. The telephone expense for June of $670 has not been recorded or paid. No tax invoice has been issued.

B. Open T accounts for the accounts shown in the trial balance and enter the 30 June balance in each account. Post the adjusting entries to the T accounts.

C. Prepare an adjusted trial balance, an income statement and a balance sheet.

D. Assuming that adjusting entries 1–8 in requirement A were not made, determine what the profit would have been. What is the difference between this figure and the profit derived in requirement C?

Problem 4.7 PREPARING A WORKSHEET

GST **LO 6**

JetSki Hire runs a business on the Murray River hiring out jet skis to holiday makers, tour operators and for corporate training sessions. The unadjusted trial balance of JetSki Hire is shown below:

JETSKI HIRE
Unadjusted Trial Balance
as at 30 June 2016

Account	Debit	Credit
Cash at bank	$ 19 690	
Accounts receivable	15 200	

GST receivable	4 400	
Prepaid insurance	12 500	
Jet skis	267 300	
Accumulated depreciation — jet skis		$ 105 600
Office equipment	6 930	
Accumulated depreciation — office equipment		2 940
Accounts payable		19 600
Loan payable		82 500
Unearned rental revenue		2 770
GST payable		6 600
J. Jetson, Capital		109 380
J. Jetson, Drawings	27 390	
Rental revenue		119 690
Salaries expense	50 160	
Rent expense	8 680	
Repairs and maintenance expense	9 770	
Marine supplies expense	22 440	
Telephone expense	4 620	
	$449 080	$449 080

The following additional information is available at the end of June.

- **(a)** Repairs on one jet skis done in June for $1870 have not yet been paid for or recorded. A tax invoice has been issued by the repairer.
- **(b)** Expired insurance amounted to $11 000.
- **(c)** Depreciation on the jet ski fleet for 1 year is $28 500. Depreciation on the office equipment is $1320.
- **(d)** Salaries earned but not paid amounted to $3780.
- **(e)** The balance in the Unearned Rental Revenue account includes $560 received for services rendered on 27 June.
- **(f)** The June telephone costs of $600 have not been paid for or recorded at 30 June 2016. A tax invoice has been received.
- **(g)** Accrued interest on the loan payable is $7800.

Required

Prepare a 10-column worksheet for the year ended 30 June 2016.

Problem 4.8 WORKSHEET AND FINANCIAL STATEMENTS **LO 7, 8, 9**

The adjusted trial balance columns of the worksheet for Chris' Cleaning Services are as shown on the next page.

CHRIS' CLEANING SERVICES
Worksheet (Partial)
for the month ended 28 February 2016

	Adjusted trial balance		Income statement		Balance sheet	
Account	Debit	Credit	Debit	Credit	Debit	Credit
Cash	$ 41 300					
Accounts Receivable	21 950					
Prepaid Rent	6 380					
Equipment	64 540					
Accumulated Depreciation		$ 13 280				
Loan Payable (due June 2016)		17 400				
Accounts Payable		15 660				
C. Kleen, Capital		94 230				
C. Kleen, Drawings	10 200					
Service Revenue		35 350				
Salaries Expense	27 550					
Rent Expense	2 120					
Depreciation Expense	1 880					
Interest Expense	160					
Interest Payable		160				
	$176 080	$176 080				
Profit for the period						

Required

Complete the worksheet and prepare an income statement, a statement of changes in equity and a classified balance sheet.

Problem 4.9 ADJUSTING ENTRIES AND IMPACT ON FINANCIAL STATEMENTS **LO 3, 4**

The financial year for Bankstown Rental Services ends on 30 June.

Required

A. Using the following information, make the necessary adjusting entries.

1. The $765 telephone expense is unpaid and unrecorded at 30 June.
2. The balance in Accumulated Depreciation at the beginning of the financial year was $51 300. Annual depreciation on equipment is estimated to be $34 200.
3. Rent of office premises of $3165 for the 3-month period ending 31 July is due to be paid in July.
4. Bankstown Rental Services borrowed $70 000 from BANK Bank on 15 March. The principal, plus 8% interest, is payable on 15 September. Accrued interest on 30 June has not been recorded.
5. Bankstown Rental Services purchased a 12-month insurance policy for $2940 on 1 November. A 24-month policy was purchased on 1 April for $6600. Both purchases were recorded by debiting Prepaid Insurance.
6. The Supplies account had a $1500 debit balance on 1 July of the preceding year. Supplies costing $7100 were purchased during the year, and $1310 of supplies are on hand as at 30 June.
7. On 1 June, Bankstown Rental Services received 2 months' rent in advance, totalling $4660. This was

recorded by a credit to Unearned Rental Revenue.

8. The office assistant earns $280 a day. He will be paid in July for the 5-day period ending 2 July.

B. As you know, all adjusting entries affect one balance sheet account and one income statement account. Based on your adjusting entries prepared in requirement A:

1. calculate the increase or decrease in profit

2. calculate the increase or decrease in total assets, total liabilities and total equity.

Problem 4.10 ADJUSTING ENTRIES AND IMPACT ON FINANCIAL STATEMENTS LO 4, 5, 7

Tania Angus established Angus' Phone App Productions in 2015 and kept her accounting records on a cash basis. During 2017, Tania decided to switch her accounting to the accrual basis and has asked you to help her convert the 2015 and 2016 financial statements to an accrual basis. Your analysis of the accounting records revealed the following data:

	2015	**2016**
Consulting fees revenue		
Cash collected for apps developed during the year	$159 600	$165 300
Charged customers for apps developed during the year, but cash was not received until the following year	45 600	57 000
Prepaid revenue collected in 2015 for apps developed in 2016	8 550	
Expenses		
Cash paid for services received	91 200	96 900
Accrued expenses at end of the year paid for in the following year	39 900	41 600
Prepaid expenses:		
Cash paid during the year	22 000	34 000
Amount prepaid at the end of the year	17 200	39 800

Required

A. Using the data, complete abbreviated income statements in the form shown below for the years 2015 and 2016 for both the cash basis and accrual basis of accounting. Show supporting calculations in good form.

	Cash basis		Accrual basis	
	2015	2016	2015	2016
App development revenue				
Expenses				
Profit				

B. Show the differences that would result in the 31 December 2016 balance sheet accounts from using the accrual basis instead of the cash basis.

Problem 4.11 ADJUSTING ENTRIES AND JUSTIFICATIONS **LO 4, 5**

Miranda's Motor Mechanics analysed the accounting records and other data for the business. The following information is made available for the year ended 30 June 2016.

1. Salaries and wages owing to employees at the end of the financial year amounted to $2480.
2. Included in the Prepaid Rent account is an amount of $1600 paid in June for the month of July 2016. The Prepaid Rent account has a debit balance of $4800.
3. All equipment had been acquired when the business was established on 1 July 2013. The Equipment account has a debit balance of $142 000. The equipment has a useful life of 10 years and an estimated residual value of $6000.
4. The Motor Vehicle account has a debit balance of $80 000. The vehicle was purchased on 1 January 2016 and has an estimated useful life of 5 years and an estimated residual value of $10 000.
5. The Prepaid Insurance account has a debit balance of $3444. It consists of the following policies purchased during the financial year ending 30 June 2016:

Policy number	*Date of policy*	*Life of policy*	*Premium paid*
GTX 9847	1 August 2015	1 year	$ 876
KLM 9043	1 December 2015	2 years	2 016
PAR 2178	1 March 2016	6 months	552

6. A physical count of office supplies on hand at 30 June gives a total of $890. The Office Supplies account has a debit balance of $2920.
7. Included in the Prepaid Advertising account balance of $8400 is the amount is $1650 paid to the local newspaper for advertising space in their July 2016 papers. The remainder of the balance is used up by 30 June 2016.
8. At the end of the year, the business had outstanding a long-term loan of $40 000 from one of Miranda's friends. Interest of 8% p.a. is payable half-yearly on this loan, every 1 April and 1 October. The last interest payment made by the business was on 1 April 2016.
9. The Motor Mechanic Services Revenue account had a credit balance of $123 600. Included in this amount was $3280 for services to be provided in July 2016.
10. Accrued council rates at 30 June 2016 were $4200.

Required

A. Prepare the end-of-period adjusting entries required on 30 June 2016. Show clearly your calculations.
B. Provide reasons for your answers to items 2, 4 and 8 above.

Problem 4.12 ADJUSTING ENTRIES AND FINANCIAL STATEMENTS **LO 3, 4**

The unadjusted trial balance of the general ledger of Antonio's Small Appliance Repair Service on 30 June 2016 is presented below:

ANTONIO'S SMALL APPLIANCE REPAIR SERVICE
Trial Balance
as at 30 June 2016

Account	Debit	Credit
Cash at bank	$ 37 770	
Investment in marketable securities	76 260	
Accounts receivable	198 850	
GST receivable	18 860	
Prepaid insurance	10 200	
Electrical repair equipment	360 000	
Accumulated depreciation — electrical equipment		$ 122 500

Accounts payable		184 500
Mortgage payable (due 31 December 2021)		61 500
GST payable		27 100
A. Calabrese, Capital		172 770
A. Calabrese, Drawings	31 540	
Small appliance repairs revenue		434 600
Advertising expense	20 100	
Other selling expenses	30 750	
Electricity expense	20 100	
Sundry expenses	39 200	
Rent expense	19 680	
Wages expense	155 800	
Interest on mortgage expense	3 060	
Rent revenue		19 200
	$1 022 170	$1 022 170

Additional data for adjustment purposes

(a) Supplies on 30 June 2016 were:
  (i) advertising supplies (originally debited to Advertising Expense), $6900
  (ii) store supplies (originally debited to Sundry Expenses), $3600.

(b) On 1 January 2016, the business rented half of its shop space to Joshua's Cafe for 12 months and received a cheque for $19 200 plus GST, representing the entire year's rental fee.

(c) Purchases of electrical repair equipment were as follows, net of GST:

Purchase date	***Cost***	***Useful life***
1 January 2012	$280 000	8 Years
1 April 2016	$80 000	10 Years

(d) The Prepaid Insurance account consists of the following, net of GST:

Policy number	*Date of policy*	*Life of policy*	*Total premiums*
FGK 3457	1 July 2015	2 years	$6200
BKL 5702	1 January 2016	1 year	$4000

(e) Wages earned by employees but unpaid as at 30 June 2016 totalled $5040.

(f) Interest on the mortgage payable is $3672 per year, paid in half-yearly instalments on 1 May and 1 November.

Required

A. Journalise adjustments in the general journal of the entity.
B. Prepare an income statement and a statement of changes in equity for the year ended 30 June 2016.
C. Prepare a balance sheet (properly classified in narrative form) as at 30 June 2016.
D. Present the Interest on Mortgage Expense account showing detailed entries for the year ended 30 June 2016 as it would appear after all adjustments have been made.

Problem 4.13 CASH AND ACCRUAL ACCOUNTING **LO 1, 4**

Trang Nguyen operates a roofing business that specialises in replacing broken tiles and cleaning and repairing roofs and gutters. He began business in April 2016 but has not yet established a formal set of records. His son, Tram, has prepared cash receipts and payments statements for each of the first 3 months of the business, but Trang Nguyen is worried about relying on them. He asks you to prepare a ‘proper’ set of financial statements for the month of June.

By reviewing the bank statements, cheque butts, invoice files and other data, you derive a set of balance sheets at 1 June and 30 June. These are shown below, followed by a statement of cash receipts and payments for March. GST is ignored.

NGUYEN ROOFING SERVICE
Balance Sheets

	1 June 2016	30 June 2016
ASSETS		
Cash at bank	$ 9 280	$ 15 480
Accounts receivable	7 220	9 280
Supplies on hand	4 100	4 640
Equipment	62 000	74 400
Accumulated depreciation (credit)	(7 600)	(10 300)
	$75 000	$ 93 500
LIABILITIES AND EQUITY		
Salaries payable	$ 4 640	$ 7 380
Electricity account payable	—	1 470
T. Nguyen, Capital	70 360	84 650
	$ 75 000	$ 93 500

NGUYEN ROOFING SERVICE
Balance Sheets
for June 2016

CASH RECEIPTS		
Received from credit customers	$27 860	
Contributed by T. Nguyen	20 000	
Total cash receipts		$47 860
CASH PAYMENTS		
Paid for supplies purchased	6 190	
Purchase of equipment	12 400	
Payment of salaries	6 700	
Paid for June rent	2 000	
Sundry expenses	2 370	
Cash withdrawn by T. Nguyen	12 000	
Total cash payments		41 660
Net increase in cash balance		$ 6 200

Required

A. From the information presented, prepare an income statement on the accrual basis for the month of June. ***Hint:*** You may wish to prepare (reconstruct) relevant accounts.

B. Illustrate the apparent correctness of your profit amount by preparing a statement of changes in equity for June 2016.

Problem 4.14 OPENING T ACCOUNTS, ADJUSTING ENTRIES AND PREPARING FINANCIAL STATEMENTS

GST **LO 3, 4**

Gavin's Gardening Equipment Hire's unadjusted trial balance of the business appears as shown below.

GAVIN'S GARDENING EQUIPMENT HIRE
Unadjusted Trial Balance
as at 30 June 2016

Account	Debit	Credit
Cash at bank	$ 5 200	
Accounts receivable	2 400	
GST receivable	3 300	
Prepaid insurance	1 200	
Gardening equipment	78 700	
Accumulated depreciation — party equipment		$ 40 600
Accounts payable		6 800
GST payable		5 000
G. Greene, Capital		18 710
G. Greene, Drawings	18 310	
Hire fees revenue		74 700
Salaries expense	26 500	
Rent expense	5 700	
Maintenance expense	3 100	
Electricity expense	1 400	
	$145 810	$145 810

Additional information

(a) Expired insurance amounts to $750.

(b) June electricity costs of $330 have not been paid or recorded. No tax invoice has been received.

(c) Depreciation on the gardening equipment is $16 250.

(d) Hire fees of $1320 (plus GST of $132) were received in advance and were not considered to be revenue at balance date.

(e) The Rent Expense account contains $1440 paid for July 2016 rent.

(f) A hire fee of $418 received in cash (including $38 GST) was recorded by debiting Accounts Receivable.

(g) Salaries earned amounting to $530 will be paid in July and have not been recorded.

Required

A. Set up T accounts for the accounts listed in the trial balance.
   1. Enter the account balances from the trial balance into the T accounts.
   2. Post the adjusting information directly to the T accounts.

B. Prepare an adjusted trial balance.
C. Prepare an income statement and a statement of changes in equity for the year ended 30 June 2016.
D. Prepare a balance sheet as at 30 June 2016.

Problem 4.15 PREPARING A WORKSHEET AND FINANCIAL STATEMENTS **LO 3, 4, 6**

The unadjusted trial balance of Helena's Hire Cars is shown below:

HELENA'S HIRE CARS
Unadjusted Trial Balance
as at 30 June 2016

Account	Debit	Credit
Cash at bank	$ 8 140	
Accounts receivable	12 860	
GST receivable	1 500	
Office supplies	640	
Hire cars	93 600	
Accumulated depreciation — hire cars		$39 400
Office equipment	6 200	
Accumulated depreciation office equipment		3 500
Accounts payable		10 800
Unearned hire fees		2 260
GST payable		3 240
H. Savva, Capital		66 600
H. Savva, Drawings	20 600	
Hire fees revenue		98 700
Insurance expense	8 180	
Wages expense	50 620	
Advertising expense	3 880	
Maintenance expense	7 600	
Fuel and oil expense	10 680	
	$224 500	$224 500

Additional information

(a) Petrol purchased on credit for $680 plus GST of 10% and used during the last week in June has not been paid for or recorded.

(b) A physical count showed office supplies totalling $340 were still on hand at 30 June.

(c) Depreciation for 1 year on the hire cars is $12 400. Depreciation on the office equipment is $980.

(d) The balance in the Advertising Expense account includes $600 prepayment (net of GST) for an advertising campaign beginning in July.

(e) The balance in the Unearned Hire Fees account includes $1800 received in May for hire services completed in June.

(f) The June insurance premium of $700 plus GST is overdue and has not been recorded. A tax invoice has not been received.

(g) Wages earned but not paid amounted to $1150.

Required

A. Prepare a 10-column worksheet for the year ended 30 June 2016.
B. Prepare the income statement for the business for the year ended 30 June 2016.
C. Prepare a statement of changes in equity for the year ended 30 June 2016.
D. Prepare a balance sheet as at 30 June 2016.

DECISION ANALYSIS

Home sewing business

Lana Priest set up a home sewing business on 1 July 2016. Usually, Lana collects $20 per hour for sewing on the completion of each day's work and pays for the maintenance of her machine with cash. Lana did an accounting subject at secondary school and so has kept her own accrual-based accounting records. At the end of the first year, Lana produced the following unadjusted trial balance:

Unadjusted Trial Balance
as at 30 June 2017

Account	Debit	Credit
Cash at bank	$ 2 550	
Accounts receivable	40	
Sewing machines	3 000	
Motor vehicle	24 000	
Lana Priest, Capital		$19 000
Lana Priest, Drawings	17 570	
Sewing revenue		38 400
Sewing supplies expense	4 840	
Insurance	2 300	
Repairs to machines	2 560	
Sundry expenses	540	
	$57 400	$57 400

The following adjustments were required at the year-end.

- Sewing supplies on hand at year-end, $230.
- An account was received for repairs done to machines before year-end but not recorded, $270. Ignore the GST in your answers.

Required

A. Prepare an income statement for the year ended 30 June 2017 using accrual accounting.
B. Prepare an income statement for the year ended 30 June 2017 using cash accounting.
C. Lana was not sure whether she could use cash accounting rather than accrual accounting for her business records. From the information provided, decide whether Lana should use accrual or cash accounting, and explain to her the reasons for your decision.

COMMUNICATION AND LEADERSHIP

End-of-period adjusting entries

In groups of three, select three companies and obtain a copy of their financial statements. Paper copies can be obtained from the companies, and electronic copies are available for most publicly listed companies on their websites. Alternatively, many university libraries have a copy of public company accounts in electronic form.

Required

A. For each of the three companies, find information on accruals and deferrals in the financial statements. These will usually be in the notes to the financial statements, and will include such things as depreciation expense, prepaid rent, unearned fees, salaries payable and interest payable. Compare the accruals and deferrals with the profit for each company to assess the impact of accrual accounting adjustments on the measures of profitability.
B. Prepare an overhead of your group's findings to present to the class.

ETHICS AND GOVERNANCE

The impact of a bonus incentive scheme on the financial statements

Lucia works as an accountant for a motor vehicle engine parts manufacturer called Vroom Ltd, owned by an international car firm. Her manager, Freda Chuse, is paid a bonus depending on the profitability of the company. If Vroom Ltd makes $1 million profit, Freda receives a bonus of $20 000 that increases progressively to $30 000 for a $3 million profit. If the profit of Vroom Ltd exceeds $3 million, Freda receives the maximum bonus of $30 000. Vroom Ltd currently receives a grant from the government of $100 000 per year to employ and train apprentice mechanics.

At the end of May, it appears that Vroom Ltd will make a profit of approximately $3.5 million for the year ending 30 June 2016. Freda approached Lucia and said that if the company made too much profit then the government may stop paying Vroom Ltd the grant for training apprentice mechanics, and it would lose the $100 000 tax-free cash inflow. Freda instructed Lucia to find ways of deferring recognition of as much revenue as possible until the following financial year, for which the forecasts for the industry were quite poor, and to accrue as many expenses as possible at the end of the current accounting period when it came to making the end-of-period adjustments. Although Lucia was not happy with this instruction, she did not want to risk her own opportunities for promotion by upsetting her manager.

Required

A. Who are the stakeholders in this situation?
B. Why do you believe Freda asked Lucia to do this?
C. What are the ethical issues involved?
D. Can Lucia defer revenues and accrue as many expenses as possible and still be ethical?

FINANCIAL ANALYSIS

Refer to the income (revenues) and expenses as shown in the notes in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions:

1. Which of these items, if any, would have been affected by adjusting entries for deferrals?
2. Which of these items, if any, would have been affected by adjusting entries for accruals?
3. What is the total amount of expense for depreciation of plant and equipment?

1. The formula for calculating interest is as follows:
Principal × Rate × Time = Interest
For this entry the interest is $1600 calculated for simplicity as follows:
$240 000 × 8% × 1/12 = $1600

2. For simplicity, the entry provided ignores GST in that there is no tax invoice issued at this point by the electricity supplier. The tax invoice, showing GST to be paid, will be issued in the next accounting period. Nevertheless, a good conceptual argument exists for recognising a GST receivable in the adjusting entry in order to record the correct liability including the GST for electricity.

3. For simplicity, the GST collection resulting from the marketing services is ignored in the entry as no tax invoice has yet been issued, and no GST is therefore payable for the current period. Nevertheless, a

conceptual argument exists for recording the account receivable at the correct amount to be received, namely $880, including the GST, and recording the GST collection to be paid ($80), even though it is not payable at the end of the current period as no tax invoice has been issued. If a tax invoice had been issued, then the GST Collections account would also have been adjusted.

CHAPTER 5

Completing the accounting cycle — closing and reversing entries

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the steps in the accounting cycle covered to the end of chapter 4 (p. 128)
- the different types of adjusting entries (p. 134)
- how to record and post adjusting entries (pp. 133–45)
- how to prepare an adjusted trial balance (pp. 146–8)
- how to prepare an income statement, a statement of changes in equity and a balance sheet, with assets and liabilities classified into current and non-current categories (pp. 148–53)
- how to prepare a worksheet and how to make adjusting entries on a worksheet (pp. 154–8)
- how to prepare the financial statements from a worksheet (pp. 159–60).

Learning Objectives

After studying this chapter you should be able to:

1 describe all the steps in the complete accounting cycle (pp. 184–5)
2 explain why temporary ledger accounts need to be closed (pp. 185–6)
3 explain how to record adjusting entries from a worksheet (pp. 186–8)
4 describe the closing process, and enter closing entries in accounting records and prepare a post-closing trial balance (pp. 189–205)
5 account for accrual items in subsequent periods using reversing entries (pp. 205–10)
6 prepare the equity accounts for a partnership and for a company (pp. 210–13).

Records at work — society's documentary glue

Records, old and new, come in many forms — paper, film, magnetic tape, optical disks, photographs, even multimedia — and, as the primary support for communication over space and time and means of proving identity and entitlements, records underpin all complex activity.

In the case of businesses or organisations, records are of critical importance. Such bodies cannot legitimately do business, hire staff, buy or sell property, goods and services until the appropriate records documenting their 'birth' and purposes as legal entities permit them to do so.

Individuals, businesses, organisations and government bodies make records to document accomplishments and to solve problems ...

When people make and keep records, they do so because records 'work' to enable them to:

- establish or verify facts
- quantify and calculate possessions, resources, losses
- authorise, initiate, regulate actions
- endow and protect ownership, status, rights, entitlements
- act as reference points within a process to enable planning, reporting, evaluation of critical factors such as progress, productivity, achievement and risk
- trace and enforce accountability
- ensure continuity of management, operations, culture.

How many of the following records are important in your life? Perhaps all of them!

- Accounts/invoices
- Applications
- Certificates
- Contracts
- Conveyances
- Correspondence
- Identity records
- Inventories
- Licences
- Photographs
- Plans
- Receipts

Source: Excerpts from Pederson, A, ‘Understanding society through its records’, John Curtin Prime Ministerial Library, http://john.curtin.edu.au/society/evidence/index.html.

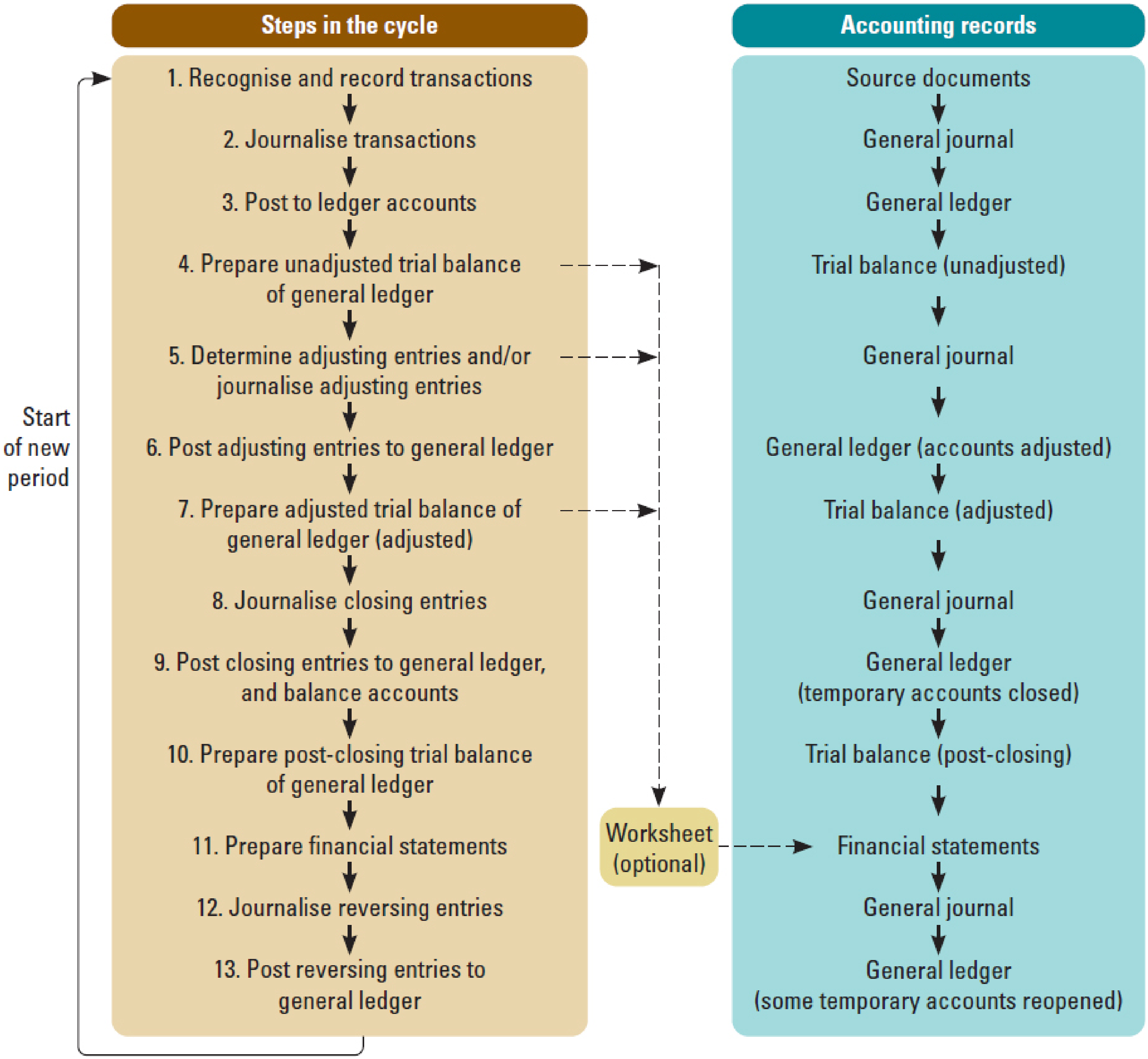
Chapter preview

Record keeping is a vital activity for a business, and an essential part of the accounting cycle. In chapter 4, the accounting cycle was expanded to incorporate adjusting entries made at the end of an accounting period (the financial year) to adjust account balances before preparing the financial statements. Adjusting entries were journalised and then posted to relevant ledger accounts, and the adjusted ledger account balances were used to prepare the financial statements. Use of a worksheet to record adjustments outside the ledger accounts and for the preparation of interim financial statements as well as for the end-of-the-accounting-period statements was also illustrated.

During an accounting period, temporary accounts are used to accumulate income and expenses to enable preparation of the income statement for that period. At the end of each accounting period these temporary accounts need to be cleared so that entries for the new accounting period can be made. The process of clearing temporary accounts is referred to as the ***closing process***, and represents the final step of the accounting cycle.

This chapter illustrates the closing process and the completion of the accounting cycle as shown in figure 5.1.

Figure 5.1 The complete accounting cycle



5.1 The complete accounting cycle

LO 1 **Describe all the steps in the complete accounting cycle.**

The accounting cycle, that sequence of events or steps which leads from source documents to the final production of the financial statements, is completed usually once a year. The accounting cycle developed in chapter 4 is completed in this chapter by including the journalising and posting of closing entries, and the journalising and posting of reversing entries when they are required. The complete accounting cycle is summarised in figure 5.1.

Steps 1 to 3 are carried out continuously during the year as transactions occur. Steps 4 to 13 are carried out only at the end of the accounting period (the financial year). If interim financial statements are prepared, steps 4, 5 and 7 are usually performed on a worksheet outside the accounting journals and ledger. From the worksheet, financial statements can be prepared without journalising adjusting and closing entries and posting these to general ledger accounts. Nevertheless, it is still quite common for accountants to prepare a worksheet even at the end of the financial year accounting period to help organise their work and minimise errors.

LEARNING CHECK

☐ The accounting cycle — the sequence of events from source documents to the final production of financial statements — is completed usually only once a year.

☐ Some steps in the accounting cycle are carried out continuously during the year as transactions occur, whereas others, such as the closing of temporary accounts, are carried out only at the end of the accounting period.

5.2 Closing temporary accounts

LO 2 **Explain why temporary ledger accounts need to be closed.**

The income statement reports income and expenses for a single accounting period. Data needed to prepare the statement are accumulated in the individual income and expense accounts. To help in the preparation of this statement for the ***next*** accounting period, all income and expense account balances are closed or cleared (reduced to a zero balance) by transferring their balances to another account in order to calculate profit. (Recall from chapter 4 that because income and expense accounts are closed each period, they are called ***temporary*** or ***nominal*** accounts.) This step in the accounting cycle is referred to as the closing process, and journal entries made to close the temporary accounts are called **closing entries**.

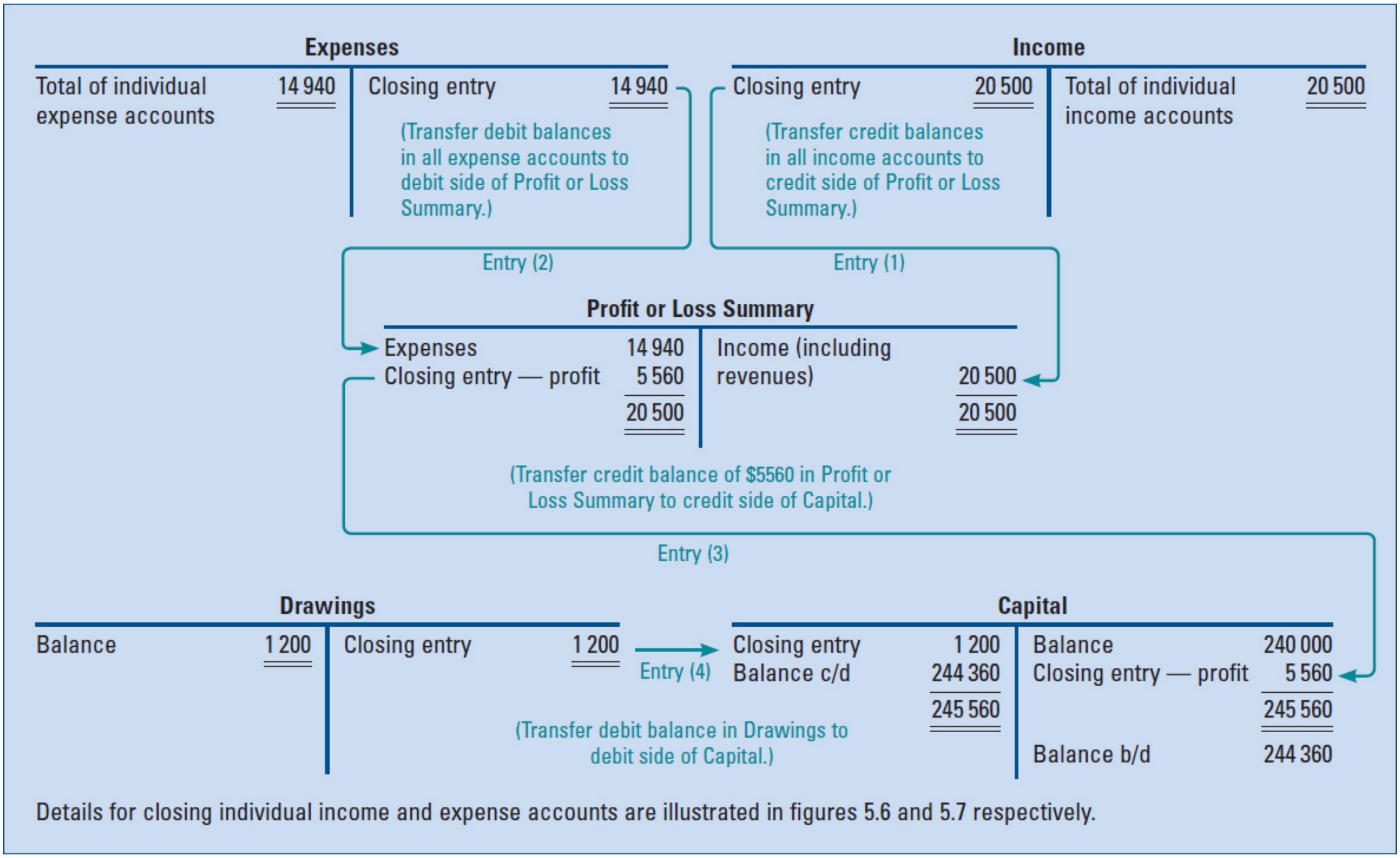
The closing process results in each income and expense account beginning the next period with a zero balance, which prepares them for accumulating information for that period's income statement. In addition, income increases and expenses decrease equity. Because they are recorded in separate temporary accounts rather than directly in the Capital account, journal entries are needed to transfer the net change in equity during the period to the Capital account.

In the closing process, a new temporary account called the ***Profit or Loss Summary*** account is established to summarise the balances in the income and expense accounts and to calculate profit (loss). This is the only time in the accounting process that this account is used. Closing entries are generally made as follows.

1. The balance in each income account is transferred to the Profit or Loss Summary account.
2. The balance in each expense account is transferred to the Profit or Loss Summary account.
3. The balance in the Profit or Loss Summary account is transferred to the Capital account.
4. The Drawings account is transferred to the Capital account.

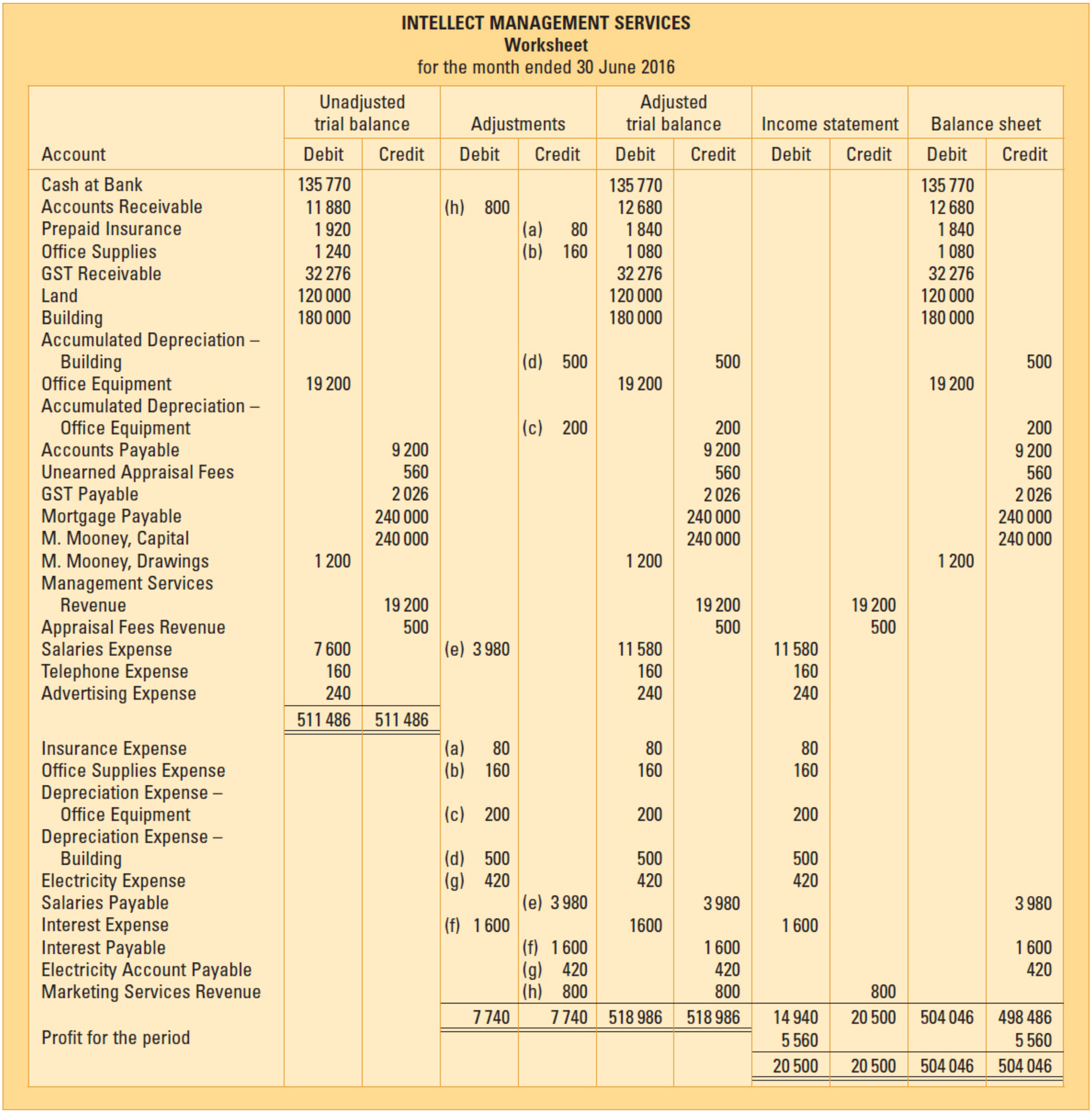
Note that the closing process closes only the temporary ledger accounts. The process is shown in figure 5.2 (p. 186) in T-account format, using the totals from the income statement columns in the worksheet presented in figure 4.21 (p. 157, repeated in figure 5.3, p. 187). When the closing entries are entered in the journal, the individual income and expense accounts are debited or credited.

Figure 5.2 Diagram of the closing process



Details for closing individual income and expense accounts are illustrated in figures 5.6 and 5.7 respectively.

Figure 5.3 Completed worksheet for Intellect Management Services



INTELLECT MANAGEMENT SERVICES
Worksheet
for the month ended 30 June 2016

	Unadjusted trial balance		Adjustments		Adjusted trial balance		Income statement		Balance sheet	
Account	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	135 770				135 770				135 770	
Accounts Receivable	11 880		(h) 800		12 680				12 680	
Prepaid Insurance	1 920			(a) 80	1 840				1 840	
Office Supplies	1 240			(b) 160	1 080				1 080	
GST Receivable	32 276				32 276				32 276	
Land	120 000				120 000				120 000	
Building	180 000				180 000				180 000	
Accumulated Depreciation – Building				(d) 500		500				500
Office Equipment	19 200				19 200				19 200	
Accumulated Depreciation – Office Equipment				(c) 200		200				200
Accounts Payable		9 200				9 200				9 200
Unearned Appraisal Fees		560				560				560
GST Payable		2 026				2 026				2 026
Mortgage Payable		240 000				240 000				240 000
M. Mooney, Capital		240 000				240 000				240 000
M. Mooney, Drawings	1 200				1 200				1 200	
Management Services Revenue		19 200				19 200		19 200		
Appraisal Fees Revenue		500				500		500		
Salaries Expense	7 600		(e) 3 980		11 580		11 580			
Telephone Expense	160				160		160			
Advertising Expense	240				240		240			
	511 486	511 486								
Insurance Expense			(a) 80		80		80			
Office Supplies Expense			(b) 160		160		160			
Depreciation Expense – Office Equipment			(c) 200		200		200			
Depreciation Expense – Building			(d) 500		500		500			
Electricity Expense			(g) 420		420		420			
Salaries Payable				(e) 3 980		3 980				3 980
Interest Expense			(f) 1 600		1600		1 600			
Interest Payable				(f) 1 600		1 600				1 600
Electricity Account Payable				(g) 420		420				420
Marketing Services Revenue				(h) 800		800		800		
			7 740	7 740	518 986	518 986	14 940	20 500	504 046	498 486
Profit for the period							5 560			5 560
							20 500	20 500	504 046	504 046

LEARNING CHECK

- ☐ Income and expense accounts (temporary accounts) are closed at the end of the accounting period by transferring their balances to a Profit or Loss Summary account in order to calculate profit. Journal entries to close the temporary accounts are called ***closing entries***.
- ☐ The balances in the Profit or Loss Summary account and the Drawings account are transferred to the Capital account.

5.3 Using the worksheet to record adjusting entries

LO 3 **Explain how to record adjusting entries from a worksheet.**

As we saw in chapter 4, a worksheet can gather together in the one place all the information needed to adjust account balances and prepare financial statements. It is also useful in preparing interim financial statements when adjusting entries are not recorded in the formal accounting records. The worksheet contains all the information necessary in the adjustments columns to record adjusting entries in the general journal and post to ledger accounts. Also, since all income and expenses are grouped in the income statement columns of the worksheet, all the information necessary to record closing entries in the general journal and post to ledger accounts is readily available.

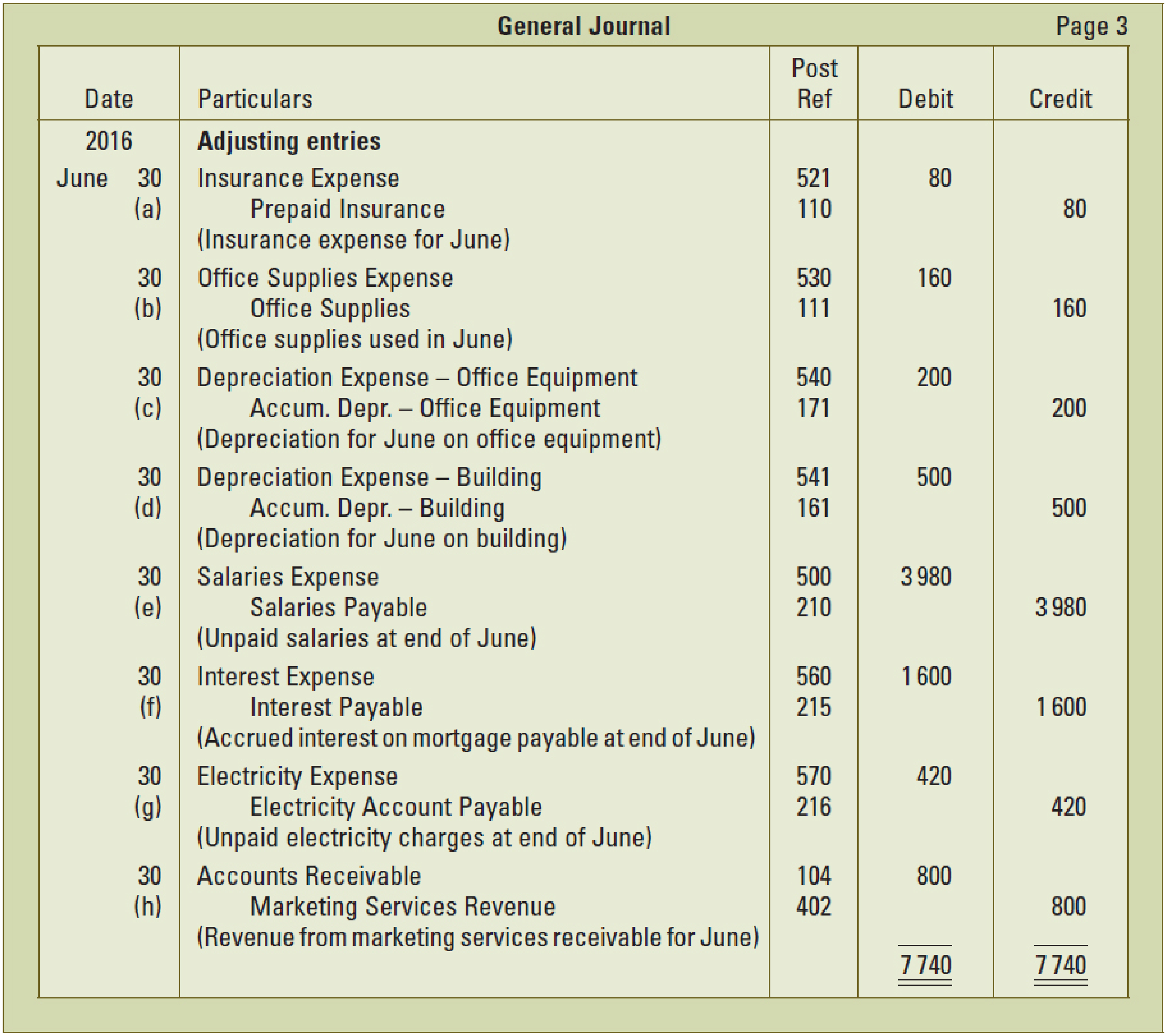
The journalising of adjusting entries from a worksheet is illustrated on the following pages. For easy reference purposes, the worksheet for Intellect Management Services completed in the previous chapter is reproduced in figure 5.3 (p. 187).

It is common practice for an entity to prepare monthly financial statements for use by managers, and most large entities are required to issue quarterly and/or half-yearly statements to external statement users. Such statements are called **interim statements** because they are prepared between the annual reports issued at year-end. In the case of Intellect Management Services, it was assumed that monthly financial statements were to be prepared and that the accounting cycle, including entering and posting both adjusting and closing entries, was completed at the end of the month. However, many entities adjust and close their accounts at the end of the year only. Information needed to prepare interim financial statements is accumulated only in the worksheet. In other words, adjusting entries are made on the worksheet but are not entered in the accounting records except at the end of the accounting year. At that time the accounts are also closed.

Recording adjusting entries

From the worksheet shown in figure 5.3, formal adjusting entries may be entered in the general journal as shown in figure 5.4 (p. 188). The necessary information is available directly from the adjustments columns of the worksheet. Note that the entries are dated on the last day of the accounting period and generally the heading ‘Adjusting entries’ is written in the general journal to separate these entries from other transactions. After the adjusting entries are posted, as indicated by writing the account number in the ‘post ref’ column of the journal, the ledger account balances should agree with the balances reported in the worksheet.

Figure 5.4 Recording adjusting entries



General Journal Page 3

Date	Particulars	Post Ref	Debit	Credit
2016	**Adjusting entries**			
June 30	Insurance Expense	521	80	
(a)	Prepaid Insurance	110		80
	(Insurance expense for June)			
30	Office Supplies Expense	530	160	
(b)	Office Supplies	111		160
	(Office supplies used in June)			
30	Depreciation Expense – Office Equipment	540	200	
(c)	Accum. Depr. – Office Equipment	171		200
	(Depreciation for June on office equipment)			
30	Depreciation Expense – Building	541	500	
(d)	Accum. Depr. – Building	161		500
	(Depreciation for June on building)			
30	Salaries Expense	500	3 980	
(e)	Salaries Payable	210		3 980
	(Unpaid salaries at end of June)			
30	Interest Expense	560	1 600	
(f)	Interest Payable	215		1 600
	(Accrued interest on mortgage payable at end of June)			
30	Electricity Expense	570	420	
(g)	Electricity Account Payable	216		420
	(Unpaid electricity charges at end of June)			
30	Accounts Receivable	104	800	
(h)	Marketing Services Revenue	402		800
	(Revenue from marketing services receivable for June)			
			7 740	7 740

Data for determining the entity's closing entries for the period are found in the income statement columns of the worksheet, as these contain the data for temporary income and expense accounts. The closing process is covered in the next section.

BUSINESS KNOWLEDGE

Blue sky man

Jetstar, the successful offshoot of Qantas, has experienced record growth since its launch in 2004. Last October, CEO Bruce Buchanan predicted that passenger revenue will increase to A$2.6 billion in the 12 months to 30 June 2010, from around A$2.3 billion in the previous year. Meanwhile, AirAsia — voted best low-cost airline in the world in last year's prestigious Skytrax awards — dominates in the South-East Asian market. Analysts have called the alliance a 'killer proposition', where hundreds of millions of dollars will be saved through the joint purchase of aircraft and the sharing of ground operations and aircraft parts.

Jetstar and AirAsia are the two largest low-cost airlines (in revenue terms) in the Asia Pacific. Together they earned nearly A$3 billion in 2009. CEO Bruce Buchanan says: 'Jetstar is the number one in terms of revenue and RPKs [revenue passenger kilometres] and AirAsia's the number one in terms of passengers. Our long-haul network's a lot bigger. But we are both very profitable and growing much faster than the competition.'

Source: Excerpts from Blondell, J 2010, 'Blue sky man', ***InTheBlack***, April.

LEARNING CHECK

- ☐ A worksheet can be useful in preparing interim financial statements when adjusting entries are not recorded in the formal accounting records. The worksheet contains all the information necessary to record adjusting entries in the general journal and post to ledger accounts.
- ☐ Similarly, since all income and expenses are shown on the worksheet, all the information needed to record closing entries in the general journal and post to ledger accounts is readily available.

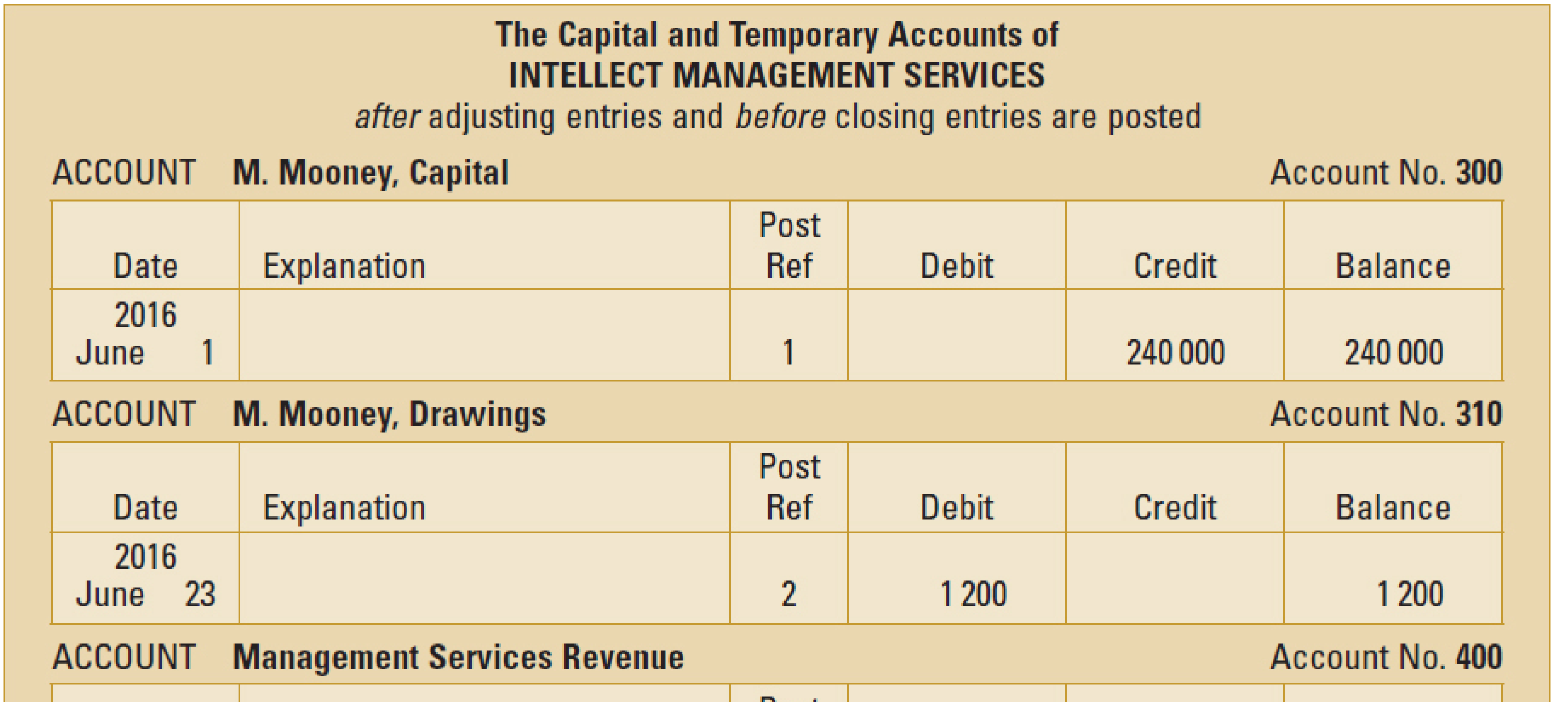
5.4 The closing process

LO 4 Describe the closing process, and enter closing entries in accounting records and prepare a post-closing trial balance.

The closing process involves closing each income and expense account to the Profit or Loss Summary account, and the balance of this account (profit or loss) is then closed off to the Capital account. Any drawings made by the owner during the year are reflected in the Drawings account, which is also closed off to the Capital account. The closing of all temporary accounts is done by making compound general journal entries, and then posting to the relevant accounts. Closing entries are not shown on a worksheet, but the information necessary to make the general journal entries is available from the worksheet. The closing process is illustrated below.

The equity, income and expense account balances (in running balance format) after the adjusting entries are posted are shown for Intellect Management Services in figure 5.5. (These accounts were shown in figure 4.13 on pages 146–7 in T-account format.)

Figure 5.5 Equity accounts after adjusting entries and before closing entries



The Capital and Temporary Accounts of
INTELLECT MANAGEMENT SERVICES
after adjusting entries and *before* closing entries are posted

ACCOUNT **M. Mooney, Capital** Account No. **300**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 1		1		240 000	240 000

ACCOUNT **M. Mooney, Drawings** Account No. **310**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 23		2	1 200		1 200

ACCOUNT **Management Services Revenue** Account No. **400**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	15		1		8 400	8 400
	19		2		10 800	19 200

ACCOUNT **Appraisal Fees Revenue** Account No. **401**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	23		2		500	500

ACCOUNT **Marketing Services Revenue** Account No. **402**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (h)	3		800	800

ACCOUNT **Salaries Expense** Account No. **500**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	22		2	7 600		7 600
	30	Adj. ent. (e)	3	3 980		11 580

ACCOUNT **Telephone Expense** Account No. **510**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30		2	160		160

ACCOUNT **Advertising Expense** Account No. **520**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	6		1	240		240

ACCOUNT **Insurance Expense** Account No. **521**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (a)	3	80		80

ACCOUNT **Office Supplies Expense** Account No. **530**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (b)	3	160		160

ACCOUNT **Depreciation Expense — Office Equipment** Account No. **540**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (c)	3	200		200

ACCOUNT **Depreciation Expense — Building** Account No. **541**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (d)	3	500		500

ACCOUNT **Interest Expense** Account No. **560**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (f)	3	1 600		1 600

ACCOUNT **Electricity Expense** Account No. **570**

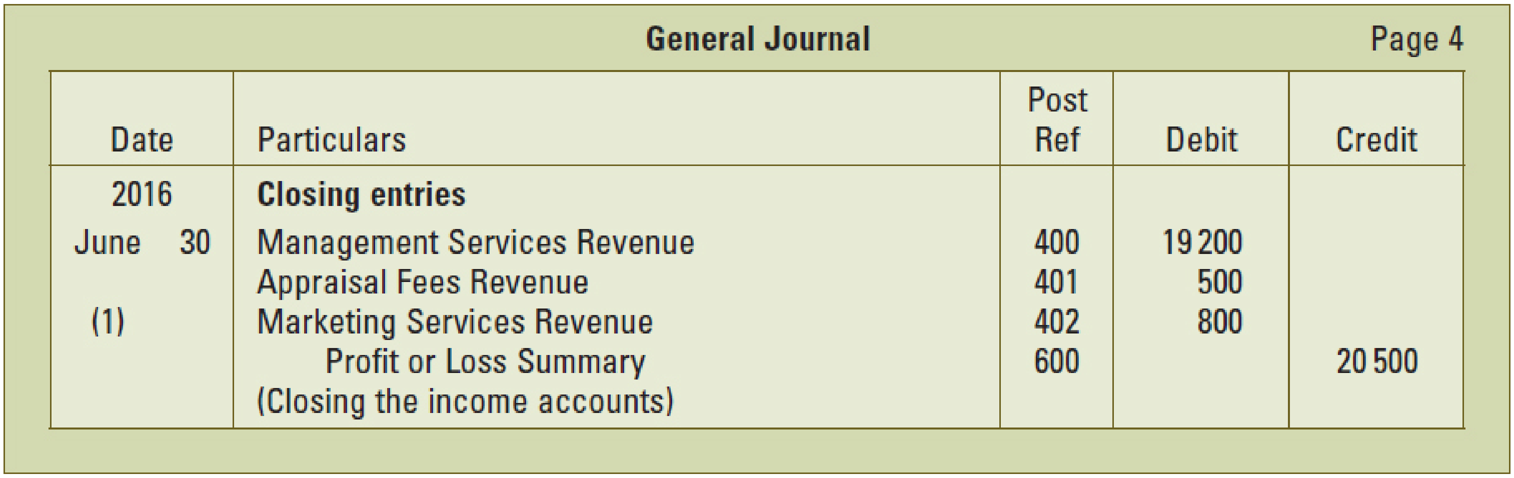
Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (g)	3	420		420

ACCOUNT **Profit or Loss Summary** Account No. **600**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					

Closing the income (including revenue) accounts

An income account normally contains a credit balance. Hence, to close the account, it must be debited for an amount equal to its credit balance. The offsetting credit is made to the Profit or Loss Summary account. The compound journal entry needed to close the income accounts is:



General Journal Page 4

Date	Particulars	Post Ref	Debit	Credit
2016	**Closing entries**			
June 30	Management Services Revenue	400	19 200	
	Appraisal Fees Revenue	401	500	
(1)	Marketing Services Revenue	402	800	
	Profit or Loss Summary	600		20 500
	(Closing the income accounts)			

In the journal, the adjusting entries are separated from the closing entries by the heading ‘Closing entries’. For posting purposes, it is assumed that the closing entries are entered on page 4 of the general journal. Also, account numbers are entered in the posting reference column when the entry is posted to the ledger.

The effect of this entry is to reduce each of the income accounts to a zero balance for the start of the next period and transfer the sum of their credit balances to the credit side of the Profit or Loss Summary account, as shown in figure 5.6.

Figure 5.6 Closing the income accounts to the Profit or Loss Summary

ACCOUNT **Management Services Revenue** Account No. **400**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	15		1		8 400	8 400
	19		2		10 800	19 200
	30	Clos. ent.	4	19 200		—

ACCOUNT **Appraisal Fees Revenue** Account No. **401**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	23		2		500	500
	30	Clos. ent.	4	500		—

ACCOUNT **Marketing Services Revenue** Account No. **402**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (h)	3		800	800
	30	Clos. ent.	4	800		—

ACCOUNT **Profit or Loss Summary** Account No. **600**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Clos. ent.	4		20 500	20 500

19 200
500
800
20 500

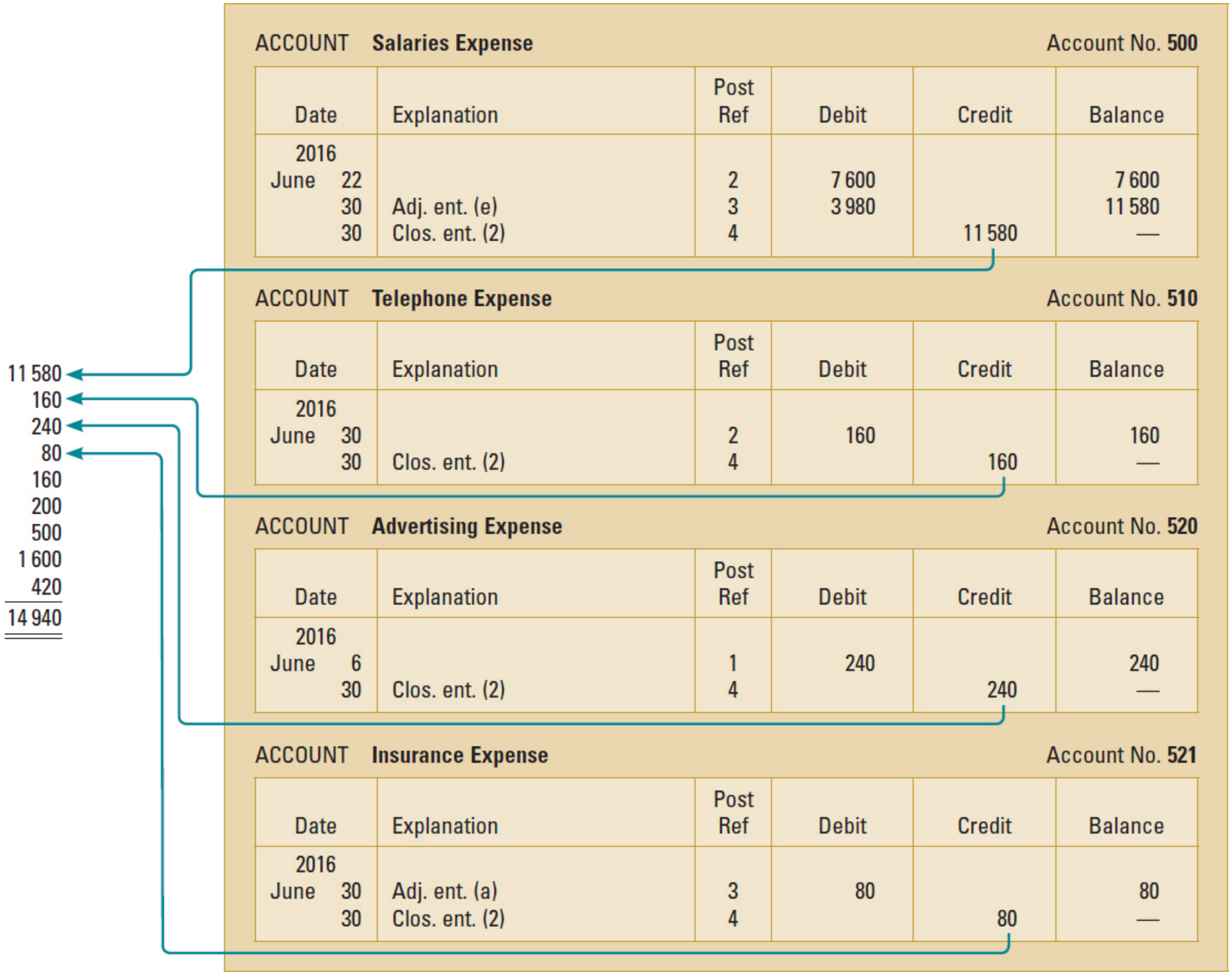
Closing the expense accounts

Expense accounts normally have debit balances. In order to close the expense accounts, each account is therefore credited for an amount equal to its balance, and the Profit or Loss Summary account is debited for the sum of the individual balances. The compound journal entry is entered on page 4 of the journal (underneath closing entry (1) shown on the previous page) as below:

June	30	Profit or Loss Summary	600	14 940	
		Salaries Expense	500		11 580
(2)		Telephone Expense	510		160
		Advertising Expense	520		240
		Insurance Expense	521		80
		Office Supplies Expense	530		160
		Depreciation Expense – Office Equipment	540		200
		Depreciation Expense – Building	541		500
		Interest Expense	560		1 600
		Electricity Expense	570		420
		(Closing the expense accounts)			

As shown in figure 5.7, the entry reduces the expense accounts to a zero balance and transfers the total of $7470 as a debit to the Profit or Loss Summary account.

Figure 5.7 Closing the expense accounts to the Profit or Loss Summary



ACCOUNT **Salaries Expense** Account No. **500**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 22		2	7 600		7 600
30	Adj. ent. (e)	3	3 980		11 580
30	Clos. ent. (2)	4		11 580	—

ACCOUNT **Telephone Expense** Account No. **510**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30		2	160		160
30	Clos. ent. (2)	4		160	—

ACCOUNT **Advertising Expense** Account No. **520**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 6		1	240		240
30	Clos. ent. (2)	4		240	—

ACCOUNT **Insurance Expense** Account No. **521**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (a)	3	80		80
30	Clos. ent. (2)	4		80	—

11 580
160
240
80
160
200
500
1 600
420
14 940

ACCOUNT **Office Supplies Expense** Account No. **530**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (b)	3	160		160
	30	Clos. ent. (2)	4		160	—

ACCOUNT **Depreciation Expense – Office Equipment** Account No. **540**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (c)	3	200		200
	30	Clos. ent. (2)	4		200	—

ACCOUNT **Depreciation Expense – Building** Account No. **541**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (d)	3	500		500
	30	Clos. ent. (2)	4		500	—

ACCOUNT **Interest Expense** Account No. **560**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (f)	3	1 600		1 600
	30	Clos. ent. (2)	4		1 600	—

ACCOUNT **Electricity Expense** Account No. **570**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (g)	3	420		420
	30	Clos. ent. (2)	4		420	—

ACCOUNT **Profit or Loss Summary** Account No. **600**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Clos. ent. (1)	4		20 500	20 500
	30	Clos. ent. (2)	4	14 940		5 560

11 580
160
240
80
160
200
500
1 600
420
14 940

Closing the Profit or Loss Summary account

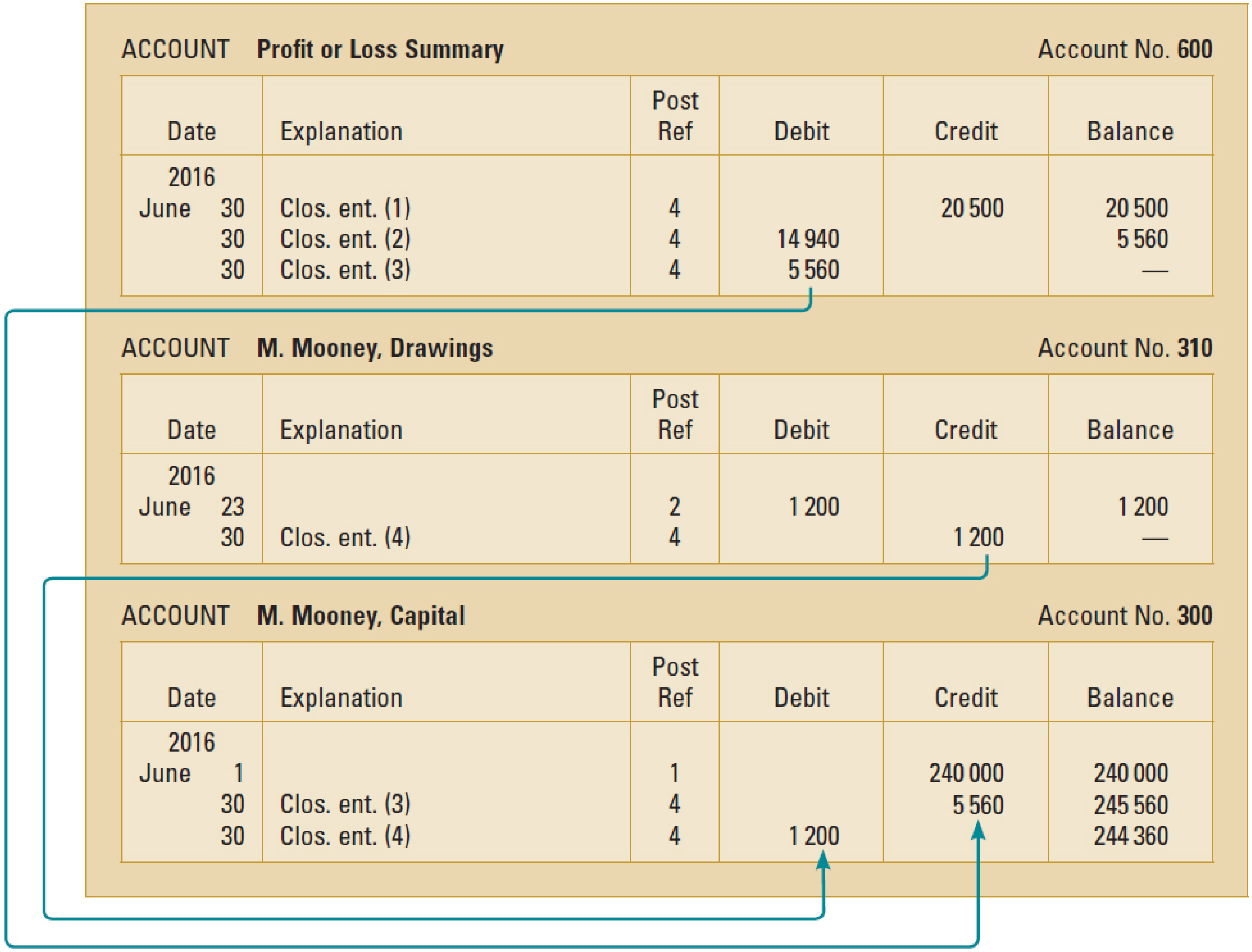
After the first two closing entries are posted, the balances formerly reported in the individual income and expense accounts are summarised in the Profit or Loss Summary account. If income exceeds expenses, a profit is recognised and the Profit or Loss Summary account will contain a credit balance. If expenses exceed income, a loss is indicated and the account will have a debit balance. In either case, the balance is transferred to the Capital account.

Intellect Management Services earned a profit during June. The credit balance of $5560 in the Profit or Loss Summary account is closed by recording the entry on page 4 of the journal (underneath closing entry (2) shown previously) as follows:

June 30	Profit or Loss Summary	600	5 560	
	M. Mooney, Capital	300		5 560
(3)	(Closing the Profit or Loss Summary account)			

This entry is posted to the accounts as shown in figure 5.8. The effect of this entry is to recognise that the net assets (assets minus liabilities) increased this period owing to profitable operations, and this increase in net assets adds to the owner's interest in the business. If a loss is reported, the Profit or Loss Summary account is credited to reduce the account to a zero balance and the Capital account is debited to reflect a decrease in equity.

Figure 5.8 Closing the Profit or Loss Summary and Drawings accounts



ACCOUNT **Profit or Loss Summary** Account No. **600**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Clos. ent. (1)	4		20 500	20 500
30	Clos. ent. (2)	4	14 940		5 560
30	Clos. ent. (3)	4	5 560		—

ACCOUNT **M. Mooney, Drawings** Account No. **310**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 23		2	1 200		1 200
30	Clos. ent. (4)	4		1 200	—

ACCOUNT **M. Mooney, Capital** Account No. **300**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 1		1		240 000	240 000
30	Clos. ent. (3)	4		5 560	245 560
30	Clos. ent. (4)	4	1 200		244 360

Closing the Drawings account

The debit balance in the Drawings account reflects the decrease in the owner's interest during the period resulting from the withdrawal of cash and/or other assets for personal use. Note that the Drawings account is not closed to the Profit or Loss Summary account because the withdrawal of assets by the owner is not an expense of doing business. The balance in the account is transferred directly to the Capital account by the following entry (again recorded on page 4 of the journal after closing entry (3) shown above):

June 30	M. Mooney, Capital	300	1 200	
	M. Mooney, Drawings	310		1 200
(4)	(Closing the Drawings account)			

After the entry is posted, the Drawings account will have a zero balance, as shown in figure 5.8.

Account balances after the closing process

The detailed accounts for Intellect Management Services, after both the adjusting and closing entries have been posted, are presented in figure 5.9. Note that the income (revenue), expense and drawings accounts all have zero balances and are ready for recording transactions in the next period. The balances in the asset, liability and equity accounts are carried forward to the next period and are the only accounts that have balances. These balances are then reported in the balance sheet (also called the statement of financial position) (see later).

Figure 5.9 General ledger after the closing process (running balance accounts)

INTELLECT MANAGEMENT SERVICES

ACCOUNT **Cash at Bank** Account No. **100**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 1	M. Mooney, Capital	1	240 000		240 000
2	Land/Building/GST Receivable	1		90 000	150 000
3	Prepaid Insurance/GST Receivable	1		2 112	147 888
5	Office Equipment/GST Receivable	1		11 920	135 968
6	Advertising Expense/ GST Receivable	1		264	135 704
22	Salaries Expense	2		7 600	128 104
23	Appraisal Fees Revenue/ GST Payable	2	550		128 654
23	M. Mooney, Drawings	2		1 200	127 454
27	Accounts Payable	2		1 364	126 090
29	Unearned Appraisal Fees/ GST Payable	2	616		126 706
30	Telephone Expense/ GST Receivable	2		176	126 530
30	Accounts Receivable	2	9 240		135 770

ACCOUNT **Accounts Receivable** Account No. **104**

Post

Date	Explanation	Ref	Debit	Credit	Balance
2016					
June 15	Management Services Revenue/ GST Payable	1	9 240		9 240
19	Management Services Revenue/ GST Payable	2	11 880		21 120
30	Cash at Bank	2		9 240	11 880
30	Adj. ent. (h)	3	800		12 680

ACCOUNT **Prepaid Insurance** Account No. **110**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 3	Cash at Bank	1	1 920		1 920
30	Adj. ent. (a)	3		80	1 840

ACCOUNT **Office Supplies** Account No. **111**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 5	Accounts Payable	1	1 240		1 240
30	Adj. ent. (b)	3		160	1 080

ACCOUNT **GST Receivable** Account No. **120**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 2	Cash at Bank/Mortgage Payable	1	30 000		30 000
3	Cash at Bank	1	192		30 192
5	Accounts Payable	1	124		30 316
5	Cash at Bank/Accounts Payable	1	1 920		32 236
6	Cash at Bank	1	24		32 260
30	Cash at Bank	2	16		32 276

ACCOUNT **Land** Account No. **150**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 2	Cash at Bank/Mortgage Payable	1	120 000		120 000

June 2	Cash at Bank/Mortgage Payable	1	120 000		120 000

ACCOUNT **Building** Account No. **160**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 2	Cash at Bank/Mortgage Payable	1	180 000		180 000

ACCOUNT **Accumulated Depreciation – Building** Account No. **161**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (d)	3		500	500

ACCOUNT **Office Equipment** Account No. **170**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 5	Cash at Bank/Accounts Payable	1	19 200		19 200

ACCOUNT **Accumulated Depreciation – Office Equipment** Account No. **171**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 30	Adj. ent. (c)	3		200	200

ACCOUNT **Accounts Payable** Account No. **200**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016 June 5	Office Supplies/GST Receivable	1		1 364	1 364
5	Office Equipment/GST Receivable	1		9 200	10 564
27	Cash at Bank	2	1 364		9 200

ACCOUNT **Salaries Payable** Account No. **210**

Date	Explanation	Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (e)	3		3 980	3 980

ACCOUNT **Interest Payable** Account No. **215**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (f)	3		1 600	1 600

ACCOUNT **Electricity Account Payable** Account No. **216**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (g)	3		420	420

ACCOUNT **Unearned Appraisal Fees** Account No. **220**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 29	Cash at Bank	2		560	560

ACCOUNT **GST Payable** Account No. **250**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 15	Accounts Receivable	1		840	840
19	Accounts Receivable	2		1 080	1 920
23	Cash at Bank	2		50	1 970
29	Cash at Bank	2		56	2 026

ACCOUNT **Mortgage Payable** Account No. **260**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 2	Land/Buildings/GST Receivable	1		240 000	240 000

ACCOUNT **M. Mooney, Capital** Account No. **300**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 1	Cash at Bank	1		240 000	240 000
30	Clos. ent. (3)	4		5 560	245 560
30	Clos. ent. (4)	4	1 200		244 360

ACCOUNT **M. Mooney, Drawings** Account No. **310**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 23	Cash at Bank	2	1 200		1 200
30	Clos. ent. (4)	4		1 200	—

ACCOUNT **Management Services Revenue** Account No. **400**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 15	Accounts Receivable	1		8 400	8 400
19	Accounts Receivable	2		10 800	19 200
30	Clos. ent. (1)	4	19 200		—

ACCOUNT **Appraisal Fees Revenue** Account No. **401**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 23	Cash at Bank	2		500	500
30	Clos. ent. (1)	4	500		—

ACCOUNT **Marketing Services Revenue** Account No. **402**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (h)	3		800	800
30	Clos. ent. (1)	4	800		—

ACCOUNT **Salaries Expense** Account No. **500**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	22	Cash at Bank	2	7 600		7 600
	30	Adj. ent. (e)	3	3 980		11 580
	30	Clos. ent. (2)	4		11 580	—

ACCOUNT **Telephone Expense** Account No. **510**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Cash at Bank	2	160		160
	30	Clos. ent. (2)	4		160	—

ACCOUNT **Advertising Expense** Account No. **520**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	6	Cash at Bank	1	240		240
	30	Clos. ent. (2)	4		240	—

ACCOUNT **Insurance Expense** Account No. **521**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (a)	3	80		80
	30	Clos. ent. (2)	4		80	—

ACCOUNT **Office Supplies Expense** Account No. **530**

Date		Explanation	Post Ref	Debit	Credit	Balance
2016						
June	30	Adj. ent. (b)	3	160		160
	30	Clos. ent. (2)	4		160	—

ACCOUNT **Depreciation Expense – Office Equipment** Account No. **540**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (c)	3	200		200
30	Clos. ent. (2)	4		200	—

ACCOUNT **Depreciation Expense – Building** Account No. **541**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (d)	3	500		500
30	Clos. ent. (2)	4		500	—

ACCOUNT **Interest Expense** Account No. **560**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (f)	3	1 600		1 600
30	Clos. ent. (2)	4		1 600	—

ACCOUNT **Electricity Expense** Account No. **570**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (g)	3	420		420
30	Clos. ent. (2)	4		420	—

ACCOUNT **Profit or Loss Summary** Account No. **600**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Clos. ent. (1)	4		20 500	20 500
30	Clos. ent. (2)	4	14 940		5 560
30	Clos. ent. (3)	4	5 560		—

Figure 5.9 illustrates how running balance accounts of Intellect Management Services would appear in the ledger after adjusting and closing entries have been posted. If T accounts are prepared in the ledger, it is

necessary formally to close off the temporary accounts at the end of the financial year by inserting totals, and to balance all the permanent accounts. Unlike the running balance accounts, T accounts do not show continuous balances. The ledger of Intellect Management Services based on T accounts is presented in figure 5.10.

Figure 5.10 General ledger after completion of the closing process (T-account format)

General Ledger

Cash at Bank

Account No. **100**

2016				2016			
1/6	M. Mooney, Capital	(1)	240 000	2/6	Land/Building/GST Receivable	(1)	90 000
23/6	Appraisal Fees Rev./ GST Payable	(2)	550	3/6	Prepaid Insurance/ GST Receivable	(1)	2 112
29/6	Unearned Appraisal Fees/ GST Payable	(2)	616	5/6	Office Equipment/ GST Receivable	(1)	11 920
30/6	Accounts Receivable	(2)	9 240	6/6	Advertising Expense/ GST Receivable	(1)	264
				22/6	Salary Expense	(2)	7 600
				23/6	M. Mooney, Drawings	(2)	1 200
				27/6	Accounts Payable	(2)	1 364
				30/6	Telephone Expense/ GST Receivable	(2)	176
				30/6	Balance c/d		135 770
			250 406				250 406
1/7	Balance b/d		135 770				

Accounts Receivable

Account No. **104**

2016				2016			
15/6	Man. Services Rev./ GST Payable	(1)	9 240	30/6	Cash at Bank	(2)	9 240
19/6	Man. Services Rev./ GST Payable	(2)	11 880				
30/6	Adj. ent. (h)	(3)	800	30/6	Balance c/d		12 680
			21 920				21 920
1/7	Balance b/d		12 680				

Prepaid Insurance

Account No. **110**

2016				2016			
3/6	Cash at Bank/GST Receivable	(1)	1 920	30/6	Adj. ent. (a)	(3)	80
				30/6	Balance c/d		1 840
			1 920				1 920
1/7	Balance b/d		1 840				

Office Supplies Account No. **111**

Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
2016				2016			
5/6	Accounts Payable	(1)	1 240	30/6	Adj. ent. (b)	(3)	160
				30/6	Balance c/d		1 080
			1 240				1 240
1/7	Balance b/d		1 080				

GST Receivable Account No. **120**

Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
2016				2016			
2/6	Cash at Bank/ Mortgage Payable	(1)	30 000	30/6	Balance c/d		32 276
3/6	Cash at Bank	(1)	192				
5/6	Accounts Payable	(1)	124				
5/6	Cash at Bank/ Accounts Payable	(1)	1 920				
6/6	Cash at Bank	(1)	24				
30/6	Cash at Bank	(2)	16				
			32 276				32 276
1/7	Balance b/d		32 276				

Land Account No. **150**

Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
2016				2016			
2/6	Cash at Bank/ Mortgage Payable	(1)	120 000	30/6	Balance c/d		120 000
1/7	Balance b/d		120 000				

Building Account No. **160**

Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
2016				2016			
2/6	Cash at Bank/ Mortgage Payable	(1)	180 000	30/6	Balance c/d		180 000
1/7	Balance b/d		180 000				

Accumulated Depreciation – Building Account No. **161**

Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
2016				2016			
30/6	Balance c/d		500	30/6	Adj. ent. (d)	(3)	500

				1/7	Balance b/d		500

Office Equipment Account No. **170**

2016				2016			
5/6	Cash at Bank/ Accounts Payable	(1)	19 200	30/6	Balance c/d		19 200
1/7	Balance b/d		19 200				

Accumulated Depreciation – Office Equipment Account No. **171**

2016				2016			
30/6	Balance c/d		200	30/6	Adj. ent. (c)	(3)	200
				1/7	Balance b/d		200

Accounts Payable Account No. **200**

2016				2016			
27/6	Cash at Bank	(2)	1 364	5/6	Office Supplies/GST Receivable	(1)	1 364
30/6	Balance c/d		9 200	5/6	Office Equipment/GST Receivable	(1)	9 200
			10 564				10 564
				1/7	Balance b/d		9 200

Salaries Payable Account No. **210**

2016				2016			
30/6	Balance c/d		3 980	30/6	Adj. ent. (e)		3 980
				1/7	Balance b/d		3 980

Interest Payable Account No. **215**

2016				2016			
30/6	Balance c/d		1 600	30/6	Adj. ent. (f)	(3)	1 600
				1/7	Balance b/d		1 600

Electricity Account Payable Account No. **216**

2016				2016			

30/6	Balance c/d		420	30/6	Adj. ent. (h)	(3)	420
				1/7	Balance b/d		420

Unearned Appraisal Fees — Account No. **220**

2016				2016			
30/6	Balance c/d		560	30/6	Cash at Bank	(2)	560
				1/7	Balance b/d		560

GST Payable — Account No. **250**

2016				2016			
30/6	Balance c/d		2 026	15/6	Accounts Receivable	(1)	840
				19/6	Accounts Receivable	(2)	1 080
				23/6	Cash at Bank	(2)	50
				29/6	Cash at Bank	(2)	56
			2 026				2 026
				1/7	Balance b/d		2 026

Mortgage Payable — Account No. **260**

2016				2016			
30/6	Balance c/d	(1)	240 000	2/6	Land/Buildings/GST Receivable	(1)	240 000
				1/7	Balance b/d		240 000

M. Mooney, Capital — Account No. **300**

2016				2016			
30/6	Clos. ent. (4)	(4)	1 200	1/6	Cash at Bank	(1)	240 000
30/6	Balance c/d		244 360	30/6	Clos. ent. (3)	(4)	5 560
			245 560				245 560
				1/7	Balance b/d		244 360

M. Mooney, Drawings — Account No. **310**

2016				2016			
23/6	Cash at Bank	(2)	1 200	30/6	Clos. ent. (4)	(4)	1 200

Management Services Revenue — Account No. **400**

2016				2016			
30/6	Clos. ent. (1)	(4)	19 200	15/6	Accounts Receivable	(1)	8 400
				19/6	Accounts Receivable	(2)	10 800
			19 200				19 200

Appraisal Fees Revenue Account No. **401**

2016				2016			
30/6	Clos. ent. (1)	(4)	500	23/6	Cash at Bank	(2)	500

Marketing Services Revenue Account No. **402**

2016				2016			
30/6	Clos. ent. (1)	(4)	800	30/6	Adj. ent. (h)	(3)	800

Salaries Expense Account No. **500**

2016				2016			
22/6	Cash at Bank	(2)	7 600	30/6	Clos. ent. (2)	(4)	11 580
30/6	Adj. ent. (e)	(3)	3 980				
			11 580				11 580

Telephone Expense Account No. **510**

2016				2016			
30/6	Cash at Bank	(2)	160	30/6	Clos. ent. (2)	(4)	160

Advertising Expense Account No. **520**

2016				2016			
6/6	Cash at Bank	(1)	240	30/6	Clos. ent. (2)	(4)	240

Insurance Expense Account No. **521**

2016				2016			
30/6	Adj. ent. (a)	(3)	80	30/6	Clos. ent. (2)	(4)	80

Office Supplies Expense Account No. **530**

2016				2016			
30/6	Adj. ent. (b)	(3)	160	30/6	Clos. ent. (2)	(4)	160

Depreciation Expense – Office Equipment Account No. **540**

2016				2016			
30/6	Adj. ent. (c)	(3)	200	30/6	Clos. ent. (2)	(4)	200

Depreciation Expense – Building Account No. **541**

2016				2016			
30/6	Adj. ent. (d)	(3)	500	30/6	Clos. ent. (2)	(4)	500

Interest Expense Account No. **560**

2016				2016			
30/6	Adj. ent. (f)	(3)	1 600	30/6	Clos. ent. (2)	(4)	1 600

Electricity Expense Account No. **570**

2016				2016			
30/6	Adj. ent. (g)	(3)	420	30/6	Clos. ent. (2)	(4)	420

Profit or Loss Summary Account No. **600**

2016				2016			
30/6	Clos. ent. (2)	(4)	14 940	30/6	Clos. ent. (1)	(4)	20 500
30/6	Clos. ent. (3)	(4)	5 560				
			20 500				20 500

A computerised accounting system offers economy of time and effort when it comes to closing entries. The computerised system may be programmed to close off the temporary accounts in the general ledger whenever instructed to do so.

The post-closing trial balance

After the closing entries have been posted, it is desirable to prepare a **post-closing trial balance** to verify the equality of debits and credits in the general ledger, and confirm that the ledger is ‘in balance’. At this point, only the permanent accounts will have balances. It is these balances that are then used to prepare the end-of-period post-closing trial balance and the balance sheet. These balances are also the starting point for the next accounting period. A post-closing trial balance for Intellect Management Services is presented in figure 5.11.

Figure 5.11 Post-closing trial balance

INTELLECT MANAGEMENT SERVICES
Post-Closing Trial Balance
as at 30 June 2016

Account	Account no.	Account balance	
		Debit	Credit
Cash at bank	100	$135 770	
Accounts receivable	104	12 680	
Prepaid insurance	110	1 840	
Office supplies	111	1 080	
GST receivable	120	32 276	
Land	150	120 000	
Building	160	180 000	
Accumulated depreciation – building	161		$ 500
Office equipment	170	19 200	
Accumulated depreciation – office equipment	171		200
Accounts payable	200		9 200
Salaries payable	210		3 980
Interest payable	215		1 600
Electricity account payable	216		420
Unearned appraisal fees	220		560
GST payable	250		2 026
Mortgage payable	260		240 000
M. Mooney, Capital	300		244 360
		$502 846	$502 846

LEARNING CHECK

- ☐ An income account normally contains a credit balance, so to close the account an offsetting credit is made to the Profit or Loss Summary account, and the income accounts are debited.
- ☐ Expense accounts normally have debit balances, so to close these accounts the Profit or Loss Summary account is debited for the sum of all balances, and each expense account is credited.
- ☐ If income exceeds expenses, the Profit or Loss Summary account contains a credit balance, indicating a profit. (A debit balance indicates a loss.) This balance is then transferred to the Capital account.
- ☐ A post-closing trial balance provides a simple check on the equality of debits and credits in the general ledger after the closing process is complete.
- ☐ The post-closing trial balance lists the balances in all permanent accounts.

5.5 Accrual entries in subsequent periods

LO 5 **Account for accrual items in subsequent periods using reversing entries.**

As part of the adjusting process, entries must be made to recognise expenses that have been incurred but not yet paid for or recorded, and also revenues for services performed but not yet collected or recorded. Recall that such adjustments are collectively called accruals. Adjusting entries (e) to (h) illustrated in figure 5.4 are all examples of accruals. In subsequent periods, cash received or paid for accruals must be analysed to apportion the amount involved correctly between two or more periods.

For example, during June, $7600 in salaries was paid and $3980 in unpaid salaries was accrued at the end of June [adjusting entry (e)] to be paid on 6 July. The entry below is required on 6 July, assuming a $7400 payment is made for salaries earned from 23 June to 6 July:

July 6	Salaries Payable	210	3 980	
	Salaries Expense	500	3 420	
	Cash at Bank	100		7 400
	(Payment of salaries for the period 23 June to 6 July)			

After posting this entry, the Salaries Payable and Salaries Expense accounts appear as follows:

ACCOUNT **Salaries Payable** Account No. **210**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 30	Adj. ent. (e)	3		3 890	3 890
July 6	Cash at Bank/Salaries Expense	5	3 890		—

ACCOUNT **Salaries Expense** Account No. **500**

Date	Explanation	Post Ref	Debit	Credit	Balance
2016					
June 22		2	7 600		7 600
30	Adj. ent. (3)	3	3 980		11 580
30	Clos. ent. (2)	4		11 580	—
July 6	Salaries Payable/Cash at Bank	5	3 420		3 420

On 1 July, the Salaries Payable account has a credit balance of $3980, and the Salaries Expense account has a zero balance. The zero balance results from making an entry on 30 June to close all expense accounts. Because the $7400 payment is for salaries earned during two different accounting periods, the payment must be divided into two elements. First, the $3980 debit settles the liability for the salaries earned by employees in June that were reported as an expense in June. The second debit of $3420 properly recognises as an expense that portion of the payment made for salaries incurred in July. A similar analysis is required for the other accruals when a cash payment is made or cash is received after 30 June.

Reversing entries

Reversal of accrual entries

An alternative approach to the treatment of accrual entries in subsequent periods, as discussed in the previous section, is the preparation of **reversing entries**. This involves adding another step to the accounting cycle after the closing entries have been posted to the ledger (see step 12 in figure 5.1, p. 184).

Reversing entries are dated as of the first day of the next accounting period and are so called because they reverse the effects of certain adjusting entries that were made on the last day of the preceding accounting period. Reversing entries are an accounting technique made to simplify the recording of regular transactions in the next period.

To illustrate reversing entries, we will continue with the accrued salaries adjustment for Intellect Management Services. Recall that $7600 in salaries was paid during June and that $3980 was accrued on 30 June. Salaries earned for the period 23 June to 6 July for the amount of $7400 are to be paid on 6 July. Throughout an accounting period, the normal entry to record the payment of salaries is to debit Salaries Expense and credit Cash at Bank. (Wages and salaries are exempt from GST.)

At the end of June, accrued salaries were recorded in the following ***adjusting entry*** (e):

June 30	Salaries Expense	500	3 980	
(e)	Salaries Payable	210		3 980
	(Unpaid salaries at the end of June)			

At the end of the period, the balance of $11 580 in the Salaries Expense account is closed to the Profit or Loss Summary account and the Salaries Payable balance of $3980 is reported as a current liability in the balance sheet.

If the adjusting entry is not reversed, the following entry is made on 6 July to record payment (as illustrated in the previous section):

July 6	Salaries Payable	210	3 980	
	Salaries Expense	500	3 420	
	Cash at Bank	100		7 400
	(Payment of salaries for the period 23 June to 6 July)			

Note that this entry requires two debits, a variation from the normal entry of one debit to the Salaries Expense account. Thus, a change from the normal procedures is necessary and requires that the adjusting entry or the Salaries Expense account in the general ledger for the previous period be referred to in order to divide the payment between the two accounts.

If the adjusting entry is reversed on 1 July, this will simplify the 6 July entry. The reversing entry is:

July 1	Salaries Payable	210	3 980	
	Salaries Expense	500		3 980
	(Reversing the adjusting entry to accrue unpaid salaries at the end of the previous period)			

Compare this reversing entry with the adjusting entry on 30 June. Observe that the debit and credit amounts are the same in both entries, but the account debited (Salaries Expense) in the adjusting entry is credited in the reversing entry, and the account credited (Salaries Payable) in the adjusting entry is debited in the reversing entry. In other words, the reversing entry is the opposite of the adjusting entry.

The debit in the reversing entry transfers the liability to the expense account. This produces a temporary credit balance of $3980 in the expense account since it had a zero balance before the reversing entry as a result of the closing process. The business can now make the normal entry to record the payment on 6 July as follows, without having to refer to the previous period to find any accruals of salaries:

July 6	Salaries Expense	500	7 400	
	Cash at Bank	100		7 400
	(Payment of salaries for the period 23 June to 6 July)			

The debit of $7400 is partially offset by the credit of $3980 made in the reversing entry, leaving a debit balance of $3420 in the Salaries Expense account, which is the expense for July.

As shown in figure 5.12, the two approaches produce identical results. Salaries expenses for June and July are $11 580 and $3420 respectively, and a liability for $3980 is reported in the balance sheet on 30 June.

Figure 5.12 Illustration of reversing entries

Without reversing entry				With reversing entry		
1. *Payment of salaries*						
22/6	Salaries Expense	7 600		Salaries Expense	7 600	
	Cash at Bank		7 600	Cash at Bank		7 600
2. *Adjusting entry to accrue salaries*						
30/6	Salaries Expense	3 980		Salaries Expense	3 980	
	Salaries Payable		3 980	Salaries Payable		3 980
3. *Closing entry*						
30/6	Profit or Loss Summary	11 580		Profit or Loss Summary	11 580	
	Salaries Expense		11 580	Salaries Expense		11 580
4. *Reversing entry*						
1/7	No entry is made			Salaries Payable	3 980	
				Salaries Expense		3 980
5. *Payment of salaries*						
6/7	Salaries Payable	3 980				
	Salaries Expense	3 420		Salaries Expense	7 400	
	Cash at Bank		7 400	Cash at Bank		7 400

Without reversing entry:

Salaries Payable

6/7	3 980	30/6	3 980

Salaries Expense

22/6	7 600		
	3 980	30/6	11 580
	11 580		11 580
6/7	3 420		

Cash at Bank

		22/6	7 600
		6/7	7 400

With reversing entry:

Salaries Payable

1/7	3 980	30/6	3 980

Salaries Expense

22/6	7 600		
	3 980	30/6	11 580
	11 580		11 580
6/7	7 400	1/7	3 980

Cash at Bank

		22/6	7 600
		6/7	7 400

Reversing entries are also useful in relation to ***accrued income*** (***revenue***) items which have resulted in adjusting entries. For example, a bank may have thousands of outstanding loans. At the end of the period, interest earned but not received must be accrued in order to report correctly interest revenue and interest receivable in the financial statements. If a reversing entry is not made, each time an interest payment is received in the next period an employee must refer back to the list of accruals in order to divide the amount of the payment between the reduction in the receivable balance and the interest earned in the current period.

If the adjusting entry is reversed, however, the receipt of cash for interest is simply recorded as a debit to Cash at Bank and a credit to Interest Revenue. In this case, reversing entries result in saving a great deal of time since an employee does not have to allocate each interest payment between two periods.

As an additional example of accrued revenue where a reversing entry is useful, assume that Intellect Management Services normally receives $3200 (plus GST) on the fifteenth of each month for rent receivable in arrears on business premises in a shopping centre.

The following adjusting entry needs to be made on 30 June in order to recognise rent revenue receivable for the last 2 weeks of June (no tax invoice has yet been issued):

June	30	Rent Receivable	1 600	
		Rent Revenue		1 600
		(Revenue not received at end of June)		

At the end of the period, the balance in the Rent Revenue account is closed to the Profit or Loss Summary, and Rent Receivable appears as an asset in the balance sheet.

If the adjusting entry is not reversed, the journal entry below needs to be made on 15 July to record receipt of cash.

July	15	Cash at Bank	3 520	
		Rent Receivable		1 600
		Rent Revenue		1 600
		GST Payable		320
		(Receipt of rent in arrears for the month from 16 June to 15 July)		

To avoid making a compound entry on 15 July and the need to refer back to the adjusting entry made on 30 June, a reversing entry may be made on 1 July to reverse the effects of the adjusting entry, as follows:

July	1	Rent Revenue	1 600	
		Rent Receivable		1 600
		(Reversing the adjusting entry)		

By making the reversing entry, the entry to record receipt of cash on 15 July is simplified and the normal entry is made as follows:

July	15	Cash at Bank	3 520	
		Rent Revenue		3 200
		GST Payable		320
		(Receipt of rent in arrears for the month from 16 June to 15 July)		

As with the Salaries Expense accrual illustrated in figure 5.12, the results for this Rent Revenue accrual are the same under both approaches. A reversing entry simplifies the entry made on 15 July to record the cash receipt, and avoids any necessity on 15 July to refer to the adjusting entries made at the end of the previous accounting period.

A thorough knowledge of reversing entries is not essential to the understanding of accounting concepts and procedures. It should be emphasised that they are optional and are made to facilitate the recording of routine transactions in future periods. Furthermore, only certain adjusting entries should be reversed if it is beneficial to do so. ***A general rule is that adjusting entries for accruals can be reversed***, i.e. when the cash flow has not yet occurred.

Reversal of deferral entries

In relation to deferrals, adjusting entries are made for prepaid expenses and unearned or precollected revenue, as illustrated in figure 4.2 (p. 134). The need for reversing entries to reverse the effects of any adjusting entries depends on whether the initial recording of a transaction occurs in a permanent account, i.e. asset or liability. To illustrate, consider the purchase on 3 June of a 24-month fire and business liability insurance policy for $1920 plus $192 GST by Intellect Management Services. The entry to record this purchase was made to a permanent asset account, Prepaid Insurance, as follows:

June	3	Prepaid Insurance	110	1 920	
		GST Receivable	120	192	
		Cash at Bank	100		2 112
		(Purchase of a 24-month fire and business liability insurance policy)			

The adjusting entry (a) at 30 June for the expiration of 1 month's insurance was recorded as:

June	30	Insurance Expense	521	80	
(a)		Prepaid Insurance	110		80
		(Adjusting entry to record expiration of 1 month's insurance)			

In this circumstance, where the adjusting entry is merely recording the gradual expiration of the asset as time goes by, there is no need for any reversal of the adjusting entry in the new accounting period in order to facilitate the accounting procedure. All that needs to be done is to gradually reduce the value of the asset at the end of each accounting period by way of adjusting entries. Similarly, there is no need for reversing entries in relation to adjustments for supplies used or for depreciation expense, where the initial entry for purchase of the asset is placed in an asset account.

However, some entities, on initial purchase of an asset, make a debit entry to an expense account. For example, Intellect Management Services could have recorded the purchase of its insurance policy in the following entry, as previously discussed in chapter 4 (p. 135):

June	3	Insurance Expense	521	1 920	
		GST Receivable	120	192	
		Cash at Bank	100		2 112
		(Purchase of a 24-month fire and business liability insurance policy)			

If this initial entry is made, the adjusting entry (aa) at 30 June to record the portion of insurance premium unexpired is as follows:

June	30	Prepaid Insurance	110	1 840	
(aa)		Insurance Expense	521		1 840
		(Adjusting entry to record portion of insurance policy unexpired)			

The adjusting entry in this case needs to recognise the existence of the Prepaid Insurance asset, and leaves only $80 in the expense account, as in the first case (see the previous page). The entity then has two options at the beginning of the new period.

1. Leave the amount of $1840 in the Prepaid Insurance account for the coming period and make adjusting entries at the end to write down the value of the asset, in the same way that adjusting entry (a) is made.
2. Make a reversing entry on the first day of the period to reverse adjusting entry (aa). In other words, the Insurance Expense account is reopened on the first day of the new period, and a further adjusting entry is necessary at the end of the period only if part of the Insurance Expense balance is still unexpired.

If option 2 is selected, then reversing entries are to be made also for all deferrals where the initial acquisition of the asset is recorded in an expense account. This particular procedure is not favoured by the authors, who believe that all assets should initially be recorded in asset accounts, as in the first case mentioned previously. If this procedure is followed, reversing entries for deferrals are unnecessary.

Applying similar reasoning, whenever precollected revenue is recorded in a liability account, e.g. subscriptions in advance, there is no need to apply reversing entries to any adjusting entries which are gradually reducing the liability over time. Nevertheless, if an entity initially records precollected revenue in an income (revenue) account, the entity may choose to use reversing entries for any adjusting entry made at the end of the period. As previously indicated, the authors favour the initial recognition of precollected revenue in a permanent account (liability), so there is no need for reversing entries in this situation.

In computerised accounting systems, reversing entries can be programmed to be done automatically on the first day of the new accounting period.

BUSINESS KNOWLEDGE

Accountants — More than bean counters

Accountants (commonly known as bean counters by some people) keep companies and businesses running efficiently by keeping records accurately and taxes paid properly and on time. These services include public, management and government accounting, as well as internal auditing.

The accounting profession is associated with high salaries and an array of career opportunities, with assurance work, management consulting, corporate finance, IT consulting, tax planning, human resources and insolvency.

Accounting software packages have greatly reduced the amount of tedious manual work associated with recordkeeping while laptop computers enable them to be more mobile.

Public accountants perform a broad range of accounting, auditing, tax, and consulting activities for their clients whether corporations, governments, non-profit organisations or individuals.

Consultants offer advice in areas such as compensation, employee health care benefits, data processing systems and safeguarding assets.

Forensic accountants tend to investigate bankruptcies and complex financial transactions.

Public accountants, many of whom are Certified Public Accountants (CPAs), generally have their own businesses or work for public accounting firms.

Within accounting departments, they may work in areas including financial analysis, planning and budgeting, and cost accounting.

Highly specialised auditors include electronic data processing, environmental, engineering, legal, insurance premium, bank and health care auditors.

Most accountant and internal auditor positions require at least a bachelor’s degree in accounting or a related field. Jobseekers who obtain professional recognition through certification or licensure e.g. CPAs, a master’s degree, proficiency in accounting and auditing computer software or specialised expertise will have an advantage in the job market.

Most accountants and auditors generally work a standard 40-hour week but many work longer hours, particularly if they are self-employed and have numerous clients. Tax specialists often work long hours during the tax season.

In general, there is a large degree of mobility among accountants so competition will remain keen for the most prestigious jobs in major firms.

Source: Excerpts from ***Illawarra Mercury***, ‘Accountants — More than bean counters’, www.illawarramercury.com.au.

LEARNING CHECK

- ☐ Cash received or paid for accruals must be analysed in subsequent periods to apportion the amount correctly between two or more periods.
- ☐ Reversing entries are made on the first day of the next accounting period to reverse the effects of certain adjusting entries made on the last day of the previous accounting period.
- ☐ A general rule is that adjusting entries for accruals are reversed. Deferrals also may be reversed if the initial cash receipt (payment) has been recorded as an item of income (expense), rather than as a liability (asset).

5.6 Accounting procedures applicable to a partnership or a company

LO 6 Prepare the equity accounts for a partnership and for a company.

In the preceding illustration, Intellect Management Services was owned by one person, who had elected to operate the business as a single proprietorship or sole trader. Although sole traders are the most numerous form of business organisation in Australia, the majority of business activity is conducted by the corporate form of business organisation. A company is a business entity incorporated under the ***Corporations Act 2001*** throughout Australia. Another common form of business organisation is the partnership, which is a business owned by two or more people acting as partners. Accounting and reporting for partnerships and companies are similar in most respects to accounting and reporting for sole traders. The financial statements are essentially the same

for all three forms of business organisation except for transactions that directly affect the equity accounts. These differences are discussed briefly below. Special accounting problems associated with partnerships and companies are discussed more fully in later chapters.

Accounting for a partnership

In accounting for a partnership, separate Capital and Drawings accounts are maintained for each partner as a minimum. Any investment by a partner is credited to his or her Capital account, and a withdrawal of cash or other assets from the partnership is debited to his or her Drawings account. Any salary paid to a partner is normally regarded as drawings by that partner.

At the end of the accounting period, the Profit or Loss Summary account is closed by the balance, i.e. profit (loss), being allocated to each partner's Capital account in accordance with the partners' profit and loss sharing agreement. Each Drawings account is also closed to the appropriate Capital accounts so that the total of each partner's equity at the end of the period represents his or her capital contribution plus share of the profits as retained by him or her in the business.

Accounting for a company

The owners of a company are called shareholders because their ownership interests are represented by shares held in the company. The equity section of a company balance sheet (statement of financial position) is separated into two main account categories: (1) **share capital**, which represents the amount of assets invested in the company by the shareholders, and (2) **retained earnings** (or **accumulated losses**), which reflect the accumulated profits (or losses) earned by the company and retained in the business.

The investment of assets in a company is recorded by debits to the appropriate asset accounts and a credit to an account called the Share Capital account. When an investment is made in the company, the investors are given shares in the company as evidence of their ownership. For example, assume that Intellect Management Services was organised on 1 January 2016 as a company and initially issued 240 000 shares for $1 each. The simplified entry to record the issue is as follows:

2016				
Jan.	1	Cash at Bank	240 000	
		Share Capital		240 000
		(Issue of 120 000 shares for $1 each in cash)		

Just as the owner of a single proprietorship may periodically withdraw cash from the business in anticipation of profits, cash distributions called **dividends** may be made to the owners of a company. However, before a dividend can be paid, it must be 'declared'. Assume that on 1 December, Intellect Management Services Ltd declared a cash dividend out of retained earnings of 10c per share on the 240 000 shares issued. The dividend is to be paid on 20 December. Entries to record the declaration and payment are:

2016			
Dec. 1	Retained Earnings	24 000	
	Dividend Payable [liability]		24 000
	(Declared a dividend of 10c per share on the 240 000 shares issued)		
20	Dividend Payable	24 000	
	Cash at Bank		24 000
	(Payment of the dividend liability)		

Dividends are considered a distribution or withdrawal of profits by the owners and are not a cost incurred for the purpose of producing income. Note that, because the dividend declared is debited directly to the Retained Earnings account, no closing entry is necessary (unlike the Drawings account in a sole trader or partnership). Further discussion of accounting for dividends is provided in a later chapter.

If profit for the year ending 31 December 2016 is $50 000, the Profit or Loss Summary account has a credit balance and is closed by the following closing entry:

2016			
Dec. 31	Profit or Loss Summary	50 000	
	Retained Earnings		50 000
	(Transfer of profits)		

At the end of the period, a company often prepares a statement of changes in equity similar to the following:

INTELLECT MANAGEMENT SERVICES LTD
Statement of Changes in Equity
for the year ended 31 December 2016

Share capital, 1 January 2016	$240 000
Share capital, 31 December 2016	240 000
Retained earnings, 1 January 2016	—
Add: Profit for the year	50 000
	50 000
Less: Cash dividends for the year	24 000
Retained earnings, 31 December 2016	$26 000

The Retained Earnings account for the year is shown as follows (in T-account format):

Retained Earnings

2016			2016		
1/12	Dividend Payable	24 000	31/12	Profit or Loss Summary	50 000
31/12	Balance c/d	26 000			
		50 000			50 000
			2017		
			1/1	Balance b/d	26 000

Based on the above entries, the equity section of the balance sheet appears as follows:

Balance Sheet (extract)
as at 31 December 2016

EQUITY	$240 000
Share capital, (240 000 shares issued for $1)	26 000
Retained earnings	$266 000
Total equity	

One important difference between the three forms of business organisation is the way income tax is determined. Although all three forms are recognised as separate business entities for accounting purposes, sole traders and partnerships are non-taxpaying entities. Sole traders or partners must include their share of business profit or loss in their own personal tax returns. Thus, income tax expense will not appear in the income statements for a sole trader or a partnership.

Companies, however, are separate taxable entities that must file tax returns and pay tax as assessed by the Australian Taxation Office (ATO). Therefore, in its financial statements, a company must show the amount of income tax expense incurred for the period and any unpaid amount

of the tax as a liability. The amount of income tax to be paid each period is determined in accordance with the Income Tax Act. In this book, we use only simplified tax calculations, being the company's profit multiplied by the income tax rate.

LEARNING CHECK

- ☐ In accounting for a partnership, separate Capital and Drawings accounts are maintained for each partner. At the end of the accounting period, the balance in the Profit or Loss Summary account (i.e. profit) is allocated to each partner's Capital account. The Drawings accounts are also closed to the appropriate Capital accounts.
- ☐ In a company, there are two types of equity: share capital and retained earnings. Cash ***dividends*** are paid to shareholders out of retained earnings.
- ☐ Unlike sole trader and partnership businesses, companies are separate taxable entities and must file tax returns and pay tax.

KEY TERMS

Accumulated losses, p. 211
Closing entries, p. 185
Dividends, p. 211
Interim statements, p. 186
Post-closing trial balance, p. 204
Retained earnings, p. 211
Reversing entries, p. 206
Share capital, p. 211

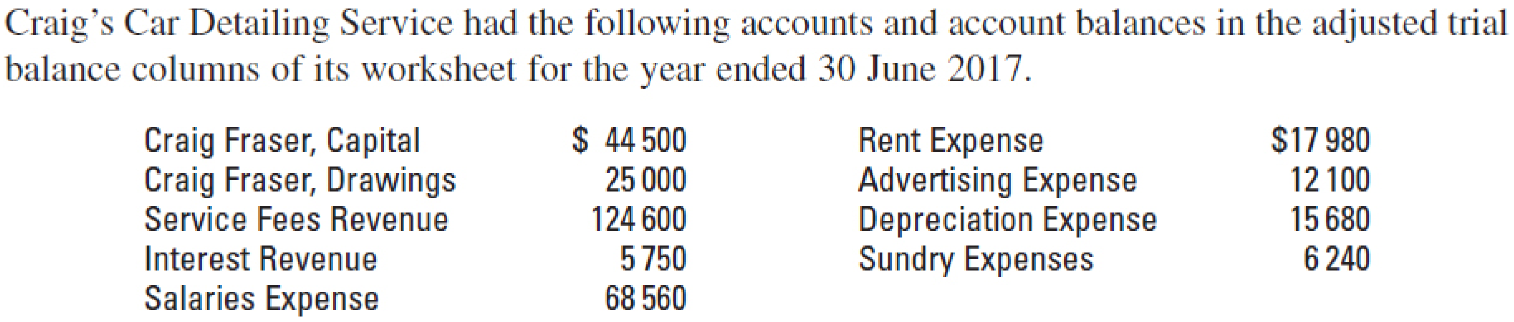
DISCUSSION QUESTIONS

1. In figure 5.1 (p. 184), the accounting cycle is illustrated. Explain the purpose and importance of each step in the cycle.
2. Compare and contrast the purposes of adjusting entries, closing entries and reversing entries.
3. For a sole trader, which accounts generally are involved in closing entries? Why are these accounts closed?
4. So far, we have heard of the existence of three trial balances — the unadjusted trial balance, the adjusted trial balance and the post-closing trial balance. Explain the purpose of each, and indicate the types of account balances that are contained in each.

5. You have been approached by a neighbour who is studying first-year accounting at university. He is very worried about reversing entries and can see no purpose for them. He also finds it very difficult to decide when a reversing entry would be helpful and when it would not. Discuss the major points to include in a suitable tutorial to overcome his concerns.
6. At the end of the preceding period, a company recorded accrued salaries payable of $3500. On 2 July, the second day of the new period, the company debited Salaries Expense and credited Cash at Bank for $4000.
   - **(a)** If a reversing entry had not been made on 1 July, would the financial statements be in error for the month of July? Explain.
   - **(b)** What entry should have been made on 2 July given that a reversing entry was not made?
   - **(c)** If the company made reversing entries, what reversing entry should have been made on 1 July and what entry would then be made on 2 July?
7. The accountant in Bede Cameron's business has never worried about preparing reversing entries. However, a newly employed trainee accountant has strongly suggested to Bede that reversing entries are quite useful. Show, by way of a numerical example involving interest payable, how reversing entries can be used in the business accounts and discuss the benefits that reversing entries can provide.
8. Different equity accounts are used depending on the type of organisation. Illustrate and explain.
9. Explain the difference between the payment of cash dividends by a company and the withdrawal of cash by a sole trader. What is the effect of each on assets? on equity? on profit?
10. 'When preparing interim financial statements, certain steps in the accounting cycle may be omitted.' Discuss.

EXERCISES

Exercise 5.1 CLOSING ENTRIES LO 4



Craig's Car Detailing Service had the following accounts and account balances in the adjusted trial balance columns of its worksheet for the year ended 30 June 2017.

Craig Fraser, Capital	$ 44 500	Rent Expense	$17 980
Craig Fraser, Drawings	25 000	Advertising Expense	12 100
Service Fees Revenue	124 600	Depreciation Expense	15 680
Interest Revenue	5 750	Sundry Expenses	6 240
Salaries Expense	68 560		

Required

Record the required closing entries for Craig's Car Detailing Service.

Exercise 5.2 CLOSING ENTRIES AND EQUITY LO 4

The accounts below are taken from the ledger of Bartel Music Consulting on 30 June 2016, the end of the current financial year.

Required

A. Record the closing entries that affected the accounts.
B. Prepare a statement of changes in equity as at 30 June.

G. Bartel, Capital

30/6	21 910	1/7	12 070
		30/6	16 380

G. Bartel, Drawings

15/8	6 480	30/6	21 910
29/10	4 220		
18/11	3 920		
14/1	7 290		

Profit or Loss Summary

30/6	39 470	30/6	55 850
30/6	16 380		

Exercise 5.3 COMPLETION OF WORKSHEET, PREPARATION OF FINANCIAL STATEMENTS, AND CLOSING ENTRIES

LO 3, 4

The following unadjusted trial balance was taken from the ledger of Miranda's Management Services on 30 June 2016.

Account	Debit	Credit
Cash at bank	$ 80 000	
Accounts receivable	74 000	
Prepaid insurance	24 000	
Equipment	230 000	
Accumulated depreciation – equipment		$ 60 000
Accounts payable		64 000
Miranda Pike, Capital		204 000
Miranda Pike, Drawings	50 000	
Service revenue		340 000
Wages expense	130 000	
Electricity expense	54 000	
Sundry expense	26 000	
	$668 000	$668 000

Required

A. Prepare a 10-column worksheet using the following additional information on 30 June 2016:
   1. Accrued wages, $18 000.
   2. Expired insurance, $16 000.
   3. Depreciation on equipment, $60 000.

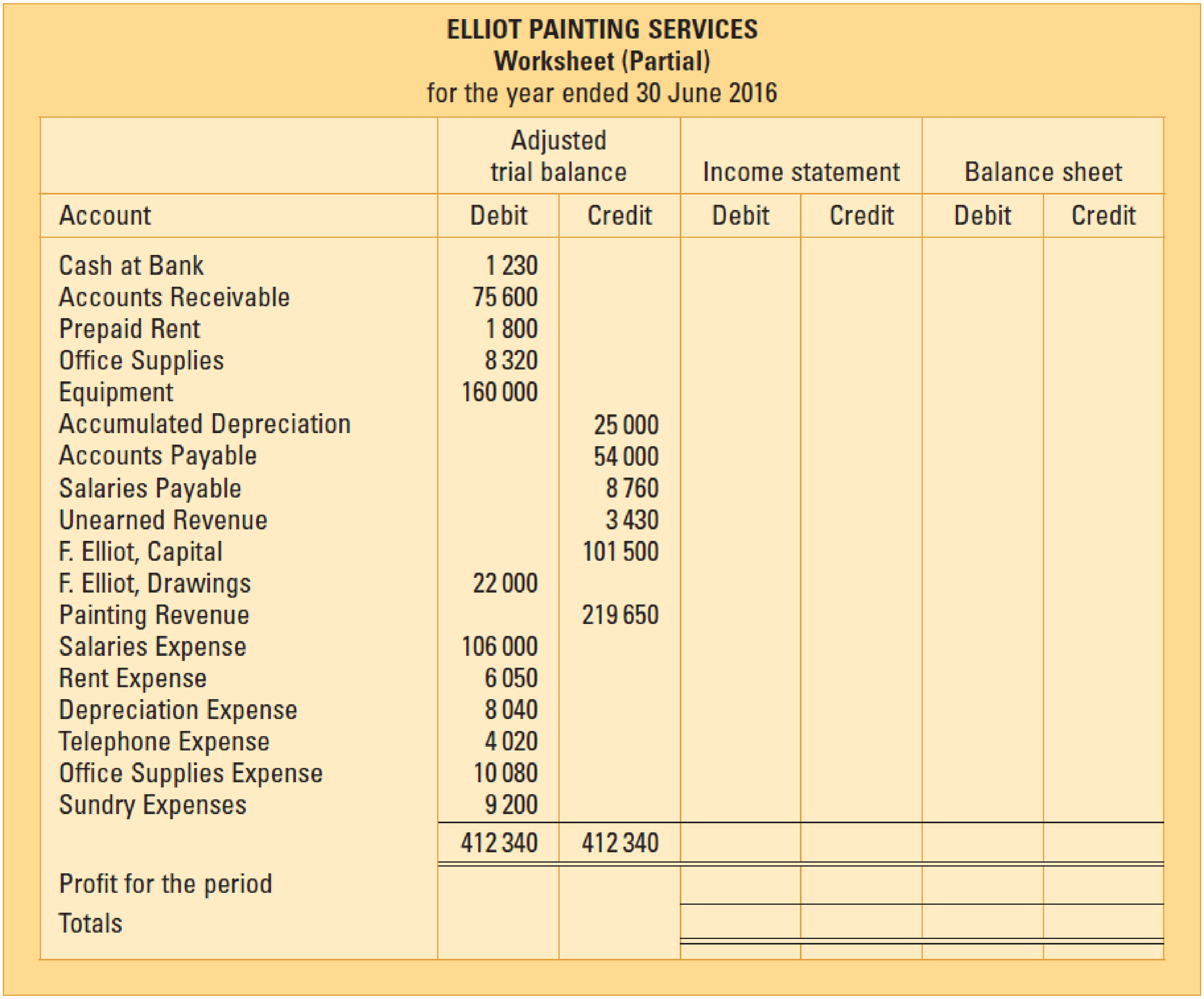
B. Prepare an income statement, a statement of changes in equity and a balance sheet.

C. Record the adjusting and closing entries in the general journal.

Exercise 5.4 WORKSHEET AND CLOSING ENTRIES

LO 3, 4

The adjusted trial balance columns in the worksheet of Elliot Painting Services are as follows.



ELLIOT PAINTING SERVICES
Worksheet (Partial)
for the year ended 30 June 2016

	Adjusted trial balance		Income statement		Balance sheet	
Account	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	1 230					
Accounts Receivable	75 600					
Prepaid Rent	1 800					
Office Supplies	8 320					
Equipment	160 000					
Accumulated Depreciation		25 000				
Accounts Payable		54 000				
Salaries Payable		8 760				
Unearned Revenue		3 430				
F. Elliot, Capital		101 500				
F. Elliot, Drawings	22 000					
Painting Revenue		219 650				
Salaries Expense	106 000					
Rent Expense	6 050					
Depreciation Expense	8 040					
Telephone Expense	4 020					
Office Supplies Expense	10 080					
Sundry Expenses	9 200					
	412 340	412 340				
Profit for the period						
Totals						

Required

A. Complete the worksheet.

B. Prepare the closing entries necessary at 30 June 2016, assuming that this date is the end of the entity's accounting period.

Exercise 5.5 CLOSING ENTRIES AND POST-CLOSING TRIAL BALANCE **LO 4**

Michael Rau founded Michael's Fishing Supplies on 1 July 2016. The adjusted trial balance at 30 June 2017 (the end of the financial year) is shown on page 216.

Required

A. Prepare closing entries to be made on 30 June 2017.

B. Prepare a post-closing trial balance as at 30 June 2017.

MICHAEL'S FISHING SUPPLIES
Adjusted Trial Balance
as at 30 June 2017

Account	Debit	Credit

Cash at bank	$ 12 400	
Accounts receivable	25 200	
GST receivable	2 160	
Fishing supplies	6 000	
Prepaid insurance	3 000	
Boat	36 000	
Accumulated depreciation – boat		$ 18 000
Accounts payable		6 000
Salaries payable		2 040
Interest payable		3 120
Mortgage payable		7 800
Unearned revenue		6 720
GST payable		3 600
Michael Rau, Capital		18 000
Michael Rau, Drawings	14 400	
Sales		60 640
Salaries expense	14 040	
Insurance expense	1 080	
Interest expense	600	
Depreciation expense	4 200	
Fishing supplies expense	2 040	
Rent expense	4 800	
	$125 920	$125 920

Exercise 5.6 CLOSING ENTRIES FOR A COMPANY

LO 4, 6

Paradise Gardens Hire Ltd's income statement is presented below. During the year, directors declared and paid a dividend of $16 000.

PARADISE GARDENS HIRE LTD
Income Statement
for the year ended 30 June 2016

INCOME		
Revenue:		
Hire fees – heavy equipment		$ 80 670
Hire fees – light equipment		64 470
		145 140
EXPENSES		
Salaries expense	$79 300	
Depreciation expense	21 580	
Insurance expense	6 770	
Repairs and maintenance expense	4 090	
Supplies expense	1 820	
Sundry expenses	1 860	
		115 420
PROFIT		$ 29 720

Required

Prepare the necessary general journal entries to close the accounts of the company.

Exercise 5.7 CLOSING ACCOUNTS AND PREPARING THE RETAINED EARNINGS ACCOUNT FOR A COMPANY **LO 4, 8**

On 1 January 2016, the equity of Deadwood Pty Ltd consisted of share capital of $800 000 and retained earnings of $260 000. During the period, the company declared and paid a cash dividend of $70 000. The general ledger contains only two income statement accounts — Revenues and Expenses. On 31 December 2016, the balance in the Revenues account was $925 000 and the balance in the Expenses account was $862 000.

Required

A. Prepare closing entries.
B. Show the Retained Earnings account at the end of 2016.
C. Calculate the total equity of the company as it would appear in the balance sheet at the end of 2016.

Exercise 5.8 REVERSING ENTRIES — ACCRUED EXPENSE **LO 5**

On 30 June 2017, the accountant for Nigel the Maintenance Man calculated that 1 month's interest of $420 had accrued on a bank loan. An interest payment of $1600 was made on 30 September 2017.

Required

A. Give the adjusting entry needed on 30 June 2017.
B. Give the closing entry.
C. Give the reversing entry that could be made on 1 July 2017 and the subsequent entry to record the payment of 30 September 2017.
D. Assuming that no reversing entry was made, give the entry to record the interest payment on 30 September 2017.

Exercise 5.9 ADJUSTING ENTRIES AND REVERSING ENTRIES **LO 5**

On 30 June 2017, the adjusted trial balance of Outback Car Rentals showed the following selected balances:

Rental revenue	$740 000
Interest expense	17 000
Rentals receivable	42 000
Interest payable	8 200

Both the Rentals Receivable and Interest Payable accounts had been recorded as a result of adjusting entries made on 30 June.

Required

A. Prepare the adjusting entries that would have been recorded on 30 June for both items.
B. Prepare any necessary reversing entries that would be made on 1 July.
C. Prepare the entries on 10 July assuming that cash of $36 000 had been received on the out-standing rentals and $9000 was paid in interest.
D. Assuming that any reversing entries in requirement B were not made, what entries would be made on 10 July for the cash receipt and cash payment?

Exercise 5.10 WORKSHEET, INCOME STATEMENT AND CLOSING ENTRIES **LO 3, 4**

The account balances taken from the trial balance and adjusted trial balance columns of the worksheet of Tran's Transcription Service for the year ended 30 June 2017, the first year of operations, are shown below.

Required

A. Reconstruct the 10-column worksheet for the year.
B. Prepare the income statement for Tran's Transcription Service for the year ended 30 June 2017.
C. Prepare the closing entries required on 30 June 2017.

Account	**Unadjusted trial balance**	**Adjusted trial balance**

Cash at bank	$ 7 800	$ 7 800
Accounts receivable	12 200	12 200
Office supplies	6 400	1 600
Stationery supplies	5 600	2 200
Prepaid insurance	2 160	1 260
Prepaid rent	14 400	4 800
Equipment	96 800	96 800
Accounts payable	24 500	24 500
T. Skrybe, Capital	92 610	92 610
T. Skrybe, Drawings	16 800	16 800
Transcription revenue	92 650	92 650
Wages expense	36 400	36 820
General expense	11 200	11 200
Office supplies expense	—	4 800
Stationery supplies expense	—	3 400
Insurance expense	—	900
Rent expense	—	9 600
Depreciation expense – equipment	—	9 800
Accumulated depreciation – equipment	—	9 800
Wages payable	—	420

Exercise 5.11 CLOSING ENTRIES, INCOME STATEMENT AND STATEMENT OF CHANGES IN EQUITY LO 4

The accountant of the marketing firm, S. Preston, has posted adjusting entries (1) to (5) to the ledger accounts at 30 June 2016. All the income, expense and equity accounts of the entity are listed here in T-account form.

Accounts Receivable

31 500	
(5) 20 000	

Supplies

33 500	(1) 26 000

Salaries Payable

	(4) 4 400

S. Preston, Capital

	67 500

S. Preston, Drawings

36 000	

Service Revenue

	166 500
	(5) 20 000

Salaries Expense

78 000	
(4) 4 400	

Supplies Expense

(1) 26 000	

Depr. Expense – Buildings

(3) 24 000	

Accum. Depr. – Buildings

	96 000
	(3) 24 000

Accum. Depr. – Furniture

	6 500
	(2) 5 600

Depr. Expense – Furniture

(2) 5 600	

Required

A. Prepare the closing entries of the marketing firm at 30 June 2016.
B. Prepare the income statement and the statement of changes in equity for the year ended 30 June 2016.

Exercise 5.12 ADJUSTING AND REVERSING ENTRIES, JUSTIFICATION LO 5

The management consulting firm of the Zimbardi Sisters supplied the following information as at 30 June 2016, the end of the financial year.

1. Interest earned but not received totals $2600.
2. The June electricity account for $1142 has not been paid or recorded.

3. Consulting fees owing to the business and unrecorded as at 30 June 2016 amounted to $8620.
4. The Zimbardi sisters received $6300 in rent revenue on 1 May for the 3-month period beginning on that date. The transaction was recorded by a credit to Unearned Rent Revenue.
5. Prepaid Insurance was debited for $5040 on 25 March to record the cost of a 12-month policy beginning on 1 April.

Required

A. Prepare an adjusting entry for each item as at 30 June 2016.
B. Prepare reversing entries where appropriate. Justify why you have/have not prepared reversing entries for each adjustment.

Exercise 5.13 RECORDING CAPITAL TRANSACTIONS OF A COMPANY **LO 6**

Prepare the general journal entries that are needed to record the transactions of Transformer Ltd.

1. Issued 100 000 shares for $200 000.
2. The board of directors declared a cash dividend of 50c per share.
3. The cash dividend declared in (2) above was paid.
4. Close the Profit or Loss Summary account which has a credit balance of $23 840.

Exercise 5.14 REVERSING ENTRIES — ACCRUED REVENUE **GST** **LO**

Clean Sweep Services runs a professional office cleaning service. Its clients are charged $1200 a month plus $120 GST for the service and tax invoices are prepared four times a year on 31 January, 30 April, 31 July and 31 October. Quarterly payments are due by the fifteenth of the month following the end of a quarter. The balance in the Cleaning Fees Revenue account was $264 000 on 31 December, the end of the period. Service fees for November and December not yet recorded were $44 000.

Required

A. Prepare the adjusting entry in the general journal to record the fees revenue.
B. Assuming that reversing entries are not made, record the receipt of a $3960 quarterly payment from a client on 12 February and the receipt of $2640 on 13 February from a new client who had contracted for the service to start on 1 December.
C. Assuming that reversing entries are made to facilitate the record-keeping process, prepare the appropriate reversing entry, if any, and the receipt of cash on 12 and 13 February.

Exercise 5.15 REVERSING ENTRIES — UNEARNED REVENUE **LO 5**

During 2016, Mount Remarkable Golf Club received $180 000 for membership fees. The accountant credits Unearned Membership Fees, a liability account, for the full amount when cash is received. At 30 June 2016, it is determined that $36 420 of the membership fees are fees for the following financial year. Ignore GST.

Required

A. What amount should be reported in the 2016 income statement for membership fees?
B. What amount should be reported in the 30 June 2016 balance sheet for unearned membership fees?
C. Prepare the adjusting entry needed at 30 June 2016.
D. What reversing entry, if any, would you make on 1 July 2016?
E. The record keeper could have recorded the receipt of cash initially in a revenue account. Prepare the adjusting entry, assuming that the Membership Fees Revenue account contains a credit balance of $180 000 at 30 June 2016.
F. Compare the balances in the Unearned Membership Fees account and the Membership Fees Revenue account derived in requirement E with those calculated in requirements A and B.
G. What reversing entry, if any, would you make on 1 July 2016 to reverse the adjusting entry made in requirement E? Explain your answer.

PROBLEMS

Basic
Moderate
Challenging

Problem 5.1 WORKSHEET, FINANCIAL STATEMENTS AND CLOSING ENTRIES **LO 1, 4**

The unadjusted trial balance of Secretarial Services is as follows:

SECRETARIAL SERVICES
Unadjusted Trial Balance
as at 31 December 2017

Account	Debit	Credit
Account	$ 6 200	
Cash at bank	7 260	
Office supplies	1 725	
Prepaid insurance	82 800	
Office equipment		$ 14 600
Accumulated depreciation – office equipment		50 000
Bank loan payable (non-current)		15 540
V. Prim, Capital	27 000	
V. Prim, Drawings		
Secretarial services revenue		126 500
Salaries expense	63 250	
Advertising expense	2 250	
Repairs expense	1 260	
Sundry expense	7 520	
Electricity expense	3 405	
Telephone expense	2 620	
Interest on bank loan expense	1 350	
	$206 640	$206 640

The following additional information should be taken into account:

1. Office supplies unused at 31 December 2017 amount to $2320.
2. Unexpired insurance at 31 December 2017 is $540.
3. Office equipment is to be depreciated by $7400.
4. Salaries accrued but unrecorded on 31 December, $260.
5. Electricity accrued and unpaid, $830.
6. On 31 December, telephone charges of $425 have accrued but are unrecorded and unpaid.
7. Interest accrued on bank loan at 31 December was $250.

Required

A. Prepare adjusting and closing entries
B. Prepare an income statement for the year ended 31 December 2017 and a balance sheet as at 31 December 2017. (A worksheet may be prepared to assist but it is not necessary.)

Problem 5.2 WORKSHEET, FINANCIAL STATEMENTS AND CLOSING ENTRIES **GST 4** **LO 1, 3,**

Gemma Jones owns Australia Works, which provides employment placement services. The unadjusted trial balance on 30 June 2016 below was prepared by her accountant.

The following additional information is available at 30 June:

1. Unused supplies on hand on 30 June totalled $180.
2. The Unearned Fees account includes $825 received for fees earned during June.

3. Estimated depreciation on the office equipment is $3500.
4. Advertising costing $1350 was consumed during the year.

AUSTRALIA WORKS
Unadjusted Trial Balance
as at 30 June 2016

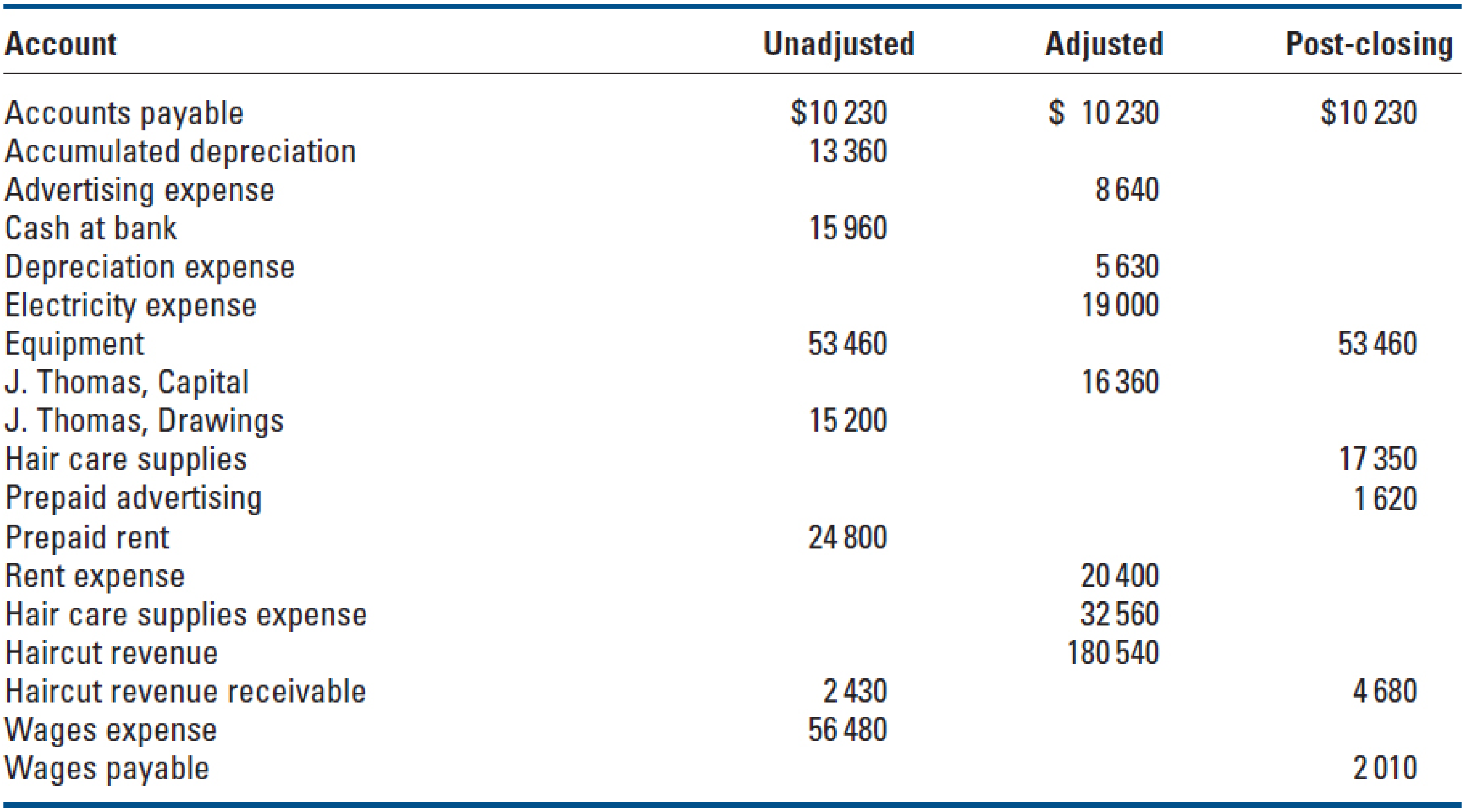
Account	Debit	Credit
Cash at bank	$ 4 560	
Accounts receivable	14 230	
GST receivable	1 470	
Prepaid advertising	2 120	
Office supplies	750	
Office equipment	18 620	
Accumulated depreciation – office equipment		$ 2 280
Accounts payable		11 670
Unearned fees		2 580
GST payable		3 220
G. Jones, Capital		14 240
G. Jones, Drawings	16 000	
Placement fees revenue		100 620
Rent expense		
Salaries expense	12 240	
Telephone expense	62 500	
	2 120	
	$134 610	$134 610

Required

A. Prepare a 10-column worksheet for the year ended 30 June 2016.
B. Prepare an income statement, a statement of changes in equity and a balance sheet.
C. Journalise the closing entries.

Problem 5.3 WORKSHEET ADJUSTING ENTRIES AND FINANCIAL STATEMENTS **GST** **LO 1, 3, 4**

Jack Thomas owns a men’s hairdressing salon which conducts business in a large shopping complex in Melbourne. Presented below are selected (incomplete) data from the three trial balances at the end of the current year, 30 June 2017. Accounts are arranged alphabetically.



Account	Unadjusted	Adjusted	Post-closing
Accounts payable	$10 230	$ 10 230	$10 230
Accumulated depreciation	13 360		
Advertising expense		8 640	
Cash at bank	15 960		
Depreciation expense		5 630	
Electricity expense		19 000	
Equipment	53 460		53 460
J. Thomas, Capital		16 360	
J. Thomas, Drawings	15 200		
Hair care supplies			17 350
Prepaid advertising			1 620
Prepaid rent	24 800		
Rent expense		20 400	
Hair care supplies expense		32 560	
Haircut revenue		180 540	
Haircut revenue receivable	2 430		4 680
Wages expense	56 480		
Wages payable			2 010

During the period, adjustments were made to record haircut revenue receivable, hair care supplies expense, rent expense, advertising expense, depreciation expense and wages accrued.

Required

A. Prepare a worksheet in correct financial statement order, filling in the blank spaces where necessary. Note that the column totals for the trial balances are:

Unadjusted	$244 260
Adjusted	$254 150
Post-closing	$112 670

No additional accounts are required.

B. Prepare the income statement and balance sheet as at the date of the worksheet.

Problem 5.4 WORKSHEET, FINANCIAL STATEMENTS AND CLOSING ENTRIES

GST 4 **LO 1, 3,**

The ledger of Catherine Delaney, Financial Consultant, contains the following account balances on 30 June 2017.

Account	Debit	Credit
Cash at Bank	$5 200	
Accounts Receivable	9 260	
GST Receivable	920	
Office Supplies	1 140	
Land	60 000	
Building	152 000	
Accumulated Depreciation – Building		$64 000
Office Equipment	23 400	
Accumulated Depreciation – Office Equipment		6 420

Accounts Payable		7 960
Unearned Consulting Fees		1 560
GST Payable		2 000
Mortgage Payable		88 600
C. Delaney, Capital		71 490
C. Delaney, Drawings	52 780	
Consulting Fees Revenue		156 860
Insurance Expense	1 660	
Salaries Expense	87 940	
Electricity Expense	760	
Interest Expense	2 090	
Telecommunications Expense	1 740	
	$398 890	$398 890

The following additional account titles are included in the chart of accounts:

Prepaid Insurance
Telecommunications Expense Payable
Office Supplies Expense
Depreciation Expense – Buildings
Depreciation Expense – Office Equipment
Interest Payable
Salaries Payable

The following information is also available:

1. A physical count of office supplies reveals that supplies totalling $420 are on hand at 30 June.
2. The balance in the Unearned Consulting Fees account includes $1200 earned for services rendered in the last week of June.
3. Estimated depreciation on the office equipment is $2140. Depreciation on the building is $8760.
4. A 12-month insurance policy was purchased on 1 April for $780 plus GST.
5. The June monthly mortgage payment of $900 has not been paid or recorded. In each payment, $220 is attributable to interest.

6. The June telecommunications costs for $320 are unrecorded. No tax invoice has been received.
7. Salaries of $980 were owing to employees at 30 June 2017.

Required

A. Prepare a 10-column worksheet for the year ended 30 June 2017.
B. Prepare the income statement, balance sheet and statement of changes in equity.
C. Journalise the closing entries.

Problem 5.5 PREPARATION OF WORKSHEET, FINANCIAL STATEMENTS AND CLOSING ENTRIES

LO 1, 3, 4

The ledger of P. Oodle, Veterinary Surgeon, contains the accounts and account balances shown below on 30 June 2016:

Account	Debit	Credit
Cash at Bank	$ 12 600	
Accounts Receivable	11 800	
Prepaid Insurance	1 800	
Land	180 200	
Building	196 000	
Accumulated Depreciation – Building		$ 86 900
Equipment	32 300	
Accumulated Depreciation – Equipment		8 800

Accounts Payable		16 400
Mortgage Payable		64 000
P. Oodle, Capital		236 950
P. Oodle, Drawings	86 500	
Fees Earned		262 430
Rent Revenue		14 400
Salaries Expense	124 600	
Telephone Expense	4 520	
Interest Expense	3 080	
Insurance Expense	36 480	
	$689 880	$689 880

The following account titles are included in the chart of accounts:

Interest Payable
Salaries Payable
Rates Payable
Unearned Fees
Depreciation Expense – Building
Depreciation Expense – Equipment
Rates Expense

The following information has not yet been recorded:

1. Rates owing at 30 June, $4820.
2. Depreciation on the equipment is $3680. Depreciation on the building is $9600.
3. An advance fee payment of $600 for minor surgery to be performed in July 2016 was credited to Fees Earned.
4. The mortgage contract provides for a monthly payment of $1000 plus accrued interest. The June payment was not made. Interest of $260 is accrued on the mortgage.
5. Prepaid insurance of $1340 has expired.
6. Salaries earned but not paid amount to $2360.

Required

A. Prepare a 10-column worksheet for the year ended 30 June 2016.
B. Prepare an income statement, a statement of changes in equity and a balance sheet.
C. Journalise the closing entries.

Problem 5.6 FINANCIAL STATEMENTS FROM AN ADJUSTED TRIAL BALANCE; ADJUSTING AND CLOSING ENTRIES

GST **LO 3, 4, 5**

The adjusted trial balance of Brompton Bowling Alley at 30 June 2017, the end of the entity's accounting year, follows:

BROMPTON BOWLING ALLEY

Adjusted Trial Balance

as at 30 June 2017

Account	Debit	Credit
Cash at bank	$ 8 660	
Accounts receivable	27 220	
Supplies	11 070	
Prepaid insurance	6 870	

GST receivable	6 470	
Bowling equipment	230 790	
Accumulated depreciation – bowling equipment		$ 85 290
Building	400 990	
Accumulated depreciation – building		54 780
Accounts payable		58 650
Interest payable		7 100
Wages and salaries payable		3 620
Unearned fees revenue		10 980
GST payable		15 020
Loan from XYZ Bank Ltd (non-current)		233 700
B. Awls, Capital		262 430
B. Awls, Drawings	90 000	
Fees revenue		248 320
Depreciation expense – bowling equipment	20 100	
Depreciation expense – building	9 630	
Wage and salaries expense	89 400	
Insurance expense	17 040	
Interest expense	14 510	
Electricity expense	17 010	
Council rates expense	8 830	
Supplies expense	21 300	
	$979 890	$979 890

Additional data taken into account in the preparation of the above adjusted trial balance at 30 June 2017:

1. Unearned fees revenue earned during the year, $5540.
2. Prepaid insurance expired during the year, $17 040.
3. Accrued interest expense, $7100.
4. Supplies used during the year, $21 300.
5. Fees revenue earned but not received, $7860.
6. Depreciation for the year: bowling equipment, $20 100; building, $9630.
7. Accrued wages and salaries expense, $3620.

Required

A. Prepare the income statement and statement of changes in equity for the year ended 30 June 2017 and a classified balance sheet as at 30 June 2017.
B. Record adjusting and closing entries in the general journal.
C. Prepare any suitable reversing entries on 1 July 2017.

Problem 5.7 ADJUSTING AND CLOSING ENTRIES FROM TWO TRIAL BALANCES LO 3, 4, 5

There is a travel agency operating in a suburban shopping centre in Broome called Top End Tours. Two trial balances prepared at different stages of the accounting cycle are presented below (account balances are all normal and GST is ignored):

Account	**Trial balance** at 30 June 2017	**Adjusted trial balance** at 30 June 2017
Cash at bank	$ 7 200	$ 7 200
Accounts receivable	9 000	10 500

Office supplies	4 850	1 500
Prepaid insurance	5 400	1 200
Prepaid rent on premises	6 400	1 200
Office equipment	73 800	73 800
Accumulated depreciation – office equipment	—	7 800
Accounts payable	18 000	18 200
Yim Yu Chang, Capital	74 050	54 450
Yim Yu Chang, Drawings	15 000	10 500
Commission revenue	62 500	64 000
Salaries expense	24 300	25 400
General expense	8 600	8 800
Office supplies expense	—	3 350
Insurance expense	—	4 200
Rent expense	—	5 200
Depreciation expense – office equipment	—	7 800
Salaries payable	—	1 100

Required

Show, in general journal format, the adjusting and closing entries that would have been made on 30 June 2017. Show also any suitable reversing entries on 1 July 2017.

Problem 5.8 ADJUSTING ENTRIES, POSTING TO T ACCOUNTS, REVERSING ENTRIES AND ENTRIES IN SUBSEQUENT PERIOD

LO 1, 4, 5

Selected accounts taken from the general ledger of Hampsteads showed the following balances at 31 December.

Prepaid Insurance

31/12	Bal.	2 750			

Insurance Expense

31/12	Bal.	0			

Interest Receivable

31/12	Bal.	0			

Interest Revenue

			31/12	Bal.	6 720

Wages Expense

31/12	Bal.	124 400			

Wages Payable

			31/12	Bal.	0

Required

A. Prepare adjusting entries for the accounts based on the following data that are not yet recorded.
   1. Insurance expired during the year, $1400.
   2. Wages earned by employees but not paid at year-end, $2280.
   3. Interest accrued but not yet received on a loan to employee, $580.

B. Open T accounts for each of the accounts listed. Enter the 31 December balances and the adjusting entries.

C. Enter in the appropriate accounts the closing entries that would be made at year-end.

D. Complete the following table:

Account	Balance before adjustment	Effects of adjusting entries	Balance after adjustments	Effects of closing entries	Balance after closing entries
Prepaid Insurance	$2 750	–$1 400	$1 350	0	$1 350
Insurance Expense					
Interest Receivable					
Interest Revenue					
Wages Payable					
Wages Expense					

E. Hampsteads follows the practice of making reversing entries. Prepare the reversing entries that would be made on 1 January of the next period.
F. Record the payment of $2940 in weekly wages on 3 January and the collection of $740 in interest on 18 January. What are the balances in the Wages Expense and Interest Revenue after these entries are posted?
G. Prepare the two entries given in requirement F, assuming the company did not prepare reversing entries.

Problem 5.9 ADJUSTING AND REVERSING ENTRIES LO 5, 6

The records of Townsville Ltd contain the following information at 31 December, the end of the year. Ignore GST.

1. Wages earned but not paid total $2050.
2. Depreciation on the office equipment is $13 020.
3. Interest of $740 has accrued on a loan payable.
4. Services performed for clients, but not yet recorded, amount to $6528.
5. On 15 September, the company paid $2880 for a 6-month advertising campaign beginning on that date. This transaction was recorded by debiting Prepaid Advertising. At the end of the year, advertising costing $2240 had been consumed.
6. The unearned revenue account has a balance of $1605, recorded when cash was received on 1 November. It was expected the $1605 would be earned equally over November, December and January.
7. The company decided to declare a dividend of $12 000 to its shareholders on 31 December.

Required

A. Prepare adjusting entries for items 1 to 7 above.
B. Prepare reversing entries where appropriate. Where no reversing entry is required, explain why.

Problem 5.10 ADJUSTING AND REVERSING ENTRIES LO 5

The following information concerning Tsang & Family is available at 30 June, the end of the financial year:

1. Interest earned but not received totals $3105.
2. Tsang & Family received $3948 rental revenue on 1 May for the 3-month period beginning on that date. The transaction was recorded by a credit to Unearned Rental Revenue.
3. Prepaid Insurance was debited for $2124 on 28 February to record the cost of a 6-month policy beginning on 1 March.
4. The June electricity bill for $582 has not been paid or recorded.

Required

A. Prepare an adjusting entry for each item.
B. Prepare reversing entries where appropriate.

Problem 5.11 ADJUSTING ENTRIES, FINANCIAL STATEMENTS, CLOSING ENTRIES, REVERSING ENTRIES **LO 1, 4, 5**

The trial balance shown below summarises the year's activities for Nova Caine's dental surgery.

NOVA CAINE, DENTIST
Unadjusted Trial Balance
as at 30 June 2016

Account	Debit	Credit
Cash at bank	$ 5 600	
Fees revenue		$ 610 000
Accounts receivable	56 000	
Equipment	520 000	
Accumulated depreciation – equipment		165 000
Dental supplies	142 000	
Office supplies	8 000	
Nova Caine, Capital		357 600
Nova Caine, Drawings	120 000	
Accounts payable		20 000
Wages expense – dental assistants	142 000	
Rent expense	65 000	
Office expenses	27 000	
General expenses	67 000	
	$1 152 600	$ 1 152 600

The following additional information should be considered:

1. Inventory of dental supplies on hand at 30 June is $16 400; $2400 office supplies are on hand.
2. Depreciate equipment at the rate of 15% p.a. on cost ($520 000).
3. Rent of $5000 has been paid in advance and has been debited to rent expense.
4. Wages earned by the dental assistants but unpaid, $1620.

Required

A. Journalise the adjusting entries.
B. Journalise the closing entries.
C. Prepare an income statement, a statement of changes in equity and a balance sheet.
D. Journalise the reversing entries (if any).

Problem 5.12 THE COMPLETE ACCOUNTING CYCLE **LO 3, 4**

Andy Harris owns Piano Tuning Service. The post-closing trial balance at 30 June 2016 is shown below. Ignore GST.

Account	Account number	Debit	Credit
Cash at bank	1100	$ 4 200	
Accounts receivable	1200	3 520	
Prepaid insurance	1300	460	
Supplies	1400	680	
Motor vehicle	1500	42 800	
Accumulated depreciation – motor vehicle	1510		$16 050
Accounts payable	2000		6 880
Interest payable	2100		880
Bank loan	2200		14 000
A. Harris, Capital	3000		13 850
		$51 660	$51 660

Transactions completed during the year ended 30 June 2017 are summarised below:

1. Tuning fees of $78 000 were receivable during the year; $42 700 of this total was received in cash. The remainder consisted of transactions on credit.
2. Revenue from piano repairs was $48 700. Cash received totalled $33 500, and accounts receivable increased by $15 200.
3. Supplies costing $820 were purchased during the year on credit.
4. On 1 January 2017, Andy Harris paid $6000 off the bank loan plus interest of $1800. The interest payment consisted of $880 accrued up to 1 July 2016 and a further $920 which accrued for the period to 31 December 2016.
5. Fuel for the vehicle cost $5200 in cash.
6. Insurance on the vehicle, paid in advance, was $1260.
7. Telephone expense of $1480 was paid.
8. Accounts receivable of $47 800 were collected, and $4000 was paid on accounts payable.
9. Andy Harris withdrew $48 000 cash from the business.

The following information relating to adjusting entries is available at the end of June 2017:

10. A physical count showed supplies costing $400 on hand at 30 June 2017.
11. Accrued interest on the bank loan is $420.
12. Insurance costing $1200 expired during the year.
13. Depreciation on the vehicle is $8700.
14. The June telephone account for $264 has not been paid or recorded.

Required

A. Open T accounts for the accounts listed in the post-closing trial balance and the accounts below. Insert beginning balances in the accounts as shown in the post-closing trial balance.

Account	Account number
Telephone Expense Payable	2300
A. Harris, Drawings	3100
Profit or Loss Summary	3200
Piano Tuning Fees Revenue	4000
Piano Repair Fees Revenue	4100
Fuel Expense	5000
Telephone Expense	5100
Supplies Expense	5200

Insurance Expense	5300
Depreciation Expense – Vehicle	5400
Interest Expense	5500

B. Prepare journal entries to record the transactions (numbers 1–9) completed in the year to 30 June 2017.
C. Post the entries to T accounts.
D. Prepare a 10-column worksheet.
E. Prepare an income statement, a statement of changes in equity and a balance sheet.
F. Prepare and post the adjusting entries.
G. Prepare and post the closing entries.
H. Prepare a post-closing trial balance.

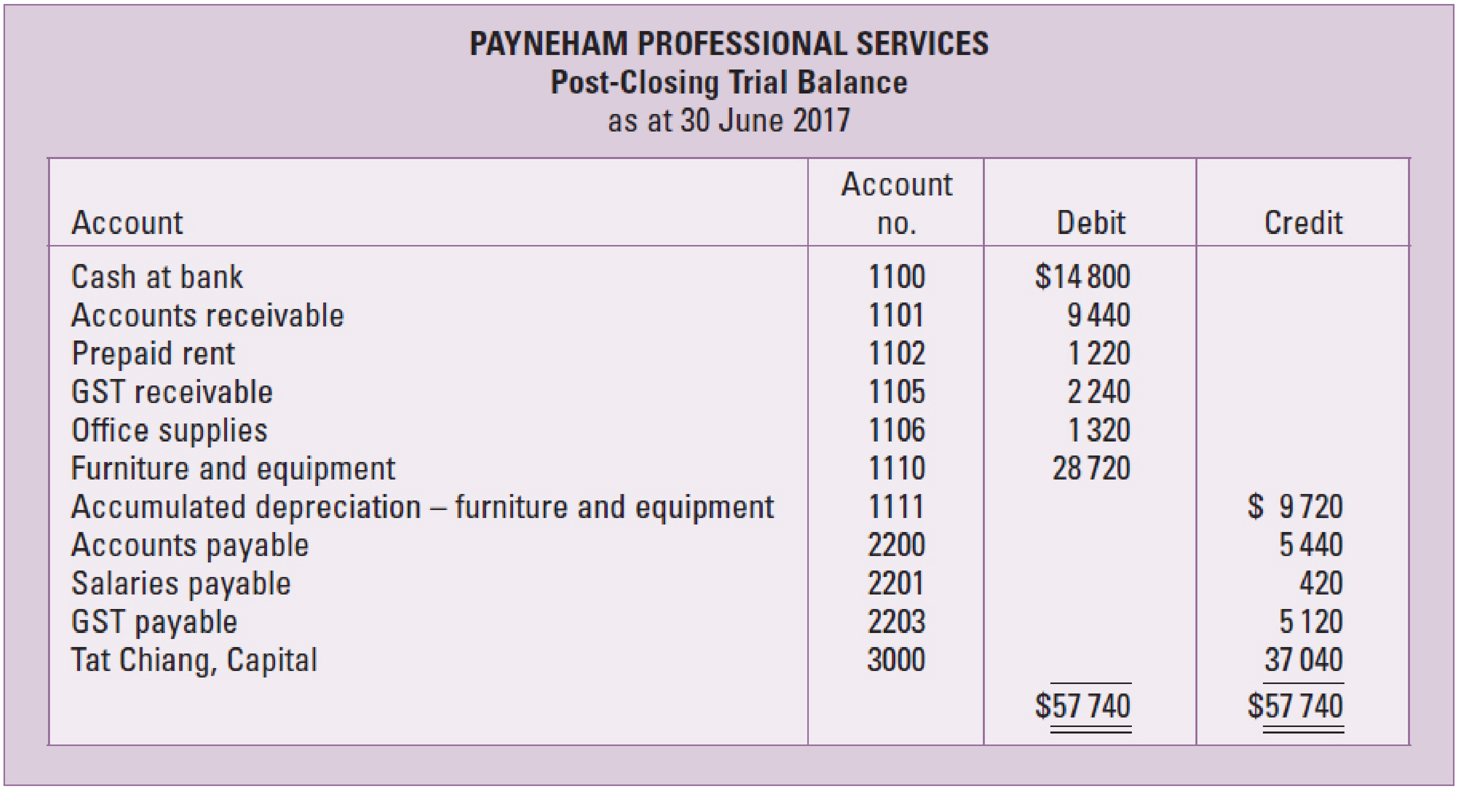
Problem 5.13 THE COMPLETE ACCOUNTING CYCLE

GST **LO 3, 4, 5**

The post-closing trial balance at 30 June 2017 of Payneham Professional Services is shown on the next page.

Transactions completed during the year ended 30 June 2018 are summarised below:

1. Collections on accounts receivable totalled $82 060.
2. Consulting fees of $88 150 plus GST of 10% were receivable during the year. Clients are invoiced after services are provided and are given 30 days in which to pay.
3. Rent paid in advance was $14 580, plus GST.



PAYNEHAM PROFESSIONAL SERVICES
Post-Closing Trial Balance
as at 30 June 2017

Account	Account no.	Debit	Credit
Cash at bank	1100	$14 800	
Accounts receivable	1101	9 440	
Prepaid rent	1102	1 220	
GST receivable	1105	2 240	
Office supplies	1106	1 320	
Furniture and equipment	1110	28 720	
Accumulated depreciation – furniture and equipment	1111		$ 9 720
Accounts payable	2200		5 440
Salaries payable	2201		420
GST payable	2203		5 120
Tat Chiang, Capital	3000		37 040
		$57 740	$57 740

4. Office supplies were purchased during the year for $380 plus GST in cash and $420 plus GST on credit.
5. Tat withdrew $25 000 for private use.
6. Salary payments amounted to $31 940, of which $420 was for salaries accrued to the end of the year ending 30 June 2017.
7. Advertising totalling $3360 plus GST was purchased on credit.
8. Electricity expense of $3600 plus GST was paid.
9. Accounts payable of $2880 were paid.
10. GST payable of $9120 less GST receivable of $2400 were forwarded in cash during the year to the

Australian Taxation Office.

The following additional information should be considered for adjusting entries:

11. Unused office supplies on hand at the end of the year totalled $760.
12. Depreciation on the furniture and equipment is $4600.
13. Salaries earned but not paid amount to $1180.
14. Rent paid in advance in transaction 3. Rent for 6 months of $7290 plus GST was paid in advance on 1 August and 1 February.

Required

A. Prepare the ledger of Payneham Professional Services by opening T accounts for the accounts listed in the post-closing trial balance and for the accounts listed below. Post the 30 June 2017 balances.

Account	**Account number**
Tat Chiang, Drawings	3301
Profit or Loss Summary	3320
Consulting Fees Revenue	4400
Salaries Expense.	5500
Electricity Expense	5503
Advertising Expense	5504
Depreciation Expense	5505
Rent Expense	5512
Office Supplies Expense	5513

B. Prepare journal entries to record the transactions numbered 1–10.
C. Post the entries to the T accounts.
D. Prepare a 10-column worksheet for the year ended 30 June 2018.

E. Prepare an income statement, a statement of changes in equity and a balance sheet.
F. Journalise and post the adjusting entries.
G. Journalise and post the closing entries.
H. Prepare a post-closing trial balance.
I. Prepare any suitable reversing entries on 1 July 2018.

Problem 5.14 COMPLETE ACCOUNTING CYCLE, RUNNING BALANCE ACCOUNTS **LO 3, 4, 5**

Browne Cleaning and Gardening Services commenced on 1 June 2017 when Lorne Browne contributed $120 000 into a business bank account. Perhaps more thought could have been given to the business name. The following transactions occurred in the month of June. Ignore GST.

June 1 Lorne signed a lease agreement to lease a suitable storage shed for a monthly rental of $2600. Rent for 3 months was paid in advance. He also hired an assistant to help him with cleaning and lawn mowing tasks. The assistant was to be paid casual wages.

2 The business acquired suitable cleaning and gardening equipment for a total cost of $40 320. A deposit of $8500 was paid immediately and the balance was to be paid in 30 days. The equipment was expected to have a useful life of 6 years.

2 Purchased a quantity of washing supplies for $1060 cash. Purchased fuel and oil supplies for $1740 cash.

3 Signed a contract with Community Newspapers for 12 weeks of advertisements in its weekly, free newspaper delivered to local homes. The business paid $960 in advance for these advertisements.

6 Received cash of $180 from a grateful client whose house had been cleaned by the business before the monthly rent inspection. Received cash of $2800 for several lawns that had been mowed for clients during the week.

8 Signed a contract with the local shopping centre to provide cleaning services to its outside walls (including graffiti removal) for a monthly fee of $3200. The shopping centre paid for 2 months' services in advance.

13 Received cash of $3000 for lawn mowing services provided to clients during the past week.

14 Paid the assistant casual wages of $1540 for services provided to the business during the past fortnight.

21 Earned $1600 for cleaning services from clients and $2790 for lawn mowing during the past week. All money was received in cash except for one client for cleaning services, who arranged to pay the business $300 in 3 weeks' time for services rendered.

28 Received in cash the sum of $1760 for cleaning services provided to clients and $2530 for lawn mowing and gardening services provided during the past week.

28 Paid the assistant $1670 for services provided to the business during the past fortnight.

30 Lorne withdrew $4000 in cash from the business in order to pay for essential provisions for his family.

Additional information

The accounting period closed on 30 June 2017, and the following additional data was available.

1. Wages owing to the assistant on 30 June amounted to $620.
2. A physical count showed that only $260 of washing supplies and $750 of fuel and oil supplies were still on hand.
3. Four weeks of advertisements had appeared in the local community newspaper up to 30 June.
4. Cleaning services of $550 had been rendered to clients on 29 June but the invoice to bill these clients had not been prepared.
5. The business had provided cleaning services to its shopping centre client for 3 weeks of the first month (assumed to be 4 weeks long).

Required

A. Prepare journal entries to record the June 2017 transactions for Browne Cleaning and Gardening Services and post these journal entries to suitable running balance ledger accounts. Provide appropriate account numbers and journal page numbers and record them in post ref. columns.

B. Prepare an unadjusted trial balance as at 30 June 2017.

C. Prepare adjusting entries and post them to the ledger accounts. Be careful to ensure that all adjusting entries have been recorded. Explain the reasons for each adjusting entry that you have made.

D. Prepare an adjusted trial balance.

E. Prepare closing entries, post them to the accounts and prepare a post-closing trial balance.

F. Prepare the income statement, the statement of changes in equity and the balance sheet as at 30 June 2017.

G. Prepare any suitable reversing entries on 1 July 2017 and post them to the accounts.

Problem 5.15 INCOME STATEMENT, ADJUSTING AND CLOSING ENTRIES, ADVICE FOR CLIENT

GST **LO 1, 4, 5**

Lara Knoffs, a qualified commercial artist, had worked as an employee of a large advertising agency for a number of years. She decided to resign her position and set up her own business which would be coordinated from the new home she and her husband had bought.

To establish the business, she invested $25 000 of her cash savings as capital. From this capital, she then purchased for the business equipment worth $15 000 with an expected life of 10 years and no residual value. Other specialist equipment cost $6600 (estimated life 6 years — expected residual value of $600). Lara charged competitive prices, produced quality work and built up a good clientele. Most customers paid a deposit before work started and bad debts had never been a problem.

Although there was a general feeling that the business was going well, Lara was concerned that she always seemed to have cash problems when trying to withdraw cash from the business at the same levels and above that she had earned as an employee. You have been asked by Lara to examine her business as she feels that it is not profitable.

An analysis of the Cash at Bank account for the financial year ended 30 June 2017 revealed the following:

Balance of cash at 1 July 2016		$ 3 100
Cash received from clients		88 750
		91 850
Cash payments:		
Accounts payable	$25 750	
Insurance prepaid (2 years from 1 July 2016)	3 600	
Materials and stationery	10 000	
Electricity and telephone	5 500	
Drawings for personal use	31 000	
Sundry expenses	14 700	90 550
Balance of cash at 30 June 2017		$ 1 300

This analysis highlighted Lara's major concern in that the $31 000 she had withdrawn was several thousand dollars below the wage which she had earned as an employee of the advertising firm. She believed, given her assessment of the poor profitability of her business, that perhaps she should return to work as an employee.

Other enquiries reveal the following:

1. Cash received from clients ($88 750) included payments for work done in the financial year ended 30 June 2016 to the value of $6750 and also $8000 prepaid for work to be done in the next financial year.
2. Materials and stationery on hand at 30 June 2017 were costed at $4500.
3. $14 250 was yet to be collected from clients for work done during the year ended 30 June 2017.

Required

A. Prepare a report for Lara that discloses the profitability of her business. Produce figures to substantiate the report.
B. Prepare the closing entries that would be needed on 30 June 2017.
C. Advise Lara as to whether she should dispose of the business and return to the advertising firm as an employee.

DECISION ANALYSIS

Retain or sell a business

Lucy Chan owns an online financial services company called RightFinance.com. She has some idea about accrual accounting but is not very clear on what to do, so she has come to you for help. Lucy aims to achieve a profit margin on her business of 10%. That is, she expects profit divided by total revenue to be at least 10% or more. Lucy has provided the income statement below, which shows a profit margin of 7% ($29 000/$414 285). If the profit margin falls below 10%, Lucy intends to sell the business. Lucy knows that some accrual accounting adjustments need to be made and that is why she is seeking your help.

RIGHTFINANCE.COM
Income Statement
for the year ended 30 June 2016

INCOME	
Revenues:	$414 285

Fees revenue		
EXPENSES		
Salaries	$283 170	
Subcontracting expenses	57 815	
Council rates expense	2 600	
Insurance expense	7 000	
Advertising expense	12 500	
Rent expense	19 800	
Sundry expenses	2 400	
		385 285
PROFIT		$29 000

To determine the adjustments that need to be made, you have a long discussion with Lucy that reveals the following.

1. The fees revenue includes $900 for cash received but the services have not yet been provided to the customer.
2. A staff member went on holidays at the end of June and his July wages of $2300 are included in ‘salaries’.
3. A prepayment of rent of $1400 for June is still shown in the balance sheet as an asset.
4. Depreciation expense of $6000 for the year has not yet been charged to the accounts.

Required

Should Lucy retain the business or sell it, given her requirement that the profit margin must be 10%? Explain the reason for your conclusion, showing calculations.

CRITICAL THINKING

Accountability of aid organisations

Aid and development organisations, such as World Vision, have many different programs and campaigns to raise money for the purpose of emergency relief work in specific countries, and for large development projects. They are also involved in alleviating poverty around the world. Furthermore, World Vision has a program of child sponsorship in underdeveloped countries to provide a basic education for underprivileged children. It is important that World Vision (and other similar organisations) is accountable for the money collected, for the money spent, and for any government assistance received. In order for this to happen, the management requires monthly financial reports. Assume that it is your job to prepare these reports.

Required

A. Consider carefully the types of information that you would need to provide to management in order to satisfy their needs for accountability in relation to the above activities of the organisation.
B. What advantages (if any) would be provided by the use of worksheets in the preparation of this information?

COMMUNICATION AND LEADERSHIP

To reverse, or not to reverse

Form into groups of three or four. Half of the groups are to prepare a report on the advantages of not reversing adjusting entries at the beginning of the next financial year and the disadvantages of preparing reversing entries.

The other groups are to prepare a report on the disadvantages of not reversing adjusting entries at the beginning of the next financial year and the advantages of preparing reversing entries.

Then, alternating between arguments, the groups report back to the class.

FINANCIAL ANALYSIS

Refer to the consolidated financial statements in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions:

1. What are the different types of revenues generated by the consolidated group?
2. How are the group's assets classified?
3. What are the major categories listed among the group's equity? Have there been any shares issued during the past financial year? How many ordinary shareholders did JB Hi-Fi Limited have at the end of the financial year?
4. What is the group's current liability for dividends to ordinary shareholders? If you owned only 100 ordinary shares in JB Hi-Fi Limited, how much would you receive in dividends?
5. How do the dividends per share compare with the group's 'earnings' per share?

CHAPTER 6

Accounting for retailing

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the steps in the accounting cycle (p. 128)
- how to prepare a worksheet (pp. 153–8)
- how to prepare adjusting and closing entries (pp. 134–45)
- how to prepare financial statements from a worksheet (pp. 159–60)
- basic features of the goods and services tax and its impact on accounting in a service business (pp. 108–10).

Learning Objectives

After studying this chapter you should be able to:

1 describe the nature of inventory and retailing operations (p. 236–7)
2 describe the basic format of an income statement for retail businesses (p. 237)
3 account for sales transactions of retail businesses, including goods and services tax, the treatment of sales returns, cash discounts, trade discounts and freight costs (pp. 238–44)
4 account for purchases of inventory and cost of sales under both the perpetual and periodic inventory systems by retail businesses (pp. 244–56)
5 prepare worksheets and close the accounts for retail businesses for both the perpetual and periodic inventory systems (pp. 256–9)
6 prepare a detailed income statement for a retail business (p. 260)
7 describe the net method of recording purchases and sales whenever there are settlement discounts (pp. 261–2)
8 perform a brief analysis of profitability in a retail business for decision-making purposes (pp. 262–4).

Target’s troubles lead to pain for all

Last week, the black sheep of Wesfarmers’ retail family, Target, took investors by surprise when it lowered its second-half forecast earnings before interest and tax to between a loss of $8 million to a profit of $12 million — representing a massive downgrade in earnings. The company told the market a few weeks back that it was having troubles with its inventory levels and its chief executive had been replaced. Clearly the problems were significantly larger than had been expected.

(A reasonable portion of its inventory writedown involved ‘shrinkage’. Exactly how Target management could lose this stock brings into question its accounting practices and systems.)

The trouble is that Target’s problems have a contagion effect. Even one large retailer with a giant excess inventory problem will send ripples through the market. Target will need to discount heavily to get rid of stock and competitors will need to undertake some degree of discounting.

Thus Big W and Kmart will get caught in the crossfire. Myer also shares some of its customer base with Target and will have to discount selectively. Because Myer competes with David Jones and specialty fashion companies like Just Group, all will wear some pain from Target’s mishaps.

But Target can’t take the blame for the widespread issues in discretionary retailing.

Consumers are not in the right psychological frame of mind for buying, other than on products that are particularly enticing.

They have also become addicted to discounts and one of the features of the retail environment over the past six months is that stores have been attempting to wean customers off the discounting drip.

It’s a tricky time to undertake this manoeuvre. Consumer sentiment, which was improving for the first few months of the year, has now hit a wall. Retraining customers to buy more and pay for it is a tall order in this environment. The consumer response has been something of a protest and this will put pressure on retail sales in the current half.

The retailers have come to the conclusion that they can’t keep discounting to attract sales and have instead started to focus on gross sales margin — the difference between the cost of goods bought from wholesalers and the price the goods are sold to consumers.

The key to working this strategy well is to reduce inventory levels in order to avoid getting stuck with excess stock at the end of the season that would need to be sold at a discount.

David Jones has been heralding its tight inventory control for six months. Its sales revenue may be under pressure but it should avoid the inventory trap.

Source: Knight, E 2013, 'Target's troubles lead to pain for all', The Sydney Morning Herald, 21 May, www.smh.com.au.

Chapter preview

In previous chapters, an entity that provided personal services to customers and clients was used to illustrate the accounting cycle. Service businesses make up a significant part of our economy and provide a wide range of important service products. Such businesses include law firms, accounting firms, medical and dental practices, management services, motels, hairdressers, airlines, real estate, travel agencies, golf clubs, cinemas, photographic studios, shire and city councils, and government departments.

The main activity of many other businesses involves goods rather than on services. ***Manufacturing businesses*** purchase raw materials and component parts for conversion into finished products for sale. ***Retailing businesses***, which often distribute at both the wholesale and retail levels, purchase goods that are in a form ready to be sold to their customers. ***Wholesale businesses*** normally buy commodities in bulk from manufacturers/producers and then distribute in smaller lots or units to ***retail businesses***, which in turn sell to the final consumer.

Several large firms operate in the retail market in Australia and New Zealand. For example, David Jones and Myer run well-known department stores around Australia and countless other organisations conduct business in the retail sector, many of which franchise out their operations — Wesfarmers (which owns Bunnings hardware, Coles, Kmart and Target stores), Harvey Norman, The Warehouse, JB Hi-Fi, Lowes Menswear, Woolworths and Hungry Jacks, to name a few. The distribution of goods throughout Australia and New Zealand is thus a highly complex and expensive operation for large decentralised retailers, and they are constantly seeking ways to efficiently track the movement of goods among stores and within retail outlets. Controlling inventory is extremely important to the success of an entity as highlighted in the scene setter. The retail sector is also characterised by a large number of small and medium-sized enterprises (often referred to as SMEs).

The accounting principles and methods described in earlier chapters apply to retail businesses, but a number of additional accounts and procedures are used to record inventory transactions. This chapter considers these.

6.1 Inventory

LO 1 **Describe the nature of inventory and retailing operations.**

The term **inventory** is used in a retail operation to mean goods or property purchased and held for sale. Other assets held for future sale but not normally sold as part of regular business activities, such as an item of used office equipment that is no longer needed, are not included in the inventory category. Nor are stationery supplies regarded as inventory because they are not held for sale in the operating cycle of the business.

Stock and ***stock in trade*** are commonly used terms for inventory. In conformity with accounting standard IAS 2/AASB 102 ***Inventories***, the term 'inventory' is used in this text.

Retail business operations

The operating cycle for a retail business is the average length of time it takes for the business to acquire inventory, sell that inventory to its customers and collect cash from those customers. At the time of purchase, inventory is recorded at cost. The cost of inventory available for future sale is reported in the balance sheet as a current asset. In the income statement, the cost of inventory sold during the current period is charged against the income (revenue) received from selling it.

Determination of profit is a major objective of accounting for inventory. It involves determining the amount of the total inventory cost to be deducted from sales in the current period and the amount to be carried forward as an asset to be expensed in some future period. One of the major problems in accounting for inventory concerns the allocation of the costs of inventory over goods sold during a period and the goods held at the end of a period for sale in a future period.

Inventory is one of the most active assets in a retail business. It is continually being acquired, sold and replaced. Inventories can also make up a significant part of a business's total assets. The cost of sales for a given period is often the business's largest expense, sometimes exceeding the total of all other expenses. For these reasons, the control and safeguarding of inventory is essential for efficient and profitable operations.

LEARNING CHECK

- ☐ ***Inventory*** is the term used in retail operations to refer to goods or property purchased and held for sale in the operating cycle of the business.
- ☐ The operating cycle for a retail business is the average length of time it takes for the business to acquire inventory, sell that inventory to customers and collect cash from those customers.

6.2 Condensed income statement for a retailer

LO 2 **Describe the basic format of an income statement for retail businesses.**

A simplified income statement for The Fashion Shop Ltd, a retail business, is shown in figure 6.1.

Figure 6.1 Simplified income statement for a retail business

THE FASHION SHOP LTD
Income Statement
for the year ended 31 December 2016

INCOME		
Revenue:		
Net sales revenue		$692 890
Less: Cost of sales		470 490
GROSS PROFIT		222 400
Other income		5 260
		227 660
EXPENSES		
Selling and distribution	$100 270	
Administrative	78 850	
Finance and other	4 260	183 380
PROFIT (before income tax)		$ 44 280

A comparison of this statement with the one prepared for Intellect Management Services (p. 159) reveals several differences.

- Income (revenue) is the first item reported in both cases, but for a retail business the most important revenue is **sales** (net sales revenue).
- A major difference is the inclusion of the **cost of sales**, which shows the total cost of the inventory that was sold during the period. The cost of sales is subtracted from net sales revenue to arrive at an intermediate amount called **gross profit** (or **gross margin**) **on sales**.
- After adding any other income, expenses are subtracted to determine the profit (or loss) for the period. Although many of the expenses incurred by a service business are also incurred by a retail business, there are other expenses that relate to buying and selling inventory. Expenses are normally grouped by function. **Selling and distribution expenses** result from efforts to sell the inventory and include storage costs, advertising, sales salaries and commissions, and the cost of delivering goods to customers. **Administrative expenses** are expenses associated with operating the general office, accounting systems and personnel. A third category, **finance expenses**, represents expenses of financing the business's operations, collecting debts and running the credit department, e.g. interest, bad debts, and cash discounts allowed for prompt payment by debtors. Any other expenses are then usually added to finance expenses and reported under

the category ‘finance and other expenses’.

LEARNING CHECK

☐ For a retail business, the most important item of income (revenue) is sales (net sales revenue).
☐ ‘Cost of sales’ is subtracted from sales revenue to arrive at gross profit on sales.
☐ After adding any other income, expenses are subtracted to determine profit (or loss) for the period.
☐ Expenses for a retail business include selling and distribution expenses, administrative expenses, and finance and other expenses.

6.3 Accounting for sales transactions, including GST

LO 3 **Account for sales transactions of retail businesses, including goods and services tax, the treatment of sales returns, cash discounts, trade discounts and freight costs.**

Retailing and the goods and services tax

The goods and services tax (GST) is introduced in the appendix to chapter 3, where the features of the GST legislation as it applies to the purchase and supply of services are explained. This chapter focuses on retail businesses that purchase goods for resale as well as the services (e.g. electricity) required to carry on business. Under GST legislation, retail businesses have to register for an Australian business number (ABN) and hence GST if their gross taxable supplies (sales of goods) exceed $75 000 per year. Given the threshold, the GST affects most retail businesses unless they deal exclusively in GST-free supplies. In order for a retail business to claim input credits on its purchases of inventories and services, the suppliers of such inventories and services must also be registered for GST and must quote their ABN on supply documents, e.g. tax invoices. Retail businesses are required to issue tax invoices when goods subject to the GST are sold, and adjustment notes (credit notes) when adjustments are necessary. These relevant source documents are illustrated below.

Retail businesses must ensure that adequate records of GST payable and GST receivable are kept. As illustrated in earlier chapters, the two accounts used in this book for this purpose are GST Payable and GST Receivable. It is assumed that the accrual basis of accounting is used in all cases. The guiding principles for accounting for the GST are contained in Interpretation 1031 ***Accounting for the Goods and Services Tax (GST)***, issued by the Australian Accounting Standards Board (AASB). In relation to retailing, the effect of Interpretation 1031 is that all revenue, costs and expense amounts are recorded without GST, and receivables and payables are recorded including GST.

Tax invoices

For all sales in excess of $75, a retail business has to issue a **tax invoice** that complies with the GST legislation. Requirements for tax invoices vary depending on whether the total amount payable on the invoices is $1000 or more. Requirements common to all tax invoices are:

- the words ‘tax invoice’ stated prominently on the invoice
- the ABN of the entity issuing the invoice
- the date of issue of the invoice
- the name of the supplier
- a brief description of the items being supplied
- if the invoice is for a taxable supply ***and*** either a GST-free or input-taxed supply, the invoice must show each supply, the GST payable on each supply, and the total amount payable on the invoice as a whole.

For tax invoices where the total payable is less than $1000, there is another requirement in addition to those above — where the GST payable is exactly 1/11 of the total price, either the statement ‘the total price includes GST’ must appear on the invoice, or alternatively the GST amount on the supply can be shown separately.

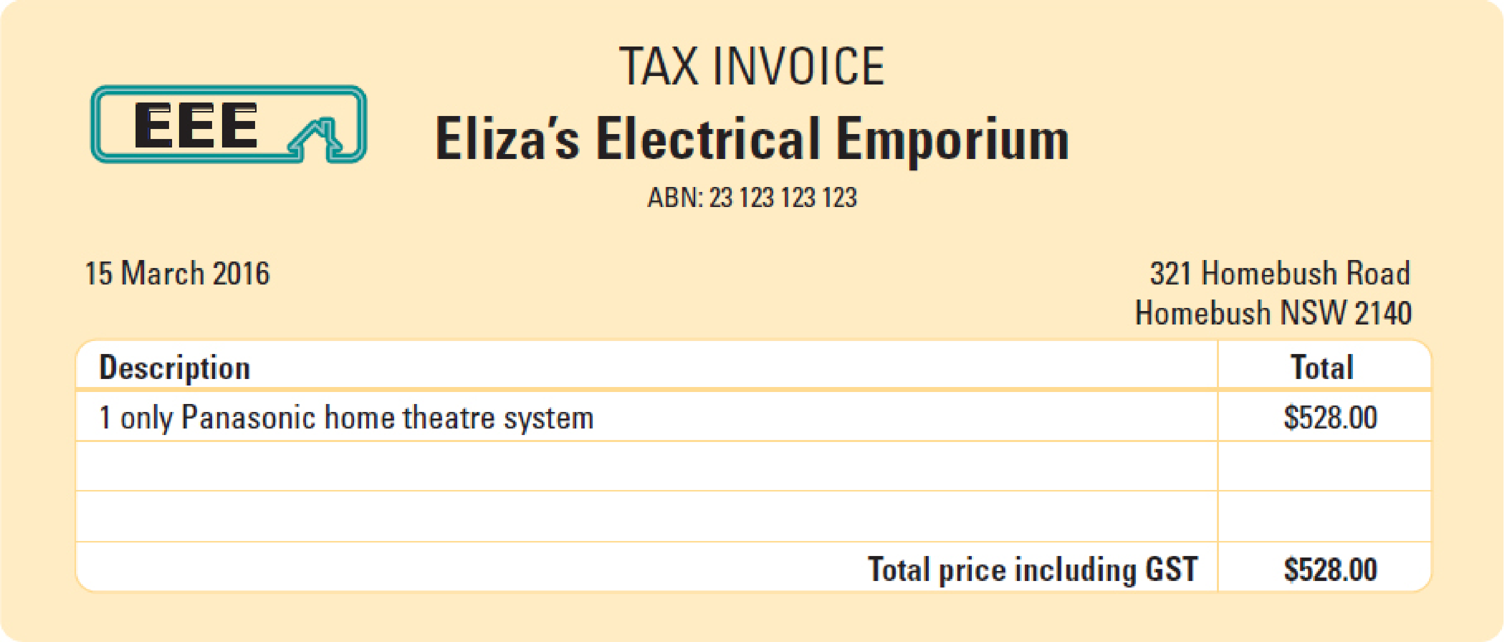
For tax invoices where the total payable is more than $1000, the requirements in addition to those shown above are:

- the name of the recipient of the invoice

- the ABN or the address of the recipient
- the quantity of the goods or extent of the services being supplied.

Where the total GST amount is exactly 1/11 of the total price, the invoice amount should show either a statement such as ‘the total price includes GST’ or the amount of GST. A tax invoice for a total amount less than $1000 is illustrated in figure 6.2 (opposite) (assuming a cash sale), and an invoice for a total amount of $1000 or more is illustrated in figure 6.3 (opposite) (assuming a credit sale with the offer of a cash settlement discount for prompt payment).

Figure 6.2 Tax invoice, less than $1000 — cash sale



TAX INVOICE

Eliza’s Electrical Emporium

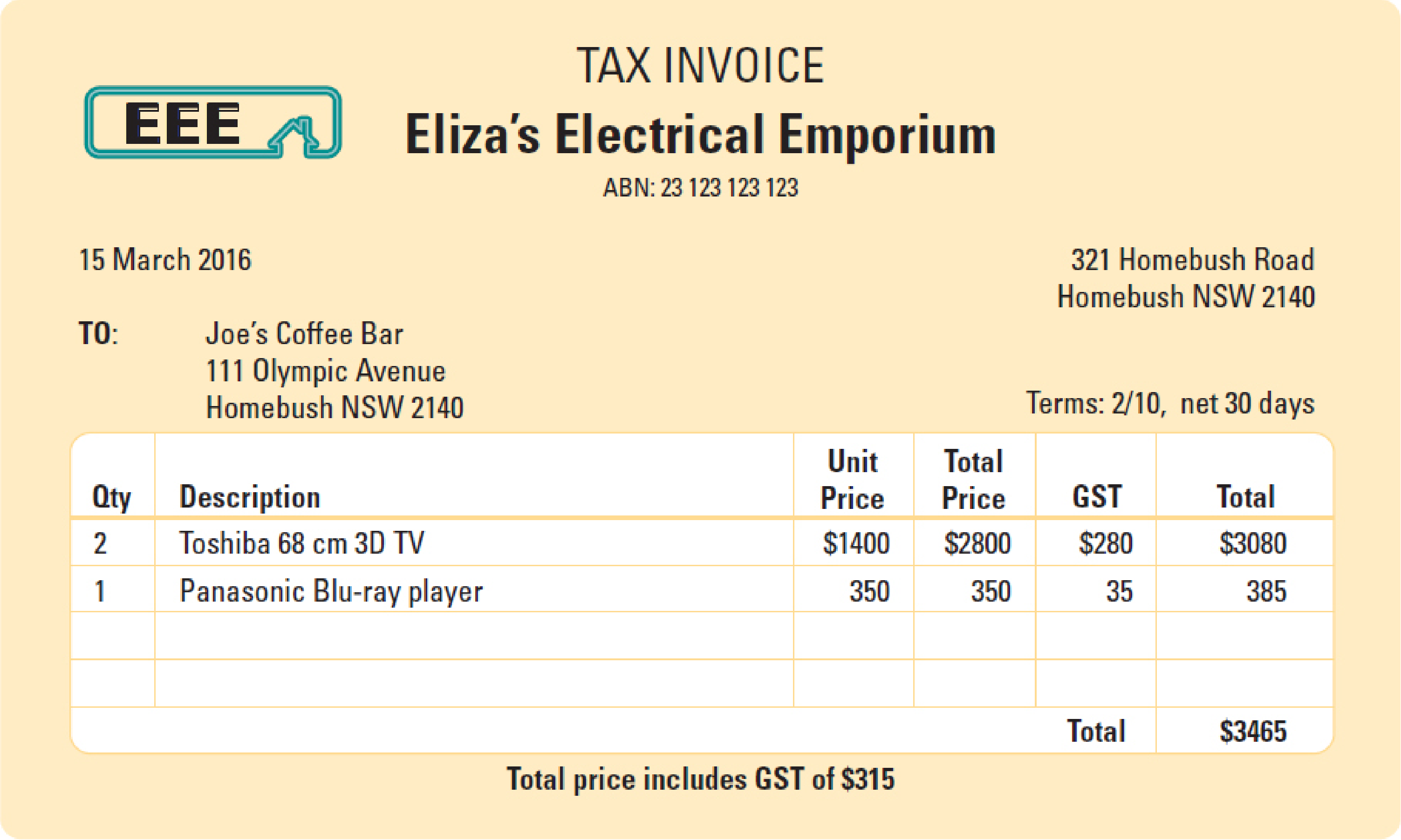
ABN: 23 123 123 123

15 March 2016

321 Homebush Road
Homebush NSW 2140

Description	Total
1 only Panasonic home theatre system	$528.00
Total price including GST	**$528.00**

Figure 6.3 Tax invoice, more than $1000 — credit sale



TAX INVOICE

Eliza’s Electrical Emporium

ABN: 23 123 123 123

15 March 2016

321 Homebush Road
Homebush NSW 2140

TO: Joe’s Coffee Bar
111 Olympic Avenue
Homebush NSW 2140

Terms: 2/10, net 30 days

Qty	Description	Unit Price	Total Price	GST	Total
2	Toshiba 68 cm 3D TV	$1400	$2800	$280	$3080
1	Panasonic Blu-ray player	350	350	35	385
				Total	**$3465**

Total price includes GST of $315

In practice, it is normal for a business to issue invoices with a common format, i.e. the invoice format as shown in figure 6.3 is often used for all transactions whether the total amount of the invoice is greater than $1000 or not. The format shown in figure 6.2 can be used only when all sales are less than $1000 in total.

Adjustment notes

When goods sold are later returned by the customer, or an allowance is given, it is a legislative requirement for the seller to give the customer an **adjustment note** detailing amendments to the GST amount for all adjustments totalling more than $50. The adjustment note represents notification that the amount of the debt owing by the customer is reduced, and includes a write-back of any GST charged in the original sale. An adjustment note is essentially a ‘negative invoice’. The **adjustment** usually results in an increase (decrease) in the net GST amount payable (refundable) for a tax period. An adjustment note can arise when:

- all or part of the goods sold are returned
- an allowance, including the granting of a cash discount (but see other options below) is made
- the price of a supply or acquisition is changed
- part of, or the full amount owing, has to be written off
- the retailer cannot pay a debt.

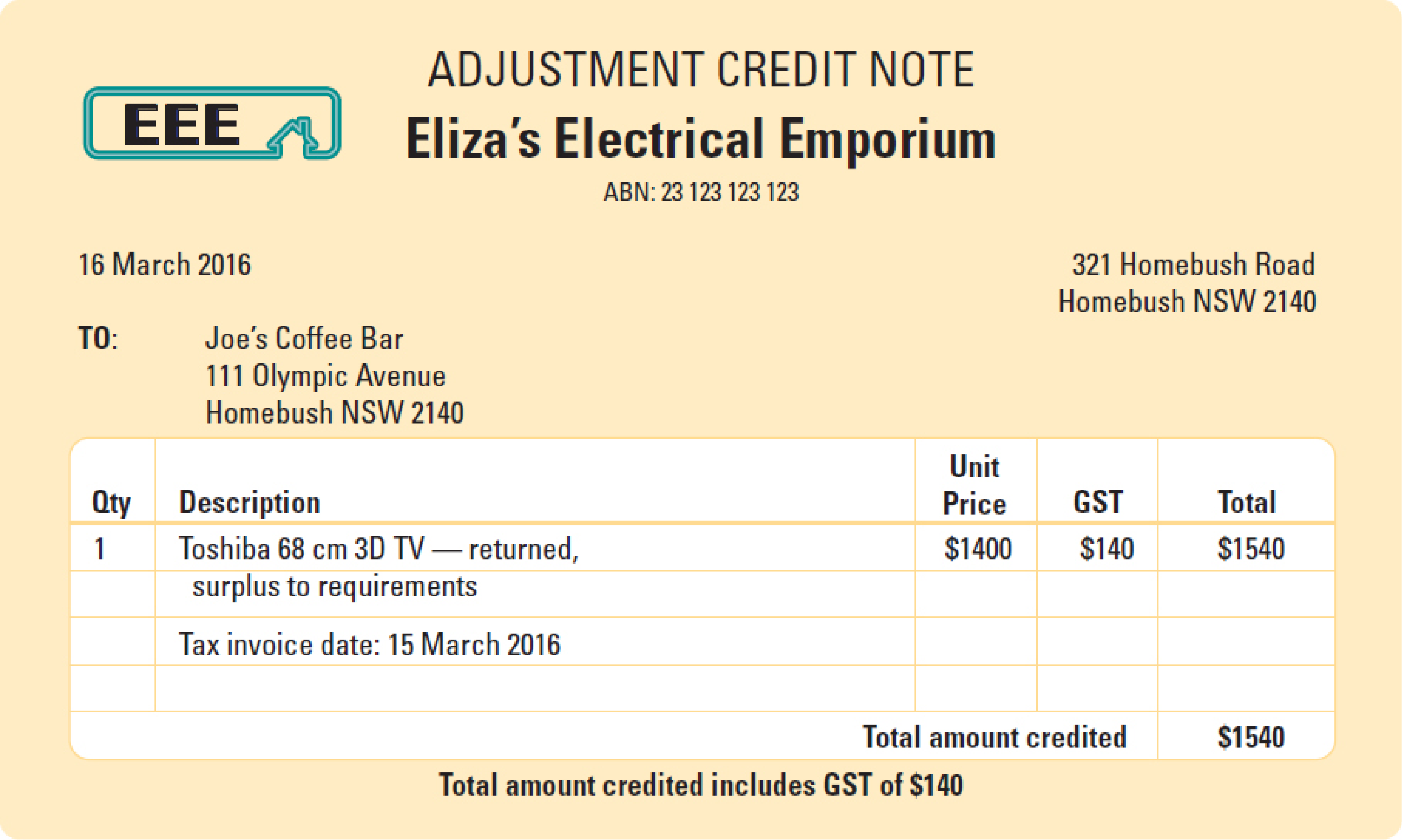
These types of adjustment notes represent credit advices, and could be described as adjustment credit notes.

Similarly, when a retailer returns goods previously acquired, or receives an allowance, or otherwise is entitled to an adjustment on which GST has been incurred, the original supplier is required

to issue an adjustment credit note. The receipt of the adjustment note by the retailer is then used as the basis for an adjustment of the GST that arose on the original purchase.

The legislative requirements for adjustment notes are essentially the same as for invoices, including the $1000 cut-off. A typical adjustment note is illustrated in figure 6.4 (note that the amount exceeds $1000).

Figure 6.4 Adjustment note



ADJUSTMENT CREDIT NOTE

Eliza’s Electrical Emporium

ABN: 23 123 123 123

16 March 2016

321 Homebush Road
Homebush NSW 2140

TO: Joe’s Coffee Bar
111 Olympic Avenue
Homebush NSW 2140

Qty	Description	Unit Price	GST	Total
1	Toshiba 68 cm 3D TV — returned, surplus to requirements	$1400	$140	$1540
	Tax invoice date: 15 March 2016			
			Total amount credited	**$1540**

Total amount credited includes GST of $140

Adjustment notes — other options

The GST legislation allows a valid tax invoice to serve both as a tax invoice and as an adjustment note. The most obvious application of this in practice arises where a customer or client accepts a discount offered for prompt payment. The supplier of the goods or services would not have to issue an adjustment note in this situation. All that is required is that the tax invoice includes the terms of settlement for prompt payment discount. Such terms are illustrated on the invoice in figure 6.3 (p. 239).

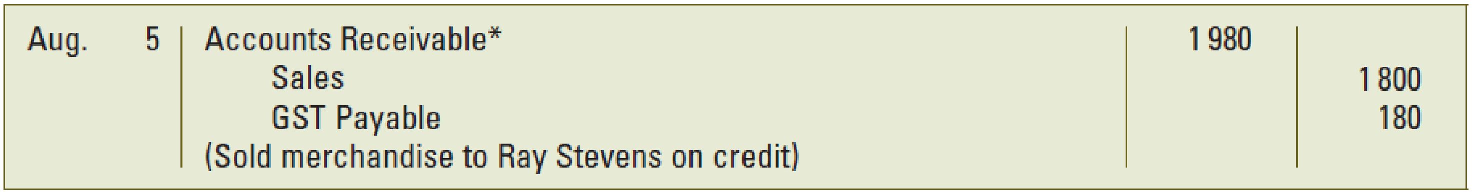
For those businesses that issue monthly statements, the statement can replace adjustment notes for returns, refunds, allowances and discounts provided certain requirements are met. Such a monthly statement must show all the details required for a valid tax invoice, and a separate amount must be shown for each adjustment.

In this chapter and throughout the book, tax invoices are issued for all supplies, and adjustment notes are issued for all adjustments except for cash settlement discounts. It is assumed that the terms of any cash settlement discounts offered are stated on the invoice. If the customer or client pays within the discount period, the invoice is assumed to be a combined invoice/adjustment note.

Note that even when the business collects GST on its sales and pays GST on goods purchased, GST does not affect the income statement. This reflects the principle stated above that income and expenses are recorded in the accounts at amounts excluding the GST. The GST is a collection of tax on behalf of the government which is then forwarded to the government, so it does not represent income or expenses of the business.

Accounting for sales transactions

A sales transaction is generally recorded by the retailer when inventory is transferred from the business to the customer. The sales revenue is recognised and recorded at the point of delivery and does not depend on when the cash for the sale is received. To record the sale, an asset account is debited and the Sales account is credited. The asset recorded in exchange for the inventory is normally Cash at Bank or Accounts Receivable. If the business is registered for the GST, the asset account (Cash or Accounts Receivable) is debited for the price of the goods plus the GST, the Sales account is credited for the net sales price (i.e. excluding GST), and the GST Payable account is credited for the GST included in the sale. The GST amount is received from the customer at the time of the cash sale or, in the case of a credit sale, when the customer pays the amount owing. The entry to record a credit sale including GST to Ray Stevens is:



Aug.	5	Accounts Receivable*	1 980	
		Sales		1 800
		GST Payable		180
		(Sold merchandise to Ray Stevens on credit)		

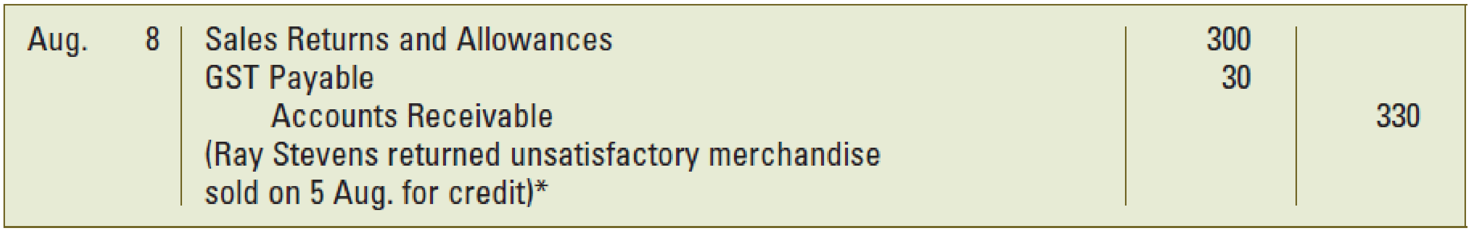
*Cash at Bank account is debited if the sale was for cash.

At the end of the accounting period, the balance in the Sales account shows the total amount of cash and credit sales made during the period excluding GST. When a sale is made on credit, the cash may be received in a subsequent period. As a result, there may be a significant difference between cash collections from sales and the balance accumulated in the Sales account. Cash collections from customers are shown in an entity's statement of cash flows, whereas the period's sales appear in the income statement. Future amounts to be collected are recorded as an asset, Accounts Receivable, in the balance sheet. Note that the Accounts Receivable balance includes GST.

Sales returns and allowances

In order to maintain good customer relations and to meet warranty agreements, most businesses permit a customer to return unsatisfactory goods. Goods may be regarded as unsatisfactory if they are damaged in transit, or are different from the goods ordered (e.g. wrong size, wrong colour). Alternatively, the customer may agree to keep the goods in exchange for a reduction in the sales price. The return of goods or an adjustment to the sales price (allowance) is a reduction in the amount of recorded sales, and either a cash refund is made to the customer, or the customer's account receivable is credited. If GST is included in the original sale, it is necessary to write back the GST included in the return against the GST payable amount recorded as a result of the sale. This requires a debit to the GST Payable account that was credited when the sale was made. A credit note is issued to the customer to confirm that a credit will be recorded for the return or allowance. If the business is GST-registered, then a valid adjustment credit note has to be issued if the total credited exceeds $50.

Handling returned merchandise is time-consuming and results in increased costs. For these reasons, management must look for the cause of excessive returns and correct the problem whenever possible. To provide information on the volume of returns and allowances, a contra sales account called Sales Returns and Allowances is debited as follows:



Aug.	8	Sales Returns and Allowances	300	
		GST Payable	30	
		Accounts Receivable		330
		(Ray Stevens returned unsatisfactory merchandise sold on 5 Aug. for credit)*		

*Making only one journal entry at this time assumes use of the periodic inventory system, discussed in a later section of this chapter.

Note that the Sales Returns and Allowances account is debited for an amount excluding GST. **Sales returns and allowances** are subtracted from sales in the income statement in order to show ***net*** sales revenue, as in figure 6.1 (p. 237).

Cash (settlement) discounts

The parties involved in an inventory transaction may agree that payment is to be made immediately on transfer of the goods as in a cash sale, or payment may be delayed for some specific length of time called the **credit period**. The length of the credit period varies among businesses.

When inventory is sold on credit, the terms of payment, called the **credit terms**, agreed to by the buyer and seller should be clear about the amount due and the credit period. The terms of payment normally appear on the invoice issued by the seller (as in figure 6.3). The credit period is often expressed in the following format: ‘net 30 days’ or ‘n/30’. In this case, the invoiced amount is due and payable within 30 days after the invoice date and no discount is offered.

To provide an incentive for the buyer to make payment before the end of the credit period, the seller may grant a **cash discount** called **discount allowed** by the seller and **discount received** by the buyer. A cash discount entitles the buyer to deduct a specified percentage of the sales price if payment is made within a given time span, the **discount period**. Cash discounts are also known as ***settlement discounts***. A Discount Allowed account is used by the seller to record the amounts of sales discount granted to customers. To the seller, a discount allowed represents a reduction in the selling price and therefore should be deducted from sales revenue to determine net sales.

The purchaser, on the other hand, records the purchases discount in an account called Discount Received. In accordance with IAS 2/AASB 102, the Discount Received account should be deducted against Purchases (if the periodic inventory system is used) or against Cost of Sales (if the perpetual inventory system is used) (see later in the chapter). If the terms are quoted as ‘2/10, n/30’ (read ‘two ten, net thirty’), then the buyer has two payment options. If payment is made within 10 days of the invoice date, the buyer may deduct 2% from the amount of the invoice. If payment is not made within the 10-day discount period, the full amount is due 30 days from the invoice date.

For GST-registered businesses, if customers take advantage of a settlement discount, they are in effect paying less of the total amount due. The reduced amount consists of a normal sales price component and the GST charged on those goods. The total GST on the original sales price needs to be reduced and the amount originally recorded in the GST Payable account has to be written back.

To illustrate, assume that goods were sold to A. Jones for $1000 plus GST of $100. The tax invoice for this transaction states a cash settlement discount of 2% will be allowed if the debt is paid within 15 days. If Jones pays within the discount period, the reduction in the amount that has to be paid is 2% of $1100 or $22. This adjustment to the debt consists of $20 on the normal sale price of the goods, plus $2 of GST ($22 × 1/11). The general journal entry to record the receipt of the money within the discount period is:

Aug.	10	Cash at Bank	1 078	
		Discount Allowed	20	
		GST Payable	2	
		Accounts Receivable – A. Jones		1 100
		(Payment of account within the discount period)		

If sales returns and settlement discounts have both occurred, then any GST included in the discount amount must be adjusted on the net amount receivable, i.e. after the sales return has been recorded. To illustrate, assume that the credit terms were 2/10, n/30 on the original $1980 sale (including GST of $180) to Ray Stevens recorded previously (p. 241). The entry to record the collection within the discount period, ***after allowing for the $330 return*** (see entry on p. 241), which reduces the net sales to $1500 (i.e. $1800 × $300), is:

Aug.	15	Cash at Bank	1 617	
		Discount Allowed ($1500 × 2%)	30	
		GST Payable ($150 × 2%)	3	
		Accounts Receivable ($1980 – $330)		1 650
		(Received payment from Ray Stevens within the discount period)		

From the seller's point of view, the purpose of offering cash discounts is to encourage early payment for the goods. The earlier payment may tend to reduce losses from uncollectable accounts receivable. To the buyer, taking advantage of the discount results in a favourable return for the use of the money, which can be shown by converting the discount rate to an annual rate. For example, with terms of 2/10, n/30 on a $300 invoice, the added cost of waiting 20 days to make payment at the end of the credit period is $6 ($300 × 2%). This is equivalent to an effective annual interest rate of 37.2%, i.e.

$$\underset{\boxed{\text{\$6 interest on \$294}}}{\frac{\$6}{\$294}} \times \underset{\boxed{\text{20 days out of 365 days}}}{\frac{365}{20}} \times 100\% = 37.2\%$$

Obviously, buyers would be keen to take advantage of discounts offered unless they have a more profitable use for the discount money forgone. Any discount received is recorded by the buyer in an account called Discount Received, which represents an item of income to the purchasing entity.

The ledger accounts after the general journal entries for all sales transactions with Ray Stevens have been posted appear as set out in figure 6.5. Follow each of the postings from the journal entries for Ray Stevens's transactions (beginning on p. 241) to the appropriate ledger account to appreciate the full double-entry effects of each transaction.

Figure 6.5 Accounts used for credit sales, after allowances and settlement discounts

Accounts Receivable

5/8	Sales/GST Payable	1 980	8/8	Sales Returns/GST Payable	330
			15/8	Cash at Bank/Discount Allowed/GST Payable	1 650

Cash at Bank

15/8	Accounts Receivable	1 617			

Discount Allowed

15/8	Accounts Receivable	30			

Sales

			5/8	Accounts Receivable	1 800

Sales Returns and Allowances

8/8	Accounts Receivable	300			

GST Payable

8/8	Accounts Receivable	30	5/8	Accounts Receivable	180
15/8	Accounts Receivable	3			

Trade discounts

A **trade discount** is a percentage reduction granted to a customer from the normal list price. In contrast to a cash discount, a trade discount is not related to early payment but is used in determining the actual invoice price to the customer. Trade discounts enable the business to print one price list but nevertheless vary prices in dealing with different customers.

Trade discounts are not recorded in the accounts by either the buyer or the seller, and are disclosed as reductions in the list price on the sales invoice. For example, assume that a wholesaler quotes a list price of $200 per item but grants a trade discount of 30% to retailers if they purchase in quantities of ten or more. The entry to record the sale of ten units is (assuming GST of 10%):

July	10	Accounts Receivable	1 540	
		Sales ($200 × 10 units × 70%)		1 400
		GST Payable		140
		(Sale of inventory on credit, subject to a 30% trade discount)		

The buyer records a purchase of inventory for the amount of $1400, and a GST receivable of $140. If included in the terms of the sale, a cash discount is calculated on the $1400 sales price less any subsequent returns or allowances.

Freight outwards

In the process of selling and buying goods (including exporting and importing), a variety of costs are incurred in moving the goods from the seller's place of business to that of the buyer. These costs include postage, freight, insurance and customs duty. They can be significant, and the issue of who bears the costs is important. The obligations of the seller and/or buyer in relation to these costs are stated on the invoice issued by the seller. Certain abbreviations used on invoices indicate which party bears the costs.

For the purposes of this text, two national and international standardised trade terms are used: **EXW**, which stands for 'ex works', and **DDP**, which stands for 'delivered duty paid'. If goods are sold 'EXW [named place of seller's business]', freight costs incurred from the point of shipment are paid by the buyer. If goods are sold 'DDP [named place of destination]', the seller bears all the costs of delivering the goods to the buyer. For example, 'EXW Sydney warehouse' means that the buyer pays freight costs from the supplier's warehouse in Sydney; 'DDP Brisbane head office' means that the supplier pays for the goods to be delivered to the buyer's head office in Brisbane.

When the terms of the sale are DDP, the seller normally records the payment of freight costs as a debit to a Freight Outwards account. **Freight outwards** is reported as a selling and distribution expense in the income statement. The expense is incurred after goods have been sold. Freight charges paid by the seller on goods sold should not be confused with freight charges incurred on goods purchased, which is discussed later in the chapter. Note that freight costs are normally subject to GST for retail businesses.

LEARNING CHECK

☐ Sales represent revenues that are credited to a sales account, and the corresponding debits are made to either the Cash at Bank account or Accounts Receivable account depending on the nature of the sale.

☐ If goods sold are subject to GST, then a GST Payable account is also credited for the amount of GST. The same account that was debited to record the sale is again debited.

☐ When returns and allowances are recorded, the entries made for the original sale are reversed, except that a Sales Returns and Allowances account is debited instead of the Sales account. This highlights the level of sales returns and allowances.

☐ A trade discount is deducted from the marked price of the goods before a sale (cash or credit), and a cash (settlement) discount arises only on a completed credit sale when payment is made within the predetermined discount period.

☐ The freight term EXW means that the buyer of the goods pays the freight costs, and the term DDP means that the seller pays for the delivery of the goods to the buyer.

6.4 Accounting for purchases and cost of sales

LO 4 Account for purchases of inventory and cost of sales under both the perpetual and periodic inventory systems by retail businesses.

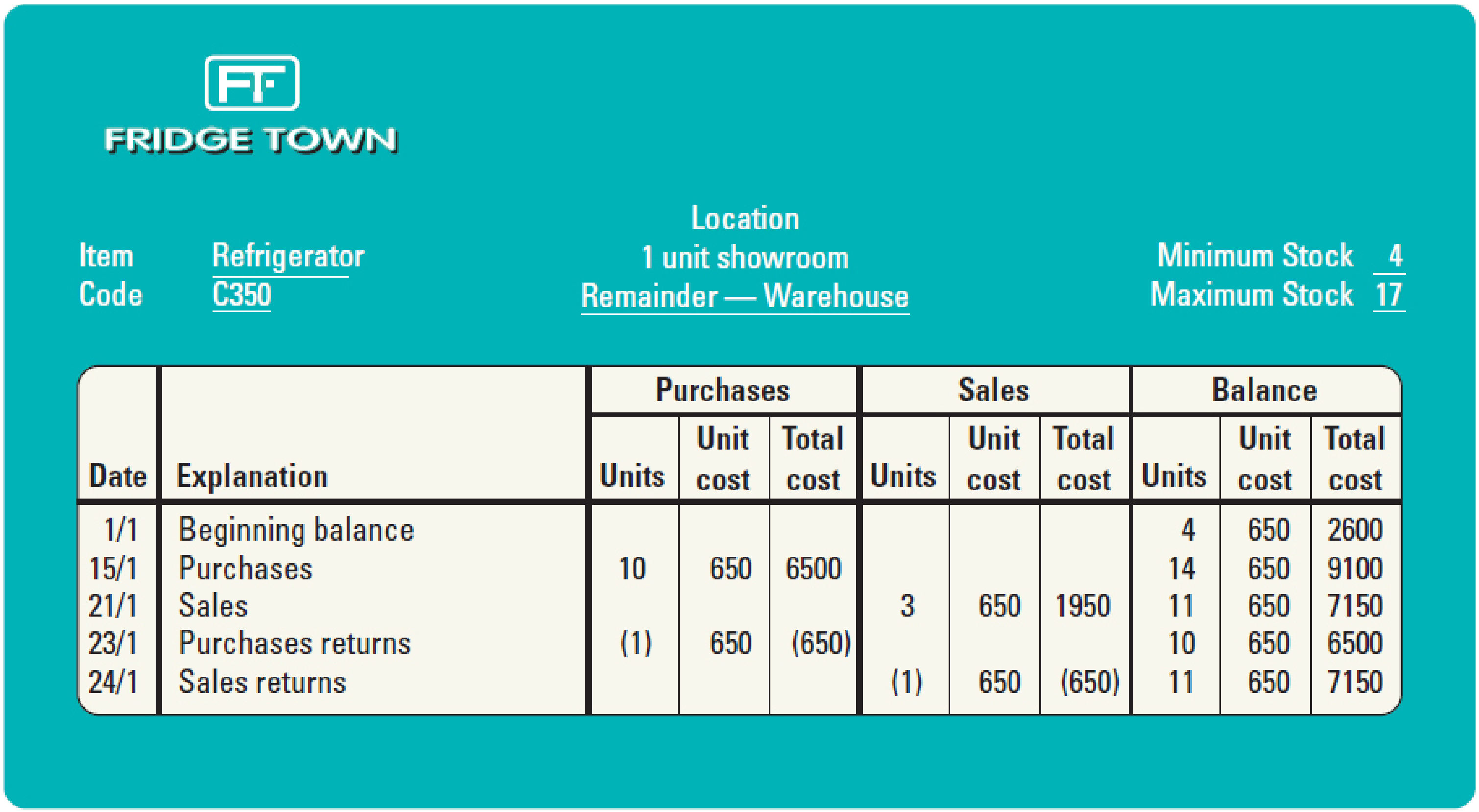
Accounting for inventories involves recording the cost of purchased inventories and being able, as the need arises, to determine which parts of the cost of inventories can be allocated to cost of sales and to an asset representing ending inventory on hand. Cost of sales must always be known in order to calculate gross profit, and ending inventory must be known in order to prepare a balance sheet.

Two distinctly different inventory systems, perpetual and periodic, can be used to determine the amounts reported for ending inventory and cost of sales. The system adopted by a business entity largely depends on the type of inventory held and the sophistication of the computer system used to keep records of inventory on hand. The perpetual inventory system has become more common especially for businesses using computerised inventory systems.

Perpetual inventory system

A **perpetual inventory system** involves keeping a current and continuous record of all inventory transactions on a separate computer record or inventory card for each type of inventory item held. Each record shows the quantity, unit cost and total cost for each purchase and each sale, and the inventory balance, as illustrated in figure 6.6. Note that the record is concerned only with recording unit and total ***costs***, even for the sales columns. The sales columns disclose ***cost*** of sales and the balance columns show ***cost*** of inventory on hand. When each item is different, as with vehicles that have different options and costs, a separate inventory record is maintained for each type of item. Figure 6.6 is an example of an inventory record for a certain type of refrigerator sold by Fridge Town. The total dollar value of all inventory held by the business on any given date is represented by an aggregate of all the balances of the individual detailed inventory records.

Figure 6.6 Inventory record



FF
FRIDGE TOWN

Item Refrigerator
Code C350

Location
1 unit showroom
Remainder — Warehouse

Minimum Stock 4
Maximum Stock 17

Date	Explanation	Purchases			Sales			Balance		
		Units	Unit cost	Total cost	Units	Unit cost	Total cost	Units	Unit cost	Total cost
1/1	Beginning balance							4	650	2600
15/1	Purchases	10	650	6500				14	650	9100
21/1	Sales				3	650	1950	11	650	7150
23/1	Purchases returns	(1)	650	(650)				10	650	6500
24/1	Sales returns				(1)	650	(650)	11	650	7150

A perpetual inventory system is commonly used in practice because it provides more timely information to managers for decisions relating to controlling and planning inventory. In the past, however, many businesses that sold a large number of items with a low unit cost found that the cost of maintaining a manual perpetual inventory system was prohibitive. So the perpetual inventory system was used more by businesses selling inventory of high unit value such as vehicles, airconditioning units, pianos and whitegoods.

However, with the introduction of ***computer-based inventory systems***, more and more businesses have found it feasible to use the perpetual inventory system for planning and controlling their investments in inventory. Most retail businesses now use optical-scan cash registers to read product bar codes. They not only record the sales price of the item but also enter the item sold for inventory purposes. The cash registers are, in effect, data input computer terminals entering transactions into the accounting and inventory records at the point of sale. Entities adopt the perpetual system because they believe the benefits obtained from detailed inventory records outweigh the cost of maintaining the system. Computer packages such as MYOB and QuickBooks also automatically track GST payable and GST receivable. They also facilitate the preparation of the business activity statement.

Illustration of a perpetual inventory system

In a retail business that uses the perpetual inventory system, a single account — Inventory — is maintained in the general ledger to record all inventory transactions. Supporting details are entered in individual inventory records for each type of inventory held. The balance in the general ledger account should equal the sum of the dollar amounts of balances shown on all the inventory records. Entries for inventory transactions are made to both the Inventory account and the appropriate inventory records. A purchase of inventory is entered as an increase and hence debited; as goods are sold, the cost of sales is entered as a decrease and hence credited. To determine the dollar cost of each sale, the accountant refers to the individual inventory record of the item sold. An item sold must therefore be identified so that the unit and related cost may be removed from the appropriate inventory record and the cost removed from the Inventory account in the general ledger.

To illustrate the entries required under a perpetual inventory system, assume that Fridge Town, which is registered for the GST, sells large electrical appliances. The entries that follow are based on the transactions shown on the inventory record illustrated in figure 6.6.

The Inventory account in the general ledger of Fridge Town at the beginning of the period in T-account form is:

Inventory

1/1	Bal. b/d (4 units @ $650)	2 600	

(In practice, the balance in this account would be much larger and would show the total cost of ***all*** types of appliances held at the beginning of the period rather than the cost of the refrigerators only.)

Entries to record the transactions for January for Fridge Town are presented on the following pages.

Transaction 1 Recording purchases on credit: Fridge Town purchased 10 refrigerators @ $650 per unit plus GST on credit from the manufacturer, Fridge King Ltd.

Jan.	15	Inventory	6 500	
		GST Receivable	650	
		Accounts Payable		7 150
		(Purchased 10 refrigerators at $650 plus GST per unit on credit from Fridge King Ltd. Terms 2/10, n/30. Invoice date: 15 Jan.)		

Since the business is registered for the GST, the asset account (Inventory) is debited for the cost of the goods excluding the GST, the GST Receivable account is debited for the GST included in the purchase, and the Accounts Payable account is credited for the total amount owing (purchase price plus GST). (The GST receivable represents an input credit that can be offset against the GST Payable account to reduce the GST payable to the Australian Taxation Office (ATO).) At the same time, the details of the purchase are entered in the relevant perpetual inventory record (net of GST) and a new balance for inventory is calculated (see figure 6.6 — transaction of 15/1).

Transaction 2 Recording freight costs: Fridge Town paid freight cost of $420 plus GST on inventory shipped EXW supplier's warehouse.

The cost of inventory includes the invoice price plus freight charges and other costs directly related to acquiring the goods net of any GST. If several different items are included on the one tax invoice, freight costs are listed separately on the invoice and are normally recorded in a **Freight Inwards** or **Transportation-in** account. This is done because it is difficult to allocate freight cost to individual units when several different inventory items are included in a single shipment. Furthermore, in most cases the allocation of freight cost would not significantly change the financial statements of the business. The entry by Fridge Town to record payment of the freight on 17 January is:

Jan.	17	Freight Inwards	420	
		GST Receivable	42	
		Cash at Bank		462
		(Paid freight cost on goods purchased EXW supplier's warehouse)		

Note that no entry for freight appears on the inventory record shown in figure 6.6. In the income statement of Fridge Town, the freight inwards for the period is generally added as a separate item in the cost of sales or is combined directly into the amount reported as the cost of sales. Under IAS 2/AASB 102, freight inwards should be included as part of the cost of inventories and hence cost of sales.

The business responsible for paying the freight cost is directed to pay the carrier under conditions set out on the invoice. Goods can be shipped ‘freight collect’ when the terms are EXW and ‘freight prepaid’ when the terms are DDP destination. As a matter of convenience, the business not responsible for the freight costs may be directed to pay the costs on behalf of the other. When this happens, the seller and the buyer will make the necessary adjustment when receiving or paying for the goods.

To illustrate the impact of freight charges, assume Brisbane Lighting Co. Ltd sells $1000 worth of goods plus GST on credit to Sydney Supply Co. Ltd on terms EXW, 2/10, n/30, but the freight charges of $100 plus GST are paid by Brisbane Lighting Co. Ltd. (Note that under the terms of shipping, freight cost is to be borne ultimately by Sydney Supply Co. Ltd.) Brisbane Lighting Co. Ltd will add the freight cost to the invoice price, invoicing the goods at a total GST-inclusive cost of $1210. In the accounting records of Sydney Supply Co. Ltd, the freight cost and the GST are separated out and $100 recorded as freight inwards.

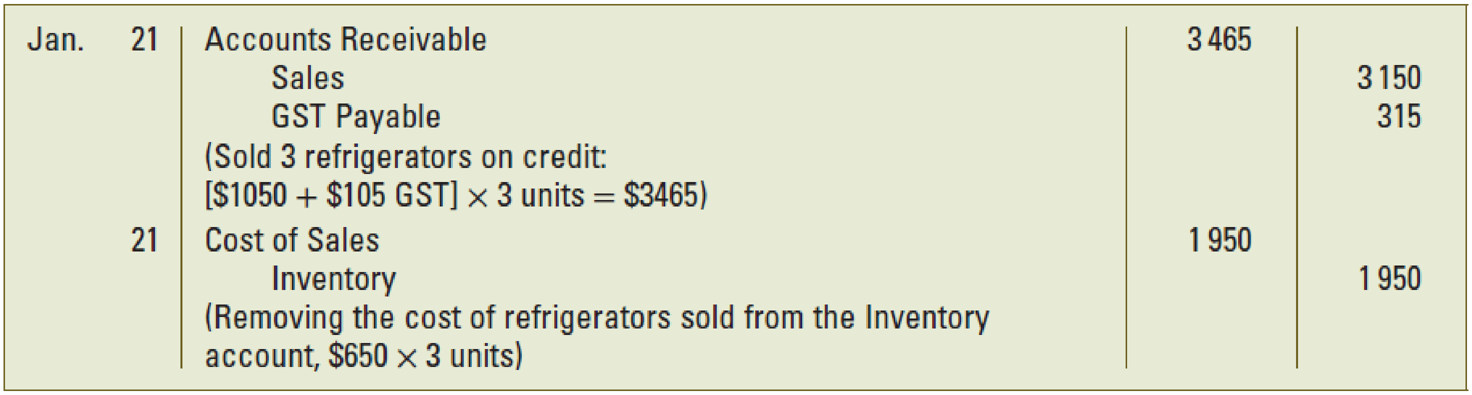
In these circumstances, the buyer is not entitled to claim discount on the full $1210 as this amount includes $110 in freight cost and GST thereon. If Sydney Supply Co. Ltd paid for the goods within the discount period, the amount to be paid would be:

Invoice amount ($1100 + $110 freight)	$1 210
Less: Discount received (2% of $1000)	20
GST receivable (2% of $100)	2
Amount paid	$1 188

If the terms were DDP (seller normally pays) but the buyer paid the freight cost initially to the carrier on a separate tax invoice, the buyer deducts the amount of freight when paying for the goods. Using the above figures, except that the freight cost of $100 + $10 GST was paid by Sydney Supply Co. Ltd, the amount to be forwarded by the business if paying within the discount period is:

Invoice amount (excluding freight)	$1
Less: Discount received (2% of $1000)	100
GST receivable (2% of $100)	20
	2
	1 078
Less: Freight and GST paid to carrier on behalf of Brisbane Lighting Co. Ltd	110
	$ 968
Amount paid to Brisbane Lighting Co. Ltd	

Transaction 3 Recording sales on credit: Fridge Town sold 3 refrigerators for $1050 per unit plus GST on credit; cost $650 per unit.



Jan.	21	Accounts Receivable	3 465	
		Sales		3 150
		GST Payable		315
		(Sold 3 refrigerators on credit: [$1050 + $105 GST] × 3 units = $3465)		
	21	Cost of Sales	1 950	
		Inventory		1 950
		(Removing the cost of refrigerators sold from the Inventory account, $650 × 3 units)		

When a perpetual inventory system is used, each sale requires two entries. One entry records the revenue from the sale. A second entry records the cost of the items sold as a debit in the Cost of Sales account and reduces the Inventory account, which is credited. Thus, reductions are made to the Inventory account and to the individual inventory record each time a sale occurs. Note carefully that the sales entry is based on the sales price amount, whereas the amount of the inventory entry is based on the total cost of the units sold as shown on the inventory record (see figure 6.6 — transaction of 21/1).

Transaction 4 Recording purchases returns: Fridge Town returned to the manufacturer, Fridge King Ltd, a defective unit, which cost $650 + $65 GST.

Jan.	23	Accounts Payable	715	
		Inventory		650
		GST Receivable		65
		(Defective unit returned to Fridge King Ltd for credit on account)		

When the buyer and seller agree that an item is to be returned for credit, the buyer's Inventory account and the inventory record are both reduced to show that the item is no longer being held, as illustrated in figure 6.6 — transaction of 23/1. Note that on the inventory record the item returned is shown as a negative item in the 'Purchases' columns. The GST of $65 is written back against the GST Receivable previously debited when the unit was purchased. This reduces the amount of the input credit that can be claimed against GST Payable.

Transaction 5 Recording payment of creditors within discount period: Fridge Town paid for purchases made on 15 January within the discount period, after purchases returns on 23 January.

Accounting for discount allowed by the seller and the notation (2/10, n/30) used to describe the credit terms have already been discussed. Recall that a cash discount entitles the buyer to deduct a specified amount from the invoice price if payment is made within a specified time period. As is the case when discount is allowed to a customer, the GST included in the amount of the reduction for prompt payment of the total debt must be adjusted and written back to the GST Receivable account. In this case, the reduction for prompt payment is $129 (2% × [$7150 − $715 return]). Of this amount, $117 ($129 × 10/11) is allocated to a reduction in the amount owing, and $12 ($129 × 1/11) to GST adjustment.

The entry to record the payment made by Fridge Town within the discount period is:

Jan.	24	Accounts Payable ($7150 – $715)	6 435	
		Cash at Bank		6 306
		Discount Received ($6435 × 2% × $^{10}/_{11}$)		117
		GST Receivable ($6435 × 2% × $^{1}/_{11}$)		12
		(Paid for inventory purchased on 15 Jan.)		

Note that returns were deducted to determine the amount subject to adjustment for discount and the GST. If the payment was not made within the discount period, the credit to Cash at Bank in the entry would be for $6435. The Discount Received account has a credit balance, and is deducted from cost of sales in the income statement. Note that this transaction has no impact on the inventory record shown in figure 6.6.

Transaction 6 Recording sales returns and allowances: A refrigerator that was sold by Fridge Town on 21 January for $1050 plus GST is returned by a customer for credit. The unit cost $650.

Jan.	24	Sales Returns and Allowances	1 050	
		GST Payable	105	
		Accounts Receivable		1 155
		(A refrigerator sold on 21 Jan. was returned by customer)		
	24	Inventory	650	
		Cost of Sales		650
		(Returned refrigerator was placed back in inventory)		

An item returned by a customer also requires two entries in order to reverse the effects of the two entries made to record the original sale. The first entry records the sales return. Because it is assumed that the unit is still suitable for sale, a second entry is necessary to eliminate the cost of sales previously recorded and restore the unit to the Inventory account. Note that the first entry is based on the original sales price of $1050 plus GST, whereas in the second entry the inventory is recorded only at its cost, $650. The unit returned is also entered on the inventory record (see figure 6.6 — transaction of 24/1) by recording it as a negative item in the 'Sales' columns for its cost price, $650.

If the inventory returned was unfit for resale, the debit to Inventory in the second journal entry above would be replaced by a debit to Inventory Loss or some other similar expense account.

The ledger accounts for Fridge Town after the above general journal entries for a perpetual inventory system have been posted appear in figure 6.7 (p. 249). For each general journal entry, follow each of the postings to the appropriate ledger account to appreciate the full double-entry effects of each transaction.

Figure 6.7 Ledger of Fridge Town, showing January purchases and sales — perpetual inventory system

Perpetual Inventory System

LEDGER OF FRIDGE TOWN

Accounts Receivable

21/1	Sales/GST Payable	3 465	24/1	Sales Returns/GST Payable	1 155

Accounts Payable

23/1	Inventory/GST Receivable	715	15/1	Inventory/GST Receivable	7 150
24/1	Cash at Bank/Discount Received/GST Receivable	6 435			

Cash at Bank

			17/1	Freight Inwards/GST Receivable	462
			24/1	Accounts Payable	6 306

Cost of Sales

21/1	Inventory	1 950	24/1	Inventory (Return)	650

Sales

			21/1	Accounts Receivable	3 150

Freight Inwards

17/1	Cash at Bank	420			

GST Payable

24/1	Accounts Receivable	105	21/1	Accounts Receivable	315

GST Receivable

15/1	Accounts Payable	650	23/1	Accounts Payable (Return)	65
17/1	Cash at Bank	42	24/1	Accounts Payable	12

Inventory

1/1	Balance	2 600	21/1	Cost of Sales	1 950
15/1	Accounts Payable	6 500	23/1	Accounts Payable	650
24/1	Cost of Sales (Return)	650			

Discount Received

			24/1	Accounts Payable	117

Sales Returns and Allowances

24/1	Accounts Receivable	1 050			

Note that the balance in the Inventory account in figure 6.7 agrees with the balance on the inventory record (see figure 6.6). All amounts recorded in the Inventory account exclude GST. By maintaining a continuous inventory record, it is not necessary to take a physical count of the inventory on hand to determine an inventory balance. Entities using a perpetual inventory system nevertheless must undertake a physical inventory count at least once a year to verify the accuracy of the inventory records. A **physical inventory count** or **stocktake** involves (1) counting all inventory units on hand, (2) determining the unit cost of items in stock from purchase invoices, and (3) multiplying unit cost by units of inventory to determine the total cost of inventory. In a computerised inventory system, once the items have been counted and entered into the system, the computer performs all of the calculations to determine cost.

Differences between the physical count and inventory records can result from clerical error, theft of goods, breakage and obsolescence. Causes of large discrepancies should be identified and eliminated if at all possible. In some cases, the difference may result from natural causes such as evaporation or shrinkage. Performing a stocktake is discussed in more detail in a later chapter.

At the end of the year, if the physical inventory and the Inventory account balances differ, a journal entry is made to bring the account balance into agreement with the physical count. Assuming that the physical inventory showed that the cost of inventory on hand was $5850, the entry to reduce the Inventory account by $1300 is:

Dec.	31	Inventory Shortage Expense	1 300	
		Inventory		1 300
		(Adjusting the Inventory account to the physical count)		

The Inventory Shortage Expense account is for management information only. Normally the account is included with the cost of sales in the income statement. This will result in the same cost of sales if the periodic inventory system is used.

Periodic inventory system

Businesses that sell a large number of low-cost items often find the maintenance of perpetual inventory records for all types of inventory too costly and time-consuming to be practical, unless they have access to a computerised inventory system. Such businesses include fruit shops, newsagents, butchers and coffee shops. A store operating with high volume may conveniently record the amount of each sale, but would find it difficult to trace the cost of each item sold back to detailed inventory records. Entities that do not use a perpetual inventory system use a **periodic inventory system**.

Illustration of a periodic inventory system

In a periodic inventory system, the beginning balance in the Inventory account does not change until the end of the accounting period. The costs of additional inventory purchased during a period are recorded in a Purchases account rather than in the Inventory account. When inventory is sold, only one entry is made and that is to record the sales at selling price. Since no record of the particular goods sold is maintained during the period, it is necessary to physically count the units on hand and multiply the number of units by the cost per unit to determine the cost of inventory on hand. Once this is completed, the cost of sales is calculated as:

Cost of beginning inventory	$2
Add: Net cost of goods purchased during the	600
current period	6
Cost of goods available for sale	153*
Less: Cost of ending inventory (from physical	8
stocktake)	753
Cost of salse	5
*($6500 + $420 freight − $650 returns − $117	850
discount received)	$2
	903

The **ending inventory** for the current period becomes the **beginning inventory** for the following period. The process of adjusting the Inventory account to its end-of-year balance is discussed later in this chapter.

Figure 6.8 Cost of sales (periodic inventory system)

Note: If A, B and D are known, C can be calculated.

A periodic inventory system is illustrated using the same data for Fridge Town in the perpetual inventory system above, so that you can compare the two systems. In practice, remember, the periodic system is used when large volumes of low-priced items are sold. Note that no detailed inventory records (as illustrated in figure 6.6) are maintained. The Inventory account at the beginning of the period for Fridge Town is:

Inventory

1/1	Bal. b/d (4 units @ $650)	2 600	

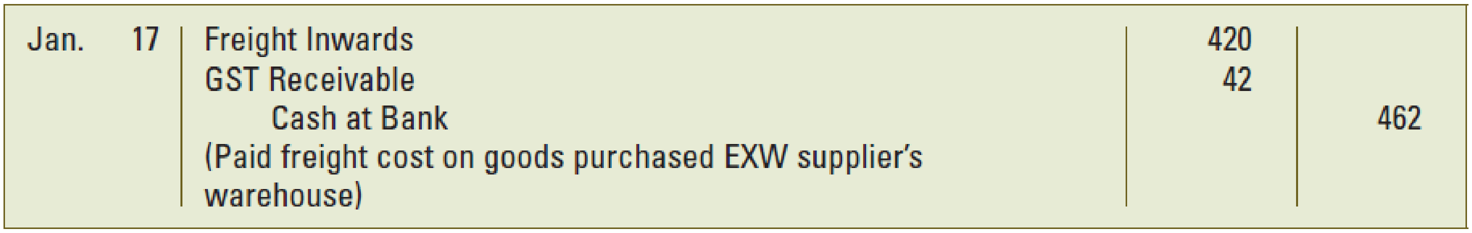
The beginning inventory of $2600 is the ending inventory of the previous period established by a physical stocktake conducted on the last day of the preceding period.

Transaction 1 Recording purchases on credit: Fridge Town purchased 10 refrigerators @ $650 per unit plus GST on credit from the manufacturer, Fridge King Ltd.

Jan.	15	Purchases	6 500	
		GST Receivable	650	
		Accounts Payable		7 150
		(Purchased 10 refrigerators at $650 plus GST per unit on credit from Fridge King Ltd. Terms 2/10, n/30. Invoice date: 15 Jan.)		

The **Purchases** account is a temporary account used to accumulate the cost (excluding GST) of all merchandise acquired for resale during the period. This account is used to record only inventory purchases. Other acquisitions of assets, e.g. equipment, are recorded in appropriate asset accounts. Because the balance is closed at the end of each accounting period, the account balance reflects the total purchases to date for the current period.

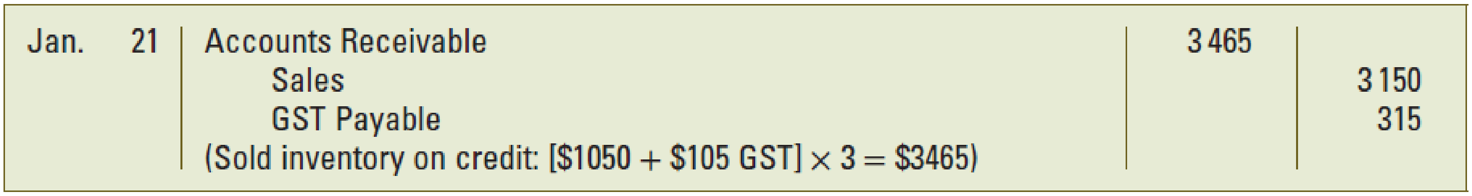
Transaction 2 Recording freight costs: Fridge Town paid freight cost of $420 plus GST on inventory purchased EXW supplier's warehouse.



Jan.	17	Freight Inwards	420	
		GST Receivable	42	
		Cash at Bank		462
		(Paid freight cost on goods purchased EXW supplier's warehouse)		

Freight inwards is reported as an additional cost of purchases, as is required under IAS 2/AASB 102.

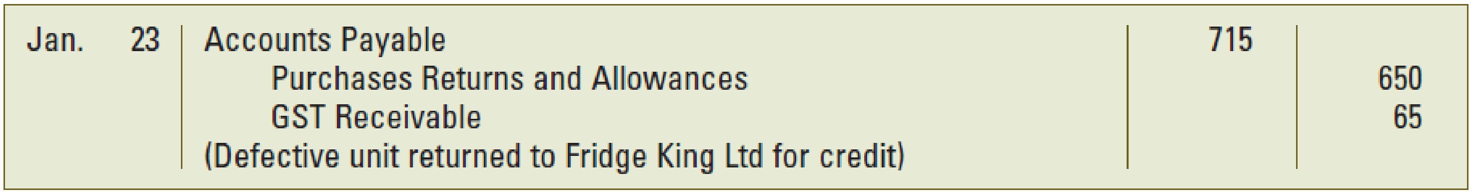
Transaction 3 Recording sales on credit: Fridge Town sold 3 refrigerators for $1050 per unit plus GST on credit.



Jan.	21	Accounts Receivable	3 465	
		Sales		3 150
		GST Payable		315
		(Sold inventory on credit: [$1050 + $105 GST] × 3 = $3465)		

At the time of sale, only one entry is made to record the sale. A second entry is not made to record the cost of sales as is the case in the perpetual inventory system.

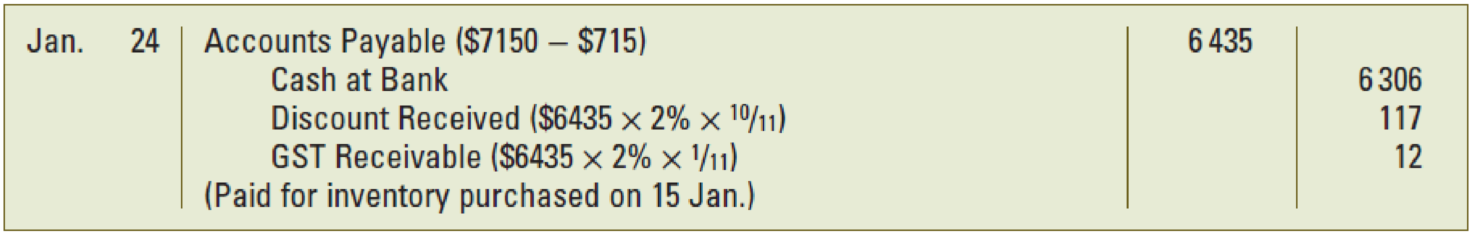
Transaction 4 Recording purchases returns: Fridge Town returned to the manufacturer, Fridge King Ltd, a defective unit, which cost $650 + $65 GST.



Jan.	23	Accounts Payable	715	
		Purchases Returns and Allowances		650
		GST Receivable		65
		(Defective unit returned to Fridge King Ltd for credit)		

There is a cost to the business to order merchandise, receive and inspect the merchandise, and to repack it for return to the seller. To provide relevant information to management concerning the total amount of goods returned, the return is recorded in a contra purchases account, **Purchases Returns and Allowances** (net of GST), rather than directly as a credit to the Purchases account. The entry is the same if the goods are kept by the buyer and a downward adjustment or allowance is made to the invoice cost.

Transaction 5 Recording payment of creditors within discount period: Fridge Town paid for purchases made on 15 January within the discount period, after purchases returns on 23 January.



Jan.	24	Accounts Payable ($7150 – $715)	6 435	
		Cash at Bank		6 306
		Discount Received ($6435 × 2% × $^{10}/_{11}$)		117
		GST Receivable ($6435 × 2% × $^{1}/_{11}$)		12
		(Paid for inventory purchased on 15 Jan.)		

Note that this entry is the same as the one made under the perpetual inventory system. Furthermore, discounts received are reported as a reduction of cost of sales, as in the perpetual system.

Transaction 6 Recording sales returns and allowances: A refrigerator that was sold by Fridge Town on 21 January for $1050 plus GST is returned by a customer for credit.

Jan.	24	Sales Returns and Allowances	1 050	
		GST Payable	105	
		Accounts Receivable		1 155
		(A refrigerator sold on 21 Jan. was returned by customer)		

When a periodic inventory system is used, only one entry is needed to record the merchandise returned. A second entry, to reverse the cost of sales, is not needed here because the cost of sales was not recorded on the date of sale.

The ledger accounts after the above general journal entries for a periodic inventory system have been posted appear as set out in figure 6.9 (p. 253). For each general journal entry, follow each of the postings to the appropriate ledger account to appreciate the full double-entry effects of each transaction.

Figure 6.9 Ledger of Fridge Town, showing January purchases and sales — periodic inventory system

Periodic Inventory System

LEDGER OF FRIDGE TOWN

Accounts Receivable

21/1	Sales/GST Payable	3 465	24/1	Sales Returns/GST Payable	1 155

Accounts Payable

23/1	Purchases Returns/ GST Receivable	715	15/1	Purchases/GST Receivable	7 150
24/1	Cash at Bank/Discount Received/GST Receivable	6 435			

Cash at Bank

			17/1	Freight Inwards/GST Receivable	462
			24/1	Accounts Payable	6 306

Purchases Returns and Allowances

			24/1	Accounts Payable	650

Sales

			21/1	Accounts Receivable	3 150

Freight Inwards

17/1	Cash at Bank	420			

GST Payable

24/1	Accounts Receivable	105	21/1	Accounts Receivable	315

24/1	Accounts Receivable	105	21/1	Accounts Receivable	315

GST Receivable

15/1	Accounts Payable	650	23/1	Accounts Payable (Return)	65
17/1	Cash at Bank	42	24/1	Accounts Payable	12

Purchases

15/1	Accounts Payable	6 500			

Discount Received

			24/1	Accounts Payable	117

Sales Returns and Allowances

24/1	Accounts Receivable	1 050			

Perpetual and periodic inventory systems contrasted

The basic differences between the perpetual and periodic inventory systems for Fridge Town are illustrated by the entries shown in figure 6.10 (p. 254). First, under the perpetual inventory system the balance in the Inventory account provides a continuous and current record of inventory on hand. Second, a perpetual system provides for an accumulation of the cost of sales during the period. In contrast, a physical stocktake must be taken to determine the inventory on hand and the cost of sales when a periodic inventory system is used. A physical inventory count is taken under the perpetual system only to verify the accuracy of the recorded ending inventory. Note also that a Purchases account is used in a periodic inventory system, whereas a Cost of Sales account is maintained with a perpetual inventory system.

Figure 6.10 Comparison of entries to record inventory transactions under the perpetual and periodic inventory systems

Data:	Cost per unit	$ 650
	Selling price per unit	$1050 (plus GST of 10%)
	Beginning inventory	4 units

Perpetual Inventory System			Periodic Inventory System		

FRIDGE TOWN

Inventory account — beginning of the period

Inventory			Inventory		
4 units	2 600		4 units	2 600	

1. Purchased 10 units of merchandise on credit. Terms 2/10, n/30; EXW warehouse.

Inventory (10 × $650)	6 500		Purchases	6 500	
GST Receivable	650		GST Receivable	650	
Accounts Payable		7 150	Accounts Payable		7 150

2. Paid freight cost.					
Freight Inwards	420		Freight Inwards	420	
GST Receivable	42		GST Receivable	42	
Cash at Bank		462	Cash at Bank		462
3. Sold 3 units to customers on credit.					
Accounts Receivable	3 465		Accounts Receivable	3 465	
Sales (3 × $1050)		3 150	Sales		3 150
GST Payable		315	GST Payable		315
Cost of Sales	1 950				
Inventory (3 × $650)		1 950			
4. Returned 1 unit to the supplier for credit on account.					
Accounts Payable	715		Accounts Payable	715	
Inventory (1 × $650)		650	Purchases Returns and Allowances		650
GST Receivable		65	GST Receivable		65
5. Paid for purchases within discount period.					
Accounts Payable	6 435		Accounts Payable	6 435	
Cash at Bank		6 306	Cash at Bank		6 306
Discount Received		117	Discount Received		117
GST Receivable		12	GST Receivable		12
6. Customer returned 1 unit for credit on account.					
Sales Returns and Allowances	1 050		Sales Returns and Allowances	1 050	
GST Payable	105		GST Payable	105	
Accounts Receivable		1 155	Accounts Receivable		1 155
Inventory (1 × $650)	650				
Cost of Sales		650			

Inventory account — end of the period

Inventory

1/1	Balance b/d	2 600	21/1	Cost of Sales	1 950
15/1	Accounts Payable	6 500	24/1	Accounts Payable	650
24/1	Cost of Sales	650		Balance c/d	7 150
		9 750			9 750

Inventory

Balance b/d	2 600		

It is also instructive to compare the general ledger accounts under the two systems illustrated in figures 6.7 and 6.9.

Based on the six transactions recorded in figure 6.10, income statements are prepared in figure 6.11 for both systems. It is assumed that a physical stocktake taken at the end of the period confirmed that 11 units were on hand. The dollar amount is calculated to be $7150 (11 units × $650). Note that the net sales, cost of sales and gross profit are the same in both statements.

Figure 6.11 Partial income statements, perpetual and periodic inventory systems

FRIDGE TOWN
Income Statement
for the month ended 31 January

Perpetual Inventory System

Sales revenue	$3 150
Less: Sales returns and allowances	1 050
Net sales revenue	2 100
Cost of sales*	1 603
GROSS PROFIT	$ 497

*$1603 = $1950 − $650 + $420 − $117
Freight inwards and discount received are combined with cost of sales.

Periodic Inventory System

Sales revenue			$3 150
Less: Sales returns and allowances			1 050
Net sales revenue			2 100
Cost of sales:			
Cost of beginning inventory		$2 600	
Add: Cost of purchases	$6 500		
Freight inwards	420		
	6 920		
Less: Purchases returns and allowances	650		
Discount received	117		
Cost of net purchases		6 153	
Cost of goods available for sale		8 753	
Less: Cost of ending inventory		7 150	
Cost of sales			1 603
GROSS PROFIT			$ 497

Some relationships shown in statement format for the ***periodic*** inventory system are summarised below:

1. Net sales revenue = Sales revenue − Sales returns and allowances − Discount allowed
2. Gross profit = Net sales revenue − Cost of sales
3. Cost of sales = Cost of beginning inventory + Cost of net purchases − Cost of ending inventory
4. Cost of net purchases = Cost of purchases + Freight inwards − Purchases returns and allowances − Discount received

Familiarity with these relationships will help you to understand the characteristics of the periodic inventory system and make it easier for you to determine the effect of inventory errors.

Under the periodic inventory system, the cost of sales is a residual amount after deducting the ending inventory from the cost of all goods available for sale. As a result, losses of inventory from causes such as theft, shrinkage, breakage and clerical error are difficult to identify. Techniques used to determine any large inventory losses are examined in a later chapter.

BUSINESS KNOWLEDGE

Despite fall, Noni B good

Noni B is confident of an earnings turnaround and will continue to open new stores, despite a weaker first-half profit amid aggressive discounting in the retail sector.

The women's retail fashion group yesterday reported a net profit of $1.9 million for the first half of its financial year to December 31, down from $2.4 m in the previous corresponding first half.

Noni B opened a new store each in Sydney, Melbourne, Brisbane, and Perth in December and closed one unprofitable store. Joint managing director David Kindl said greater revenues would be recorded as the stores notched up sales.

'While the costs were in the first quarter, the majority of the contribution will be in the second quarter and we're looking forward to those stores trading well,' he said.

'We're also focusing on the profitability of each store ... We keep closing those that aren't performing, and we keep looking for new opportunities in areas where we're not represented, at rental terms that work for us.'

A store opened in Dapto in NSW on Tuesday, and two more were planned for Baulkam Hills in Sydney and regional Victoria.

Mr Kindl said there were signs that demand was recovering, which would return the company to growth in the next period. He attributed part of the lower earnings to aggressive discounting across the retail sector.

'We need to have smart promotions every year that give value to the customer while at the same time preserving the margin that we have built in,' Mr Kindl said.

'If you keep your inventory and expenses under control, then your reliance on discounting falls, and we still believe great service and a great product will beat discounting in the long run.'

Source: AAP 2013, 'Despite fall, Noni B good', ***The Australian***, 14 February.

LEARNING CHECK

- ☐ Cost of sales is a measure of the cost of the inventory sold during the accounting period, and is deducted from net sales revenue in the income statement to arrive at gross profit.
- ☐ A perpetual inventory system involves keeping a continuous and detailed record of the goods on hand and the cost of sales as goods are purchased and sold.
- ☐ In a periodic inventory system, the ending inventory is determined by a physical count at the end of the period and the cost of sales is equal to the beginning inventory plus net purchases less ending inventory.

6.5 End of period processes

LO 5 Prepare worksheets and close the accounts for retail businesses for both the perpetual and periodic inventory systems.

Illustration of worksheets in retail businesses

At the end of the accounting period, after all the year's transactions have been posted to the ledger, a worksheet can be used to organise the information needed to prepare financial statements and closing entries. Worksheets for a perpetual and a periodic inventory system are presented in figures 6.12 and 6.13 for The Fashion Shop Ltd. In practice, however, it is most likely that The Fashion Shop Ltd would use a perpetual inventory system.

In both figures 6.12 and 6.13, the first two columns (unadjusted trial balance) contain a listing of the account balances taken from the general ledger of the company. For simplicity, the various types of selling and administrative expense accounts have been combined into one item for each category.

Figure 6.12 Worksheet based on perpetual inventory system

THE FASHION SHOP LTD
Worksheet
for the year ended 31 December 2016

Account	Unadjusted trial balance		Adjustments		Adjusted trial balance		Income statement		Balance sheet	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	50 170				50 170				50 170	
Accounts Receivable	98 710				98 710				98 710	
Inventory	53 260				53 260				53 260	
Prepaid Insurance	1 910			(d) 610	1 300				1 300	
GST Receivable	63 200				63 200				63 200	
Store Equipment	72 000				72 000				72 000	
Accumulated Depreciation – Store Equipment		46 600		(b) 7 600		54 200				54 200
Office Equipment	26 400				26 400				26 400	
Accumulated Depreciation – Office Equipment		13 300		(c) 3 200		16 500				16 500
Accounts Payable		107 610				107 610				107 610
GST Payable		69 200				69 200				69 200
Share Capital		50 000				50 000				50 000
Retained Earnings		20 000				20 000				20 000
Sales		714 280				714 280		714 280		
Sales Returns and Allowances	21 390				21 390		21 390			
Discount Allowed	3 260				3 260		3 260			
Rent Revenue		2 400				2 400		2 400		
Cost of Sales	464 280				464 280		464 280			
Freight Inwards	6 210				6 210		6 210			
Discount Received		2 860				2 860		2 860		
Selling and Distribution Expenses	90 470		(a) 2 200 (b) 7 600		100 270		100 270			
Administrative Expenses	73 990		(a) 1 050 (c) 3 200 (d) 610		78 850		78 850			
Interest Expense	1 000				1 000		1 000			
	1 026 250	1 026 250								
Salaries Payable				(a) 3 250		3 250				3 250
Income Tax Expense			(e)10 470		10 470		10 470			
Current Tax Liability				(e) 10 470		10 470				10 470
			25 130	25 130	1 050 770	1 050 770	685 730	719 540	365 040	331 230
Profit							33 810			33 810
							719 540	719 540	365 040	365 040

Figure 6.13 Worksheet based on periodic inventory system

THE FASHION SHOP LTD
Worksheet
for the year ended 31 December 2016

Account	Unadjusted trial balance Debit	Unadjusted trial balance Credit	Adjustments Debit	Adjustments Credit	Adjusted trial balance Debit	Adjusted trial balance Credit	Income statement Debit	Income statement Credit	Balance sheet Debit	Balance sheet Credit
Cash at Bank	50 170				50 170				50 170	
Accounts Receivable	98 710				98 710				98 710	
Inventory	58 400				58 400		58 400	53 260	53 260	
Prepaid Insurance	1 910			(d) 610	1 300				1 300	
GST Receivable	63 200				63 200				63 200	
Store Equipment	72 000				72 000				72 000	
Accumulated Depreciation – Store Equipment		46 600		(b) 7 600		54 200				54 200
Office Equipment	26 400				26 400				26 400	
Accumulated Depreciation – Office Equipment		13 300		(c) 3 200		16 500				16 500
Accounts Payable		107 610				107 610				107 610
GST Payable		69 200				69 200				69 200
Share Capital		50 000				50 000				50 000
Retained Earnings		20 000				20 000				20 000
Sales		714 280				714 280		714 280		
Sales Returns and Allowances	21 390				21 390		21 390			
Discount Allowed	3 260				3 260		3 260			
Rent Revenue		2 400				2 400		2 400		
Purchases	472 620				472 620		472 620			
Freight Inwards	6 210				6 210		6 210			
Purchases Returns and Allowances		13 480				13 480		13 480		
Discount Received		2 860				2 860		2 860		
Selling and Distribution Expenses	90 470		(a) 2 200 (b) 7 600		100 270		100 270			
Administrative Expenses	73 990		(a) 1 050 (c) 3 200 (d) 610		78 850		78 850			
Interest Expense	1 000				1 000		1 000			
	1 039 730	1 039 730								
Salaries Payable				(a) 3 250		3 250				3 250
Income Tax Expense			(e) 10 470		10 470		10 470			
Current Tax Liability				(e) 10 470		10 470				10 470
			25 130	25 130	1 064 250	1 064 250	752 470	786 280	365 040	331 230
Profit							33 810			33 810
							786 280	786 280	365 040	365 040

The adjustments columns are for the end-of-year adjustments based on the following information:

(a) Accrued salaries: Sales	$ 2 200
Administrative	1 050
(b) Depreciation of store equipment	7 600
(c) Depreciation of office equipment	3 200
(d) Prepaid insurance expired during the year	610
(e) Income tax expense for the current period	10 470

Based on a physical inventory taken on 31 December each year, the ending inventory was determined to be $53 260 at the end of the current period and was $58 400 at the end of the previous period.

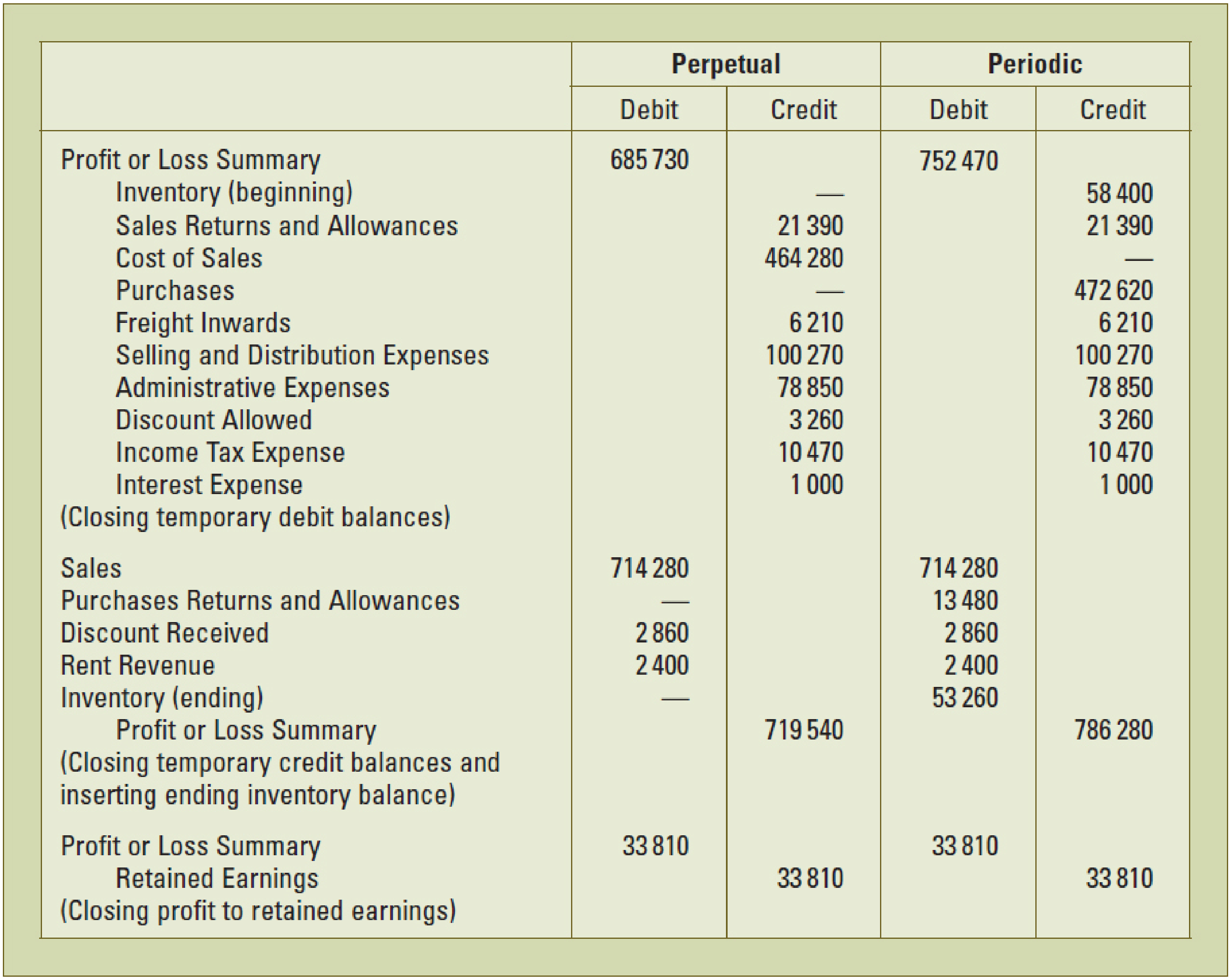
The worksheets (in figures 6.12 and 6.13) prepared for a business organised as a company are essentially the same as the one illustrated in chapter 4 for a sole trader. In the trial balance columns there are new equity accounts — Share Capital ($50 000 credit) and Retained Earnings ($20 000 credit) — that appear in place of the owner’s Capital account. These new accounts are extended to the appropriate balance sheet columns. In addition, the income tax expense for The Fashion Shop Ltd is calculated to be $10 470 in respect of the year ended 31 December 2016. This requires payment in the following period to the ATO, but is an expense of doing business in the current period. Hence, an adjusting entry [entry (e)] is made in the adjustments column to debit Income Tax Expense and to credit the Current Tax Liability account. The Income Tax Expense account is extended to the income statement debit column, and the Current Tax Liability is extended to the balance sheet credit column to be reported as a current liability. Note that GST Payable represents the amount of GST collected on behalf of the ATO. After the total of GST Receivable is offset against this amount (as GST input credits), the net amount is payable to the ATO when the next business activity statement is lodged.

Perpetual inventory system

Referring to the worksheet in figure 6.12, when a perpetual inventory system is used to account for the flow of goods, the balance in the Inventory account is the ending inventory amount. This balance is extended to the balance sheet debit column. The cost of sales, freight inwards and discounts received are extended along with the other temporary accounts to the proper income statement columns. The rest of the worksheet is completed in the manner illustrated in chapter 4. In a computerised system, such a worksheet can be prepared using an appropriate spreadsheet package, or preparation of worksheets may be avoided completely.

Closing entries based on the income statement columns are presented in figure 6.14 (p. 259). Except for the new accounts introduced in this chapter, the closing process for a retail business is similar to that illustrated for a service business. For comparison purposes, the closing entries based on the periodic inventory system are also shown.

Figure 6.14 Closing entries, perpetual and periodic inventory systems



	Perpetual		Periodic	
	Debit	Credit	Debit	Credit
Profit or Loss Summary	685 730		752 470	
Inventory (beginning)		—		58 400
Sales Returns and Allowances		21 390		21 390
Cost of Sales		464 280		—
Purchases		—		472 620
Freight Inwards		6 210		6 210
Selling and Distribution Expenses		100 270		100 270
Administrative Expenses		78 850		78 850
Discount Allowed		3 260		3 260
Income Tax Expense		10 470		10 470
Interest Expense		1 000		1 000
(Closing temporary debit balances)				
Sales	714 280		714 280	
Purchases Returns and Allowances	—		13 480	
Discount Received	2 860		2 860	
Rent Revenue	2 400		2 400	
Inventory (ending)	—		53 260	
Profit or Loss Summary		719 540		786 280
(Closing temporary credit balances and inserting ending inventory balance)				
Profit or Loss Summary	33 810		33 810	
Retained Earnings		33 810		33 810
(Closing profit to retained earnings)				

Periodic inventory system

Under a periodic inventory system (see worksheet in figure 6.13), the inventory balance of $58 400 listed in the unadjusted trial balance debit column is the beginning inventory amount. This amount is extended to the income statement debit column because it is added to the cost of net purchases to determine the cost of goods available for sale. The accounts that affect the cost of net purchases — Purchases, Purchases Returns and Allowances, Discount Received, and Freight Inwards — are also extended to the income statement columns. The ending inventory of $53 260 is entered directly in the income statement credit column since it is a deduction from the cost of goods available for sale when calculating the cost of sales. The amount is also entered in the balance sheet debit column because the ending inventory is an asset, and because it is necessary to enter an equal debit to maintain the equality of debits and credits in the worksheet.

At the end of the period, it is necessary to remove the beginning inventory balance and record the ending inventory in the Inventory account. There are several ways of doing this, and each method produces the same cost of sales amount. The approach adopted in this text is to adjust the Inventory account during the closing process at the same time the other income statement accounts are closed. This approach is illustrated in figure 6.14 for The Fashion Shop Ltd. The credit to the Inventory account of $58 400 in the first closing entry removes the beginning inventory balance and transfers it to the Profit or Loss Summary account. The ending inventory balance of $53 260 is recorded in the second closing entry. Before this second entry is made and posted, the ending inventory is not reported in any ledger accounts.

LEARNING CHECK

☐ Retail businesses can prepare a suitable worksheet when either a perpetual or periodic inventory system is being used.

☐ The worksheet prepared under a perpetual inventory system is identical to that prepared under the periodic inventory system except for the disclosure of cost of sales components. Whereas the perpetual worksheet shows cost of sales and closing inventory only as separate line items, the periodic worksheet shows both opening and closing inventories, together with separate line items for purchases and purchases returns.

☐ The general journal closing entries are the same under both systems of inventory, except for the treatment of beginning and ending inventory accounts, and the accounts necessary for determining cost of sales.

6.6 Detailed income statement for a retailer

LO 6 **Prepare a detailed income statement for a retail business.**

A detailed income statement for The Fashion Shop Ltd is presented in figure 6.15. In this figure, for illustrative purposes only, we assume that the company uses a periodic inventory system and therefore reports a detailed cost-of-sales section. In a perpetual inventory system, cost of sales is shown on one line, as in figure 6.11 for Fridge Town. Expenses are classified by function into three categories: selling and distribution, administrative, and finance and other expenses. In the figure, individual types of expenses and amounts are assumed within each category for illustrative purposes. Note the items included in finance and other expenses, especially the discount allowed. Discount received is shown as an item of other income. A detailed listing of individual expenses was not included in the worksheet.

Figure 6.15 Income statement for a retail business — periodic inventory system

THE FASHION SHOP LTD
Income Statement
for the year ended 31 December 2016

INCOME			
Revenue:			
Sales revenue			$714 280
Less: Sales returns and allowances			21 390
Discount allowed			3 260
Net sales revenue			689 630
Cost of sales:			
Inventory 1/1/16		$ 58 400	
Add: Purchases	$472 620		
Freight inwards	6 210		
	478 830		
Less: Purchases returns and allowances	13 480		
Discount received	2 860		
Net cost of purchases		462 490	
Cost of goods available for sale		520 890	
Less: Inventory 31/12/16		53 260	
Cost of sales			467 630
GROSS PROFIT			222 000
Other income:			
Rent revenue			2 400
			224 400
EXPENSES			
Selling and distribution expenses:			
Sales salaries and commission expense	61 040		
Freight outwards	6 210		
Advertising expense	8 420		
Rent expense — store space	17 000		
Depr. expense — store equipment	7 600		
		100 270	
Administrative expenses:			
Office salaries expense	63 040		
Rent expense — office space	12 000		
Depr. expense — office equipment	3 200		
Insurance expense	610		
		78 850	
Finance and other expenses:			
Interest expense		1 000	
			180 120
PROFIT BEFORE INCOME TAX			44 280
Less: Income tax expense			10 470
PROFIT			$ 33 810

LEARNING CHECK

☐ An income statement for a retail business using the periodic inventory system includes a detailed cost-of-sales section, whereas under the perpetual inventory system cost of sales is shown on one line.

6.7 Net price method and settlement discounts

LO 7 **Describe the net method of recording purchases and sales whenever there are settlement discounts.**

Purchases and sales were recorded at the gross invoice price in the preceding illustrations. Under the gross price method, inventory purchases are recorded at the gross, or full, invoice price, and any discount received is not recorded unless payment is made within the discount period. Any discounts lost are not separately reported for use by management and become a part of the inventory cost. In effect, the gross price method assumes initially that discounts will not be taken; they are recorded later in the accounts only when the discounts are taken by the seller or buyer.

However, if one assumes that discounts are normally taken, then a discount received could be seen as reducing the initial unit cost of the inventory purchased. If the subsequent payment is not made within the discount period, the discount is lost and could be reported as interest expense. Thus, it could be argued that use of the gross price method overstates inventory costs and understates interest expense.

In the accounting records of the seller, when the gross price method is used, a sale is recorded for the full invoice price and a Discount Allowed account is recorded if the customer pays within the discount period. If a discount is not taken, it is not separately reported and the amount of the discount is included in the Sales account. However, it could be argued that a discount not taken is an added charge to the customer for permitting the deferral of the payment and should be reported as a separate item of other revenue.

An alternative procedure to the gross price method, namely the net price method, could be used. Under the net price method, a buyer of inventory debits purchases of inventory (credits sales in the case of the selling business) for the net invoice amount (invoice price less the expected cash discount) when recording the initial transaction, on the assumption that all discounts on offer will be taken. This would be more in line with the requirement of IAS 2/AASB 102 to record inventory at the net cost of purchases.

To illustrate the net price method (and ignoring GST), assume the purchase of goods for $5850 on terms of 2/10, n/30, and a settlement of the account balance within the discount period. The entries for both the buying and selling business, assuming both use the periodic inventory system, are as follows:

		Buying business			**Selling business**		
Jan.	15	Purchases	5 733		Accounts Receivable	5 733	
		Accounts Payable		5 733	Sales		5 733
(Invoice price of $5850 less 2% discount of $117 = $5733.)							
Jan.	24	Accounts Payable	5 733		Cash at Bank	5 733	
		Cash at Bank		5 733	Accounts Receivable		5 733

If payment is not made within the discount period, the full invoice price of $5850 must be paid since the cash discount is lost. The entry is as follows:

Buying business			**Selling business**		
Accounts Payable	5 733		Cash at Bank	5 850	
Discount Lost	117		Discount Earned		117
Cash at Bank		5 850	Accounts Receivable		5 733

Note that the Accounts Payable (Accounts Receivable) account must be reduced by $5733 to offset the initial credit (debit) of $5733 made to the account on 15 January even though cash of $5850 was eventually paid (received). The difference of $117 is the discount. Discount Lost is a financial expense that results from delaying payment and is reported along with interest expense in the income statement. Discount Earned is considered interest revenue and is reported in the income statement as other revenue.

The net method is considered by the authors as conceptually preferable because the cost of the asset purchased (or sales revenue recognised) is recorded in terms of the net cash price. This method also results in reporting the amounts of discount lost and discount earned as separate items for use by management in evaluating financial management practices since discounts should normally be taken. Nevertheless, the gross method is commonly used in practice because it avoids the practical problem of allocating the discount to individual units when a physical inventory is taken and when the amounts are entered on individual inventory records under the perpetual inventory system. In addition, the discount amounts involved are often immaterial. In this text, the gross price method of recording purchases will be used.

LEARNING CHECK

☐ Under the net price method, inventory purchases are recorded net of the expected cash discount.

6.8 Profitability analysis for decision making

LO 8 **Perform a brief analysis of profitability in a retail business for decision-making purposes.**

The income statement for a business engaged in retailing is illustrated in summary form in figure 6.1 (p. 237), and in detail in figure 6.15. This statement is structured to present a picture of the main items of income and expense associated with retail operations. This structure enables management to assess the profitability of operations, by monitoring over time the relationships that exist among sales, cost of sales, gross profit, expenses and profit. For example, if cost of sales rises faster proportionately than sales, then gross profit will decline. Overall profit, however, could remain stable if there are compensating savings in expenses.

These relationships are commonly expressed in the form of percentages or ratios, and are monitored over time to ascertain trends. Comparison with those ratios of similar business entities or industry averages (if available) can aid in interpreting ratios to assess profitability performance. These common ratios are gross profit ratio, profit margin (or return on sales ratio), expenses to sales and inventory turnover. Note that these ratios are not affected by GST as all amounts used in their calculation exclude GST.

Gross profit ratio

The **gross profit ratio** expresses gross profit as a percentage of net sales, and represents the portion of the sales dollar that is reflected in gross profit. It is calculated by:

$$\frac{\text{Gross profit}}{\text{Net sales}} \times 100\%$$

This ratio is considered informative because it expresses gross profit in relation to sales. This ratio also indirectly reflects the relationship of cost of sales to sales. A decline in the ratio over time could be caused by selling price reductions or increased cost of sales. Any decline is carefully monitored to determine whether the trend is temporary or long term requiring management action to correct the trend if possible.

Profit margin

The **profit margin** reflects the portion of each sales dollar that ends up as final profit. It is calculated by:

$$\frac{\text{Profit (after tax)}}{\text{Net sales}} \times 100\%$$

Again, this ratio is considered more informative than simply stating profit in absolute terms, because it expresses profit as a proportion of sales. Adequacy of the profit margin depends on the industry in which the entity is involved. For example, it would be expected that a large supermarket chain would have a low profit margin, compensated by a large volume of sales, whereas a jewellery store would generally have a high profit margin, offset by a low sales volume. Again, the trend in this ratio over time is more relevant to managers, and remedial action needs to be taken if a long-term unfavourable trend becomes apparent.

Expenses to sales ratio

Expenses to sales ratio reflects the portion of each sales dollar that is needed to meet the entity's expenses other than cost of sales. It is calculated by:

$$\frac{\text{Expenses}}{\text{Net sales}} \times 100\%$$

Similar to the other ratios above, this ratio is considered more informative than simply stating expenses in absolute terms because it shows the relationship between expenses and sales. Reducing costs has been heavily pursued by businesses in Australia in recent years, greatly enhancing their profit performance. Of course, there is a limit to just how far costs can be cut without service declining, which can lead to loss of customers and hence loss of income.

Inventory turnover

Another important ratio used to assess performance in a retail business is the **inventory turnover**. This ratio indicates the number of times average inventory has been sold during a period, and is calculated as follows:

$$\frac{\text{Cost of sales}}{\text{Average inventory}}$$

Since cost of sales represents an 'average' of the cost of all items sold during an accounting period, the ratio uses the 'average' inventory for the period in order to assess more accurately the number of times the inventory has been sold during that period. Average inventory is usually calculated as the mean of the beginning and ending inventories for the period. The higher the ratio, the higher the turnover of inventory and, usually, the higher the profitability of the business. However, the inventory turnover ratio can vary significantly from industry to industry; for example, a retailer of spare parts for motor vehicles will always have a lower inventory turnover than a retailer selling fruit and vegetables. Hence, it is always wise to interpret the ratio by relating it to the industry average and to trends in the ratio for that particular business for previous years.

Even though high inventory turnover generally is considered to be a desirable trait of good management, this is not always the case. For example, a very high inventory turnover may also indicate that the business is holding too little inventory, and that the business may be losing sales as a result of insufficient inventory on hand. Management is always faced with the challenge of having enough inventory to serve customers but not too much that it has large amounts of money tied up in inventory.

Ratios illustrated

For illustration purposes, the following data are assumed for a retail business:

	2016	**2017**
Net sales	$320 000	$350 000
Cost of sales	208 000	238 000
Gross profit	112 000	112 000
Expenses	32 000	42 000
Profit	80 000	70 000
Inventory ($43 000 in 2015)	47 000	53 000

Using the above figures, the profitability ratios discussed previously are:

Gross profit ratio	35%	32%
Profit margin	25%	20%
Expenses to sales	10%	12%
Inventory turnover	4.6 times	4.8 times

As can be seen from the ratios, profitability has declined from 2016 to 2017. Both profit ratios have declined sharply because of increasing costs of purchases and/or declining mark-ups. Management must look at increasing prices and/or seek alternative cheaper supplies of merchandise.

Nevertheless, the business has managed to increase its inventory turnover. This seems to suggest that the rising costs of merchandise have not been passed on to customers and that management could improve profitability with an increase in selling prices. This, of course, may result in a fall in inventory turnover in the future. Expenses as a proportion of sales also have risen sharply, and management must take action to reduce costs, if profit margins are to be preserved.

LEARNING CHECK

☐ The profitability of a retail business can be analysed over time using ratios to ascertain trends.

☐ The gross profit ratio expresses gross profit as a percentage of net sales; the profit margin ratio expresses profit as a proportion of net sales; the expenses to sales ratio shows how much of each sales dollar is needed to meet expenses; the inventory turnover ratio indicates how many times average inventory has been sold during a period.

KEY TERMS

Adjustment (GST), p. 239
Adjustment note, p. 239
Administrative expenses, p. 237
Beginning inventory, p. 250
Cash discount, p. 242
Cost of sales, p. 237
Credit period, p. 241
Credit terms, p. 241
DDP (delivered duty paid), p. 244
Discount allowed, p. 242
Discount period, p. 242
Discount received, p. 242
Ending inventory, p. 250
Expenses to sales ratio, p. 263
EXW (ex works), p. 244
Finance expenses, p. 237
Freight inwards (transportation-in), p. 246
Freight outwards, p. 244
Gross profit (or gross margin) on sales, p. 237
Gross profit ratio, p. 262
Inventory, p. 236
Inventory turnover, p. 263
Periodic inventory system, p. 250
Perpetual inventory system, p. 244
Physical inventory count (stocktake), p. 250
Profit margin, p. 262
Purchases, p. 251
Purchases returns and allowances, p. 252
Sales, p. 237
Sales returns and allowances, p. 241
Selling and distribution expenses, p. 237
Stocktake, p. 250
Tax invoice, p. 238
Trade discount, p. 243
Transportation-in, p. 246

DISCUSSION QUESTIONS

1. Define the term ‘inventory’ as used in the accounting standard AASB 102/IAS 2 ***Inventories***. Are office supplies included in inventory? Why or why not?
2. Discuss the purpose and content of source documents used by a business registered for GST to record the purchase and sale of inventory. How would your answer differ if the business was not GST-registered?
3. Discuss how gross profit on sales is calculated for a retail entity. Why are sales returns and allowances and purchases returns and allowances recorded in contra accounts to sales and purchases respectively? Why is

freight inwards added to purchases but freight outwards treated as an expense?

4. What is a cash discount? What are the benefits to the seller of allowing cash discounts? Distinguish between a cash discount and a trade discount.
5. What is the meaning of the terms DDP and EXW? Discuss the impact of such terms on the buyer's and seller's accounting system. Give an example to illustrate.
6. 'The perpetual inventory system is superior to the periodic system.' Discuss.
7. With the growing importance of computerised accounting systems, which inventory system (perpetual or periodic) has become more popular? Explain why. Is this desirable? Why?
8. Why do businesses that use a perpetual inventory system continue to perform a physical stocktake at least once a year?

9. Having examined the income statements for the last 2 years, the manager of a small business noticed that, in spite of the prosperous result for the current year, the income items recognised as 'discount received' had fallen sharply from the previous year. Upon investigation, she found that the new employee appointed to look after payment of the accounts had not paid several invoices within the discount period, giving the reason that it was not worth the effort because the discount to be received was only 1% on some invoices, and 2% on others, if paid within 10 days. Discuss the importance (or otherwise) of paying creditors' accounts within the discount period.
10. Describe the ratios that may be used by management to assess the profit performance of a retail business. Explain the factors that could contribute to adverse trends developing in these ratios.

EXERCISES

Exercise 6.1 JOURNAL ENTRIES FOR BOTH BUYER AND SELLER — PERIODIC INVENTORY SYSTEM

LO 3

A. Prepare general journal entries to record the following transactions (a) for Elwood Ltd and (b) for Balaclava Ltd. Both companies use a periodic inventory system. (Assume neither is registered for GST.)

April 3 Elwood Ltd sold merchandise to Balaclava Ltd for $3250 with terms 2/10, n/30, EXW supplier's warehouse.

5 Balaclava Ltd paid the freight cost of $120.

7 Balaclava Ltd returned merchandise worth $420.

8 Balaclava Ltd paid Elwood Ltd the amount due.

B. Indicate how each relevant account balance should be reported in the financial statements of Elwood Ltd and Balaclava Ltd.

Exercise 6.2 JOURNAL ENTRIES — PERPETUAL INVENTORY SYSTEM

LO 3, 4

Using the perpetual inventory system, record the following transactions in the general journal of Fitzroy Ltd (assume GST does not apply).

1. Purchased 240 units for $220 each on credit.
2. Returned 12 units to the supplier.
3. Sold 48 units for $380 each on credit.
4. Purchased office supplies for $360 cash.
5. Customer returned 6 of the units sold in (3).
6. Sold 42 units for $390 each on credit.
7. The physical inventory count at the end of the period consisted of 140 units of inventory.

Exercise 6.3 JOURNAL ENTRIES — PERPETUAL INVENTORY SYSTEM

LO 3, 4

Using the perpetual inventory system, record transactions (1) to (7) in exercise 6.2 in the general journal, assuming the business is registered for the GST, and that GST has to be added to the figures given.

Exercise 6.4 JOURNAL ENTRIES — PERIODIC INVENTORY SYSTEM

LO 3, 4

Using the periodic inventory system, prepare general journal entries for the following transactions of Heidelberg Housewares (assume no GST).

1. Purchased inventory on credit for $58 200.

2. Sold inventory for $18 800 in cash and $16 730 on credit.
3. A customer returned goods she had bought on credit for $1840.
4. Purchased a computer to be used in the business for $2400 cash.
5. Returned inventory for credit that was previously purchased for $1060.
6. Purchased inventory on credit with $12 800 list price. A 25% trade discount applies.
7. Sold inventory for $7600 on credit.

Exercise 6.5 JOURNAL ENTRIES — PERIODIC INVENTORY SYSTEM LO 3, 4

Using the periodic inventory system, prepare general journal entries to record transactions (1) to (7) in exercise 6.4, assuming the business is registered for the GST, and that GST has to be added to the figures given.

Exercise 6.6 JOURNAL ENTRIES FOR BUYER AND SELLER — PERPETUAL INVENTORY SYSTEM LO 3, 4

The following are selected transactions of Watsonia Stores:

July 12 Sold goods on account to Viewbank Market for $1200, terms 2/10, n/30. The cost of the goods sold was $800.

19 Forwarded a credit note for $90 to Viewbank Market covering part of the goods sold on 12 July, which cost $60, that were returned by Viewbank Market as inappropriate. The goods returned were not defective.

21 Received from Viewbank Market a cheque in full settlement of the above transactions.

Required

Assuming that neither business is registered for GST, record the above transactions in the general journal of (1) Watsonia Stores and (2) Viewbank Market.

Exercise 6.7 JOURNAL ENTRIES — PERPETUAL INVENTORY SYSTEM WITH GST GST LO 3,4

Refer to the information in exercise 6.6 and assume now that both businesses are registered for GST.

Required

Record the transactions in the general journal of (1) Watsonia Stores and (2) Viewbank Market.

Exercise 6.8 DISCOUNTS AND RETURNS LO 3, 4

Chloe's Clothing Importers sells clothing with credit terms of 3/15, n/30. A trade discount of 30% is given to purchases made by wholesalers. On 6 September 2016, Kingsbury Wholesalers purchased clothing with a list price of $176 000 from Chloe's Clothing Importers. The clothes had cost the business $80 000 to import from Thailand. Ignore GST.

Required

A. Determine the amount of the trade discount given to Kingsbury Wholesalers.
B. Assume that Kingsbury Wholesalers returned clothing with an original list price of $2640, and a cost of $1200. What source documents would be used by each business to note the transaction? Prepare journal entries to record the return in the accounting records of both entities.
C. What is the discount period? If Kingsbury Wholesalers pays on the last day of the discount period, how much is the sales discount recorded by Chloe's Clothing Importers? (Don't forget the return.) Record the journal entry made by both entities.
D. If Kingsbury Wholesalers does not pay within the discount period, when is the net amount due? What would be the effective annual interest rate assuming that Kingsbury Wholesalers pays on the day the net amount is due?

Exercise 6.9 JOURNAL ENTRIES — FREIGHT COSTS AND DISCOUNTS LO 3, 4

The Confiture Factory in central Adelaide buys sculptures, flat ware and jewellery from a number of private artists around the country. The Confiture Factory always purchases the products from the suppliers on the terms EXW (place of seller's business) and usually sells to customers on the basis of cash over the counter. Assume the use of a periodic inventory system and ignore GST.

The following events occurred in the first week of November 2017 for the Confiture Factory:

Nov. 9 Purchased fine statues for $32 000 on credit, terms 2/10, n/30, EXW Alphington, from Roger Podin, a glass sculptor, operating in Alphington. Freight costs were $480.

11 The Confiture Factory sold and delivered products to the head office of NSW Mining Ltd in Sydney for $48 000 cash. The freight cost was $120. Freight terms were DDP Sydney.

12 The Confiture Factory sold some fine flat ware for $8000 cash to Fairfield Fine Fittings. Freight costs were $600 cash, and the terms were EXW Adelaide.

14 The Confiture Factory paid Roger Podin for the glassware purchased on 9 November.

Required

Record the transactions in the general journal of the Confiture Factory.

Exercise 6.10 INCOME STATEMENT — PERIODIC INVENTORY SYSTEM LO 2, 6

Use the following information from the records of Preston Partners to prepare an income statement under the periodic inventory system for the year ended 30 June 2017.

Purchases	$186 600
Inventory, 1 July 2016	13 860
Inventory, 30 June 2017	12 920
Selling and distribution expenses	45 420
Sales	268 860
Purchases returns and allowances	4 420
Sales returns and allowances	6 220
Administrative expenses	16 460
Freight inwards	3 180
Finance expenses	2 020

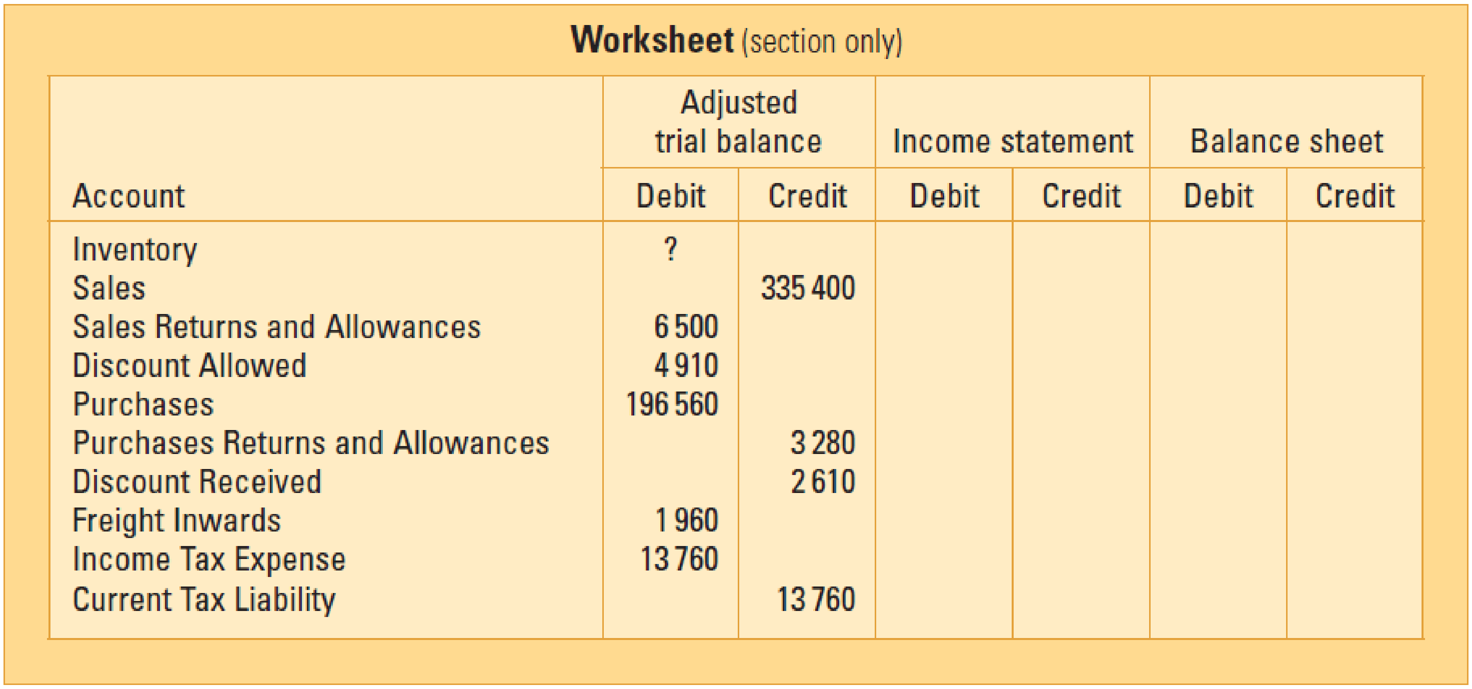
Exercise 6.11 INCOME STATEMENT — PERPETUAL INVENTORY SYSTEM LO 2, 6

The account balances below are taken from the records of Gilberton Retail. Prepare an income statement under the perpetual inventory system for the year ended 30 June 2016.

Cost of sales	$102 620
Inventory, 30 June 2016	12 070
Selling and distribution expenses	32 730
Sales	163 810
Sales returns and allowances	3 880
Administrative expenses	10 750
Freight inwards	2 020
Finance expenses	1 360

Exercise 6.12 COMPLETION OF WORKSHEET — PERIODIC INVENTORY SYSTEM LO 5

Selected accounts and a section of a worksheet for Sunhill Stores are shown below:



Worksheet (section only)

Account	Adjusted trial balance		Income statement		Balance sheet	
	Debit	Credit	Debit	Credit	Debit	Credit
Inventory	?					
Sales		335 400				
Sales Returns and Allowances	6 500					
Discount Allowed	4 910					
Purchases	196 560					
Purchases Returns and Allowances		3 280				
Discount Received		2 610				
Freight Inwards	1 960					
Income Tax Expense	13 760					
Current Tax Liability		13 760				

Required

The beginning and ending inventory were $45 760 and $52 420 respectively. Enter the beginning and ending inventory amounts in the appropriate columns and extend the other account balances listed to their appropriate columns.

Exercise 6.13 CLOSING ENTRIES — PERIODIC INVENTORY SYSTEM **LO 5**

The following information is taken from the trial balance of Petra's Pedicure Parlour.

	Debit	Credit
Inventory, 1 July 2016	$ 24 290	
Petra Portillo, Drawings	20 600	
Sales		$360 520
Sales returns and allowances	4 520	
Discount allowed	1 820	
Purchases	218 380	
Purchases returns and allowances		1 580
Discount received		1 390
Freight inwards	3 510	
Selling and distribution expenses	69 060	
Administrative expenses	56 550	

Required

Given that the cost of the inventory on 30 June 2017 is $25 300, prepare the closing entries on 30 June 2017.

Exercise 6.14 CLOSING ENTRIES — PERPETUAL INVENTORY SYSTEM **LO 5**

The trial balance of Westmeadow Weightlifting contains the following account balances at 30 June.

	Debit	Credit
Inventory	$ 153 470	
Walter Westmeadow, Drawings	93 540	
Sales		$2 389 720
Sales returns and allowances	43 740	
Discount allowed	7 740	
Cost of sales	1 528 960	
Freight inwards	27 480	
Discount received		5 360

Selling and distribution expenses	388 150
Administrative expenses	233 411
Other finance expenses	44 440

Required

Prepare the closing entries under the perpetual inventory system.

Exercise 6.15 MISSING DATA AND PROFITABILITY ANALYSIS **LO 8**

Summary financial information for two independent companies is presented below:

	Kalkallo Ltd	Mickleham Ltd
Sales	420 000	?
Sales returns	?	18 000
Net sales	396 000	510 000
Cost of sales	230 000	?
Gross profit	?	165 000
Expenses	105 000	?
Profit	?	80 000

Required

A. Calculate the missing amounts.
B. Calculate the gross profit ratio, profit margin and expenses to sales ratio for each company.
C. Compare and comment on the two companies' ratios you calculated in requirement B.

PROBLEMS

Basic
Moderate
Challenging

Problem 6.1 JOURNAL ENTRIES — PERPETUAL INVENTORY SYSTEM **GST** **LO 3, 4**

Schofield's Stores carried out the following transactions relating to a single product in October:

Oct. 5 Purchased 100 units for $60 each on credit.
11 Returned 6 units which were unsuitable.
13 Sold 112 units for $90 each on account.
19 A customer returned 3 units sold on 13 October.
26 Sold 35 units for $90 each on account.

Required

A. Prepare general journal entries to record the transactions, assuming that a perpetual inventory system is used. The beginning inventory on 30 September consisted of 80 units at $60 cost each. Ignore GST.
B. Prepare general journal entries to record the transactions, assuming the business is registered for the GST.
C. Assuming that the business closes its records at the end of the month, prepare entries to close the Profit or Loss Summary accounts based on the data in requirements A or B (or both), assuming that expenses for October were $2900.

Problem 6.2 JOURNAL ENTRIES FOR BOTH BUYER AND SELLER — PERIODIC INVENTORY SYSTEM **LO 3, 4**

The following transactions relate to the businesses of L. Lakemba and F. Fairlight. Both businesses use a periodic inventory system.

June 7 Lakemba sold goods to Fairlight for $3400. Terms were 2/10, n/30.
14 Fairlight paid Lakemba the net amount due.
15 Lakemba sold goods to Fairlight for $2470. Terms were 2/10, n/30.
26 Fairlight paid for the goods.

Required

A. Prepare general journal entries to record the transactions, ignoring GST.
B. Prepare general journal entries to record the transactions, assuming both businesses are registered for the GST.

Problem 6.3 JOURNAL ENTRIES — PERPETUAL INVENTORY SYSTEM LO 3, 4

On 28 February 2016, Darwin-based entity, Phonee Partners, had inventory of 480 phones at a total cost of $153 600. The business maintains a perpetual inventory system. The following transactions occurred during March 2016:

March 2 Purchased 280 phones on credit for $280 each from Sutherland Electronics, DDP Darwin, terms 2/10, n/30. Sutherland Electronics also made a cash payment of $150 for freight on this date.
5 Sold 325 phones on credit to Phone Phanatics for $650 each.
8 Received $1680 credit for 6 damaged phones returned to Sutherland Electronics.
11 Paid Sutherland Electronics in full, less discount.
Received payment in full from Phone Phanatics.
18 Sold 60 phones on credit to Kingsford Phones for $620 each; terms 2/10, n/30.
20 Purchased 80 phones on credit for $280 each from Oakhurst International, EXW Melbourne, terms 2/15, n/30. Oakhurst International also made a cash payment of $160 for freight on this date.
24 Received payment in full from Kingsford Phones, less discount.
26 Paid Oakhurst International in full, less discount.
29 Sold 98 phones on credit to Hinchinbrook Phone Shop for $650 each.
31 Granted Hinchinbrook Phone Shop $4550 credit for 7 phones returned, which cost $1960.

Phonee Partners' chart of accounts contained the following accounts: Cash at Bank, Sales, Accounts Receivable, Discount Allowed, Inventory, Sales Returns and Allowances, Accounts Payable, Cost of Sales, Discount Received.

Required
Prepare journal entries for the above transactions for the month of March 2016 for Phonee Partners.

Problem 6.4 JOURNAL ENTRIES — PERPETUAL AND PERIODIC INVENTORY SYSTEMS LO 3, 4

Assume that Merryland's Markets had an inventory balance of $32 570 at the close of the last accounting period. The following sales and purchase transactions are for the current period.

1. Purchased goods on account for $27 190.
2. Returned part of the above purchase that had an original purchase price of $1590.
3. Paid for the balance of the purchase in time to receive a discount of 2% of the purchase price.
4. Sold goods costing $24 900 for $49 820. Cash of $23 000 was received, with the balance due on account.
5. Goods sold on credit for $2020 (cost $1010) were returned.

Required
A. In two columns, prepare general journal entries (ignoring GST) assuming:
    1. a periodic inventory system is used
    2. a perpetual inventory system is used.
B. Same as for requirement A, except that GST is to be added to the figures where appropriate.
C. Suppose that a physical count of the inventory at the end of the current period shows inventory of $30 000 to be on hand. Present the entries (if any) required under each inventory system to adjust for any discrepancy.
D. Comment on which system would best disclose any discrepancy.

Problem 6.5 JOURNAL ENTRIES, DISCOUNTS, CLOSING ENTRIES AND INCOME STATEMENTS — BOTH PERPETUAL AND PERIODIC INVENTORY SYSTEMS LO 3, 4, 5, 6

Dundas Desks buys desks for $80 each and sells them for $140 each. On 1 August 2016, 86 desks were in inventory. Dundas Desks completed the transactions below during August.

Aug. 2 Purchased 140 desks on account. Terms: 2/10, n/30, EXW supplier's warehouse.
3 Paid freight cost of $120 on 2 August purchase.
4 Sold 80 desks on account. Terms: 3/10, n/30, DDP acquirer's warehouse. Paid freight cost of $60.
8 Returned 30 of the desks purchased on 2 August and paid the amount due on the desks retained in stock.
10 A customer returned 11 of the desks sold on 4 August. The desks were not defective and were returned to stock.
12 Purchased 72 desks on credit. Terms: 2/10, n/30, EXW supplier's warehouse.
13 Received payment from customer for the amount due on 4 August sale.
18 Sold 140 desks for cash at $120 each.
20 Six of the desks sold on 18 August were returned by the customer for a cash refund. The desks were not defective.
23 Paid the supplier the amount owed for the 12 August purchase.

A physical inventory count taken on 31 August 2016 showed 63 desks in stock.

Required

A. In two columns and ignoring GST, prepare general journal entries to record the transactions assuming:
   1. a perpetual inventory system is used
   2. a periodic inventory system is used. Narrations are not required.
B. Repeat requirement A but assume the business is registered for the GST.
C. Assuming Dundas Desks closes its accounts at month end; prepare relevant entries to close the accounts under both inventory systems.
D. Prepare two separate income statements showing gross profit and profit for August, assuming that:
   1. the perpetual inventory system was used
   2. the periodic inventory system was used.

Problem 6.6 JOURNAL ENTRIES INVOLVING DISCOUNTS, CLOSING ENTRIES AND INCOME STATEMENT — PERPETUAL INVENTORY SYSTEM **LO 3, 4, 6**

Vaucluse Ltd sells handheld video consoles for $120 each. It buys the consoles for $90 each. On 1 June 2017, 60 consoles are in inventory. Vaucluse Ltd completed the following transactions during June (ignore GST):

June 1 Sold 12 consoles for cash.
2 Paid the supplier for 24 consoles purchased on 6 May. Terms: 2/10, n/30.
4 Purchased 32 consoles on credit. Terms: 2/10, n/30, EXW supplier's warehouse.
5 A customer returned 4 of the consoles sold on 1 June and received a cash refund. The consoles were not defective in any way.
8 Paid $20 in freight charges on 4 June purchase.
10 Returned 3 of the consoles purchased on 4 June for credit.
12 Sold 18 consoles on credit. Credit terms: 2/10, n/30.
14 Paid the supplier the amount due on the 4 June purchase.
23 A customer returned 3 consoles sold on 12 June and included a cheque for the amount due on the other 15 consoles. The consoles were not defective and were returned to inventory.
24 Purchased 40 consoles on credit. Terms: 2/10, n/30, EXW supplier's warehouse.
29 Paid the supplier for the 24 June purchase.

A physical inventory count taken on 30 June disclosed that 103 consoles were on hand.

Required

A. Prepare general journal entries to record the transactions, assuming that a perpetual inventory system is used. Ignore GST.
B. Assuming that Vaucluse Ltd completes the closing process at the end of each month, prepare entries to close the accounts.
C. Prepare an income statement for the month of June 2017.

Problem 6.7 JOURNAL ENTRIES INVOLVING GST, DISCOUNTS, CLOSING ENTRIES AND INCOME STATEMENT — PERPETUAL INVENTORY SYSTEM

GST **LO 3, 4, 6**

Complete all of the requirements of problem 6.6, assuming that Vaucluse Ltd is registered for the GST. Assume that dollar figures quoted in problem 6.6 are ex GST. Hence, the selling price of consoles is now $132 including GST, the purchase price is now $99 including GST and the freight charge paid on 8 June is now $22 including GST.

Problem 6.8 PERPETUAL INVENTORY SYSTEM AND GST

LO 3, 4

Cliff Clarendon opened a wine store on 1 June 2016. The business trades under the name of Wine to Dine and uses a perpetual inventory system to account for its inventory. The business was registered for GST. All credit sales are made on the following terms: 2/10, n/30.

Transactions for the business in June 2016 were as follows:

June 1 Clarendon invested $185 000 cash and $48 720 of store equipment into the business. The store equipment is to be depreciated evenly over 7 years.
2 Purchased an inventory of wine from Blacktown Winery on credit for $55 200 plus GST; terms: 2/15, n/30.
3 Paid $1800 rent for June 2016.
4 Purchased additional inventory of wine from Hall Wines on credit for $38 000 plus GST; terms: n/30.
5 Sold some merchandise to C. Tamarara on credit for $14 000 plus GST. Cost of this merchandise was $9200.
6 Purchased promotional supplies for cash from G. Epping for $11 440, which included GST.
8 Purchased a supply of white wines from Voss Vineyard, for $27 600 cash, plus GST.
10 Sold merchandise costing $21 100 to Oatville Hotel on credit for $28 000 plus GST.
12 Purchased Wine from Gladwood Estate on credit for $23 000 plus GST; terms were 2/10, n/30.

14 Paid Blacktown Winery for 2 June purchase.
15 Received payment from C. Tamarara in payment of the account. The discount had been taken by Tamarara.
18 Sold merchandise costing $13 800 to J. Haberfield on credit for $22 000 plus GST.
18 Received payment from Oatville Hotel in payment of its account, less discount.
21 Sold merchandise costing $11 500 to Slater Ltd on credit for $18 400 plus GST.
21 Paid Gladwood Estate for 12 June purchase.
22 Purchased additional merchandise from Blacktown Winery on credit for $28 000 plus GST; terms: 2/15, n/30.
23 Sold for cash, wine costing $8600 to walk in customers, for $14 900 plus GST.
25 Returned bad wine that cost $6600 including GST back to Blackwood Winery.
28 Sold wines costing $28 000 to Berrillee Partners on credit for $41 000 plus GST.
29 Purchased inventory from K. Leonay on credit for $9200 plus GST; terms: 1/10, n/30.
30 Paid month’s salary to sales assistant, $2900.

At the end of the month, Cliff Clarendon undertook a physical stocktake and calculated that inventory worth $79 800 was still on hand and that promotional supplies of $8600 were still in storage. He also estimated that electricity usage for the month was $500 and that telephone usage for the month was $320. No tax invoices had been received from either supplier by 30 June.

Required

A. Prepare general journal entries for June 2016 for the above transactions, including any adjusting entries at the end of the month.
B. Calculate the profit for the business for the month of June 2016.
C. Explain how the entries in A would differ if the business had used the periodic inventory system.

Problem 6.9 WORKSHEET AND COMPLETION OF ACCOUNTING CYCLE — PERPETUAL INVENTORY SYSTEM **LO 5, 6**

A trial balance for Flemington Fashions Pty Ltd is shown below.

FLEMINGTON FASHIONS PTY LTD
Unadjusted Trial Balance
as at 30 June 2017

Account	Debit	Credit
Cash at bank	$ 42 245	
Accounts receivable	45 175	
Inventory	59 360	
Supplies	825	
GST receivable	1 210	
Store equipment	94 630	
Accumulated depreciation – store equipment		$ 20 265
Accounts payable		9 580
Loan payable		26 620
GST payable		2 420
Share capital		90 890
Retained earnings		21 470
Sales		302 520
Sales returns and allowances	2 740	
Discount received		2 590
Cost of sales	176 280	
Freight inwards	2 910	
Discount allowed	1 200	
Sales salaries expense	49 780	
	$476 355	$476 355

Required

A. Prepare a worksheet for Flemington Fashions Pty Ltd. Use the following information to make adjusting entries:
   1. Supplies on hand at 30 June, $260.
   2. Depreciation on the store equipment, $8385.
   3. Interest accrued on the loan payable, $1980.
   4. Income tax expense and payable for the year, $19 600.

B. Prepare an income statement, a statement of changes in equity and a balance sheet for the year ended 30 June 2017.

C. Prepare closing entries.

Problem 6.10 JOURNAL ENTRIES, T ACCOUNTS, CLOSING ENTRIES — PERPETUAL INVENTORY SYSTEM **LO 3, 4, 5**

Seaforth Sunglasses had the following transactions in December. The beginning inventory on 1 December consisted of 320 pairs of sunglasses at $80 each.

Dec.	3	Purchased 302 pairs of sunglasses for $80 each on credit.
	9	Returned 10 pairs of sunglasses that had scratches in the lenses.
	14	Sold 190 pairs of sunglasses for $150 each on account.
	26	A customer returned 3 pairs of sunglasses sold on 14 December.
	27	Sold 64 pairs of sunglasses for $160 each on account.
	31	A physical inventory count shows 358 pairs of sunglasses on hand at a total cost of $28 640.

Required

A. Prepare journal entries to record the transactions, assuming that a perpetual inventory system is used.

B. Post the entries to T accounts, assuming no beginning balances in the cash, receivables and payables accounts.

C. Assuming that the business closes its accounting records each month, prepare entries to close the income statement accounts based on the above data and assuming that all other expenses for December amounted to $8430.

Problem 6.11 INCOME STATEMENT AND RATIOS — PERIODIC INVENTORY SYSTEM LO 6, 8

The following selected information is available for Middleton Wholesalers for September 2016.

Purchases	$ 73 100
Sales	134 800
Freight inwards	1 560
Discount received	1 220
Beginning inventory, 1 September 2016	52 200
Ending inventory, 30 September 2016	31 600
Purchases returns and allowances	1 040
Sales returns and allowances	2 600
Freight outwards	540
Rent expense	1 300
Sales salaries expense	11 100
Discount allowed	2 780
Depreciation expense – office equipment	100
Office supplies expense	310
Office salaries expense	10 100
Advertising expense	1 900
Insurance expense	240

Required

A. Prepare the detailed income statement for Middleton Wholesalers for the month ended 30 September 2016.

B. Calculate the ratio of gross profit to net sales and express as a percentage.

C. Calculate the ratio of profit to net sales and express as a percentage.

D. What might these ratios indicate?

Problem 6.12 WORKSHEET AND COMPLETION OF ACCOUNTING CYCLE — PERIODIC INVENTORY SYSTEM LO 5, 6

Pete's Computer Shop is a sole trader run by Pete Narellan. The unadjusted trial balance of Pete's Computer Shop is shown below.

PETE'S COMPUTER SHOP
Unadjusted Trial Balance
for the year ended 30 June 2017

Account	Debit	Credit
Cash at bank	$ 16 640	
Accounts receivable	19 930	
Inventory (1 July 2016)	44 970	
Prepaid insurance	1 800	
Store equipment	29 680	
Accumulated depreciation – store equipment		$ 8 780
Delivery van	7 440	
Accumulated depreciation – delivery van		3 110
Accounts payable		9 700
Loan payable		11 400
Peter Narellan, Capital		50 640
Drawings	16 550	
Sales		282 060
Sales returns and allowances	11 100	
Discount received		810
Purchases	152 600	
Purchases returns and allowances		9 720
Freight inwards	3 130	
Sales salaries expense	32 760	

Freight outwards	1 520	
Discount allowed	1 360	
Interest expense	1 620	
Office salaries expense	35 120	
	$376 220	$376 220

Required

A. Prepare a worksheet for Pete's Computer Shop. Use the following information to make the year-end adjustments.
   1. Prepaid insurance expired during the year, $1290.
   2. Depreciation on the store equipment, $3100; and on delivery van, $1540.
   3. Accrued interest on the loan payable, $745.

   The ending inventory determined by physical count was $36 430.
B. Prepare an income statement, a statement of changes in capital and a balance sheet for the year ended 30 June 2017.
C. Prepare adjusting and closing entries.
D. Prepare a post-closing trial balance.

Problem 6.13 PROFITABILITY ANALYSIS **LO 8**

The following data have been extracted from the income statement of Llandilo Furniture Store.

	2017	**2016**
Net sales	$545 600	$601 950
Cost of sales	332 130	356 740
Profit	102 350	145 320
Inventory (ending)	74 760	79 200

Required

A. Calculate the gross profit ratio, profit margin, and expenses to sales ratio for the years 2016 and 2017.
B. Assuming that the inventory at the beginning of 2016 is $63 300, calculate the inventory turn-over for 2016 and 2017.
C. Advise management on any trends in these ratios, and any actions you consider necessary.

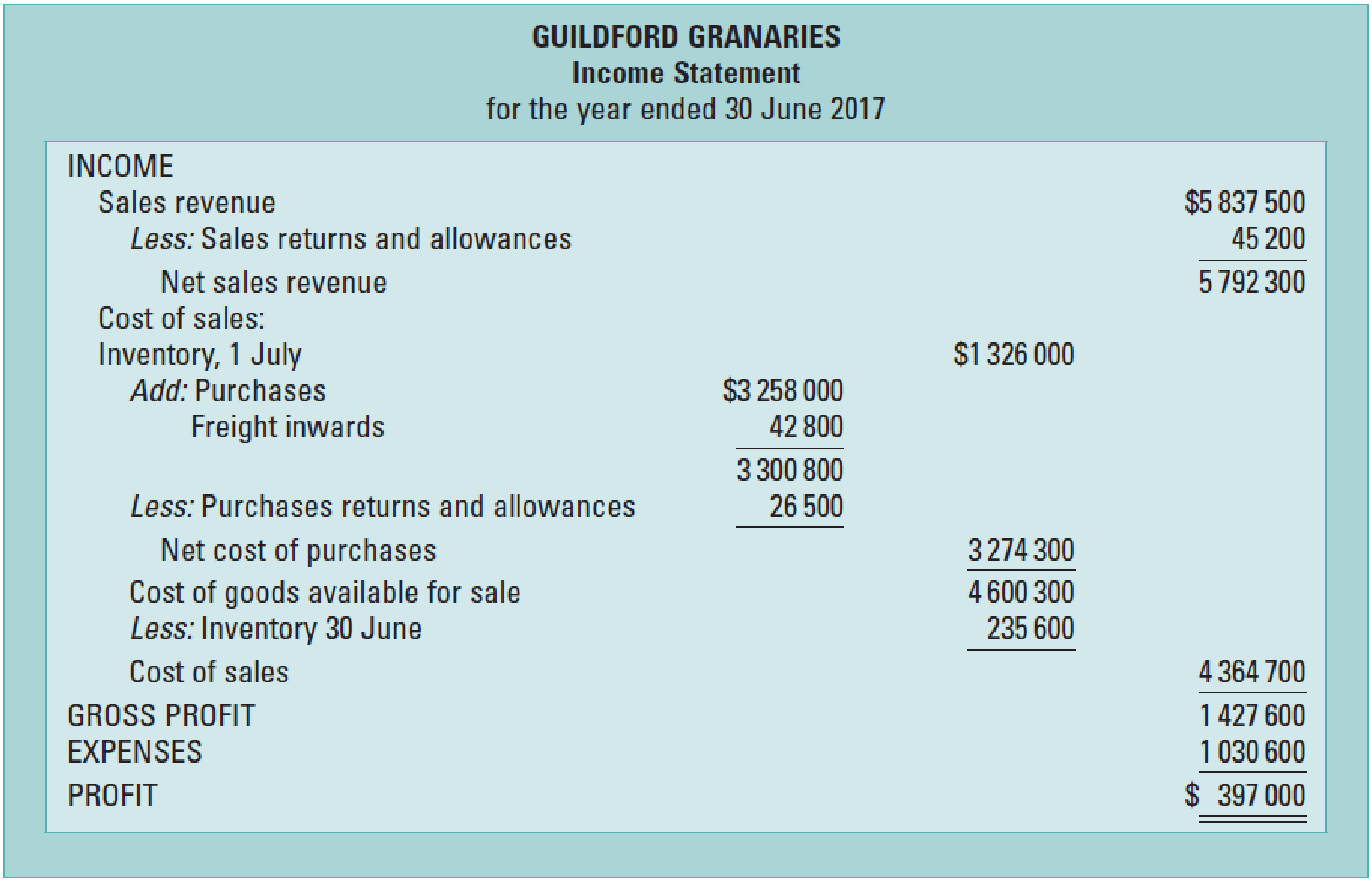
Problem 6.14 CORRECTION OF ERRORS **LO 3, 4, 6**

The income statement below for Guildford Granaries was prepared by the accountant from the accounting records at 30 June 2017. This statement showed a significant improvement over the preceding year when the profit for the year ended 30 June 2016 was $344 700.

On 14 July 2017, while reviewing inventory records, the accountant noticed that incoming shipments of goods received near the annual closing dates had been handled as follows:

1. Purchases in transit on 30 June 2016, amounting to $29 600, had not been included in the ending inventory for that year although the invoice for the goods had been entered in the accounting records on 28 June 2016 and the goods had been shipped on 29 June from the supplier (i.e. ownership of the merchandise had passed on that date).

2. Goods on hand at 30 June 2017, amounting to $16 400, were not included in the ending inventory at that date. They had been omitted because the purchase invoice for this shipment had not been received and the employee supervising the physical stocktake believed that the goods were not the property of the business until the invoice was received. The invoice in question arrived by mail late on 30 June 2017, but no entry was made for it before closing the accounts for 2017. The invoice was recorded on 6 July 2017 as a July transaction.



GUILDFORD GRANARIES
Income Statement
for the year ended 30 June 2017

INCOME			
Sales revenue			$5 837 500
Less: Sales returns and allowances			45 200
Net sales revenue			5 792 300
Cost of sales:			
Inventory, 1 July		$1 326 000	
Add: Purchases	$3 258 000		
Freight inwards	42 800		
	3 300 800		
Less: Purchases returns and allowances	26 500		
Net cost of purchases		3 274 300	
Cost of goods available for sale		4 600 300	
Less: Inventory 30 June		235 600	
Cost of sales			4 364 700
GROSS PROFIT			1 427 600
EXPENSES			1 030 600
PROFIT			$ 397 000

Required

A. Calculate the corrected final profit for the years 2016 and 2017. State the effect of the errors on the profit for the year 2017.

B. Indicate which items, if any, were incorrectly stated in the income statement for 2017, and in the balance sheet prepared at 30 June 2017. Indicate also whether the items were understated or overstated, and the amount of the error in dollar terms.

C. Prepare any correcting journal entries necessary on 14 July 2017.

Problem 6.15 WORKSHEET AND COMPLETION OF ACCOUNTING CYCLE — PERPETUAL INVENTORY SYSTEM

LO 5, 6

Ben's Patisserie had the following balances in its ledger at 30 June 2016.

Cash at bank	$ 24 362
Accounts receivable	102 528
Inventory	145 600
Prepaid insurance	7 872
Office supplies on hand	4 368
Furniture and fixtures	53 040
Accumulated depreciation – furniture and fixtures	14 560
Delivery equipment	62 400
Accumulated depreciation – delivery equipment	24 960
Accounts payable	36 036
Loan payable (long-term)	156 000
Ben Jamin, Capital	38 527
Ben Jamin, Drawings	37 620

Sales revenue	$961 400
Sales returns and allowances	13 332
Cost of sales	549 744
Discount received	11 232
Freight inwards	12 480
Sales salaries expense	91 104
Delivery expense	24 400
Advertising expense	35 880
Rent expense	38 200
Office salaries expense	45 000
Electricity expense	13 400
Discount allowed	9 100
GST payable	94 820
GST receivable	67 205

Ben's Patisserie's financial year ends on 30 June. During the year the accountant prepared monthly statements using worksheets, but no adjusting entries were made in the journals and ledgers. Data for the year-end adjustments are as follows.

1. Prepaid insurance, 30 June 2016, $1312.
2. Office supplies on hand, 30 June 2016, $2324.
3. Depreciation expense for year, furniture and fixtures, $4820.
4. Depreciation expense for year, delivery equipment, $13 230.
5. Sales salaries payable but unrecorded, $3200.
6. Office salaries payable but unrecorded, $880.

Required

A. Prepare a worksheet for the year ended 30 June 2016.
B. Prepare an income statement for the year ended 30 June 2016.
C. Prepare a balance sheet as at 30 June 2016.
D. Make the necessary adjusting entries.
E. Make the closing entries.
F. Make any necessary reversing entries.

DECISION ANALYSIS

Jewellery inventory records

The All That Sparkles Store sells expensive limited edition jewellery items and maintains its inventory records manually, keeping a separate card for each type of jewellery in store. Every time jewellery is purchased or sold, the card for that item is adjusted. Once a year, staff count the inventory of jewellery and compare the amount with the cards. Appropriate alterations are made for differences between inventory on hand and the cards. Prue Diamond is in charge of the shop and she has decided that it is time to install a computer-based system. She has heard that there are two ways to account for inventory but she is not sure which method she has been using and which method to use if she computerises the inventory records. You are an accounting student working part time in the shop, so Prue approaches you for help.

Required

Explain the main differences between the two methods of accounting for inventory and how each method works. Which method of inventory has the All That Sparkles Store been using? Which inventory method would you recommend when the computerised accounting system is installed, and why?

CRITICAL THINKING

Who’s taking the inventory?

Read the following article and answer the questions that follow.

Fresh approach to curb shoplifting

According to the most recent Global Retail Theft Barometer (GRTB) put out by Britain’s Centre for Retail Research, employee theft accounted for 35 per cent, or $41.7 billion, of global shrinkage at retail stores in 2011. Customer theft was responsible for 43 per cent, or $51.5 billion; the rest was attributable to internal error (for example, incorrect price-tagging) and vendor fraud.

The Centre for Retail Research estimates Australia’s retail shrinkage amounted to just over $2 billion in 2011, equal to 1.4 per cent of retail sales. This placed Australia 18th internationally and fourth of developed countries behind the US, Canada and Belgium. Globally, department stores, sellers of auto parts and clothing retailers have the highest rates of shrinkage.

How to combat shrinkage

In a small greengrocers, I’ve seen a little sign above the grapes bin informing consumers that trying one from the bunch will cost them 20c each. Good luck enforcing that. Larger retailers are combining human security and technology. Some of these solutions are very conspicuous, such as the security guards minding exits of JB Hi-Fi stores (a retailer that has been notably successful in keeping down shrinkage in a sector that is naturally predisposed to it).

Foremost among technological fixes is radio-frequency identification (RFID), which is being extensively trialled by global retailers such as Walmart and Macy’s. It is used mainly for improving inventory management and accuracy. This also makes it a key enabler of omni-channel retailing, because when retailers know what their stores stock, they can systematically use it to fill online orders.

RFID involves attaching a small chip or ‘tag’ to each item of merchandise that acts as its unique identifier. These tags are readable from hand-held or fixed scanners using radio frequencies.

The chips are analogous to barcodes but work better, because they can be read from a distance and do not need to be lined up precisely with the reading device. As stolen merchandise leaves the store, RFID can make the retailer aware of it in real time. This makes it useful to combat direct theft by employees as well as by customers.

The widespread deployment of RFID has been held back largely by the cost of the chips, which have now come down below 10c.

Source: Baker, M 2013, ‘Fresh approach to curb shoplifting’, ***The Sydney Morning Herald***, 9 March.

Required

A. How would inventory shrinkage be accounted for?
B. Which inventory system would be most useful in determining inventory shrinkage and why?
C. What type of inventory system would be used when RFIDs are used and why?
D. How would the use of RFIDs aid in doing a physical stocktake?
E. RFIDs seem to be a good solution to inventory shrinkage. Would it always be appropriate to use RFIDs to keep track of inventory?

ETHICS AND GOVERNANCE

Revenue recognition issues

A large wholesale business in Melbourne’s northern suburbs has run into difficulties in the past few years due to a fall in demand from retailers for certain product lines. The CEO of the business and other senior managers, including the sales manager, were appointed on the basis that they will be paid bonuses at the end of the financial year depending on the level of profits made by the business. In recent times, these bonuses have been reduced somewhat and the sales manager has had difficulty meeting some of her private financial commitments. Just before the end of the financial year, a large order was received from a retailer for the supply of merchandise. The order was

placed on the terms of DDP to the warehouse of the retailer, and hence revenue is to be recognised once the merchandise has been delivered to the retailer. Shipment of the order was not possible until 2 weeks into the new financial year. The sales manager, knowing that the entity's profits, and her bonus and that of the other managers, would be increased if the sale was recognised in the current financial year, has approached you, the accountant, to make an entry in the current period to recognise the revenue from this order prior to the goods being shipped.

Required

A. Who are the stakeholders in this situation?
B. What are the ethical issues involved as a result of the sales manager's request?
C. If you were the accountant of this organisation, what action (if any) would you take? Why?

FINANCIAL ANALYSIS

Refer to the consolidated financial statements in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. List the subsidiary companies in the JB Hi-Fi Group.
2. What is the value of the group's sales revenue for the current and previous years? What has been the percentage change in sales revenue for the current year?
3. What is the group's final profit (after income tax) for the current and previous years? What has been the percentage change in profit (after income tax) for the current year?
4. Compare the percentage change in (2) with the percentage change in (3). What information does this comparison provide?
5. What is the total value of inventories on hand for both current and previous years? What is the percentage change in inventory levels? How does this compare with the percentage change in sales revenue calculated in question (2)? Comment on any differences.
6. Calculate appropriate profitability ratios for the most recent 2 years in order to assess the profit performance of JB Hi-Fi Limited.

CHAPTER 7

Accounting systems

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- each of the steps in the accounting cycle (p. 128)
- how to record the sales transactions (including returns) of a retail business registered for the GST (pp. 238–44)
- the difference between the perpetual and periodic inventory systems and how the GST affects inventory transactions for businesses registered for the GST (pp. 244–56)
- how to prepare an income statement for a retail business (p. 260).

Learning Objectives

After studying this chapter, you should be able to:

1 understand how an accounting system operates and describe the three phases involved in the development of accounting systems (pp. 282–5)
2 identify the principles and the limitations of internal control systems (pp. 285–8)
3 record appropriate transactions in subsidiary ledgers, and reconcile each ledger with the appropriate control account in the general ledger (pp. 288–90)
4 record transactions for sales, purchases, cash receipts and cash payments in special journals and understand the purpose and use of the general journal when special journals are used (pp. 290–304)
5 handle circumstances where abnormal balances appear in subsidiary ledgers, and where account set-offs are required (pp. 304–5)
6 understand the basic features of accounting software through exposure to MYOB (pp. 312–17)
7 outline how the accounting cycle works in manual and computerised systems (p. 317).

Red flags to crime

It happens. Fraud valued at more than $100 000 hit 63 times in the last six months of last year, totalling $131 million and that's just those that made it into court. Deloitte Forensics partner Siobhan Hennessy says businesses need to start thinking about fraud when they hire their first employee. 'As soon as you delegate responsibility for cash payments, segment responsibilities, have different bank authorities or someone responsible for inventory, that is the ideal time to start talking about controls,' she says.

Systems have been developed purely to minimise fraud.

Many focus on separating recording of assets with those responsible for their confirmation, avoiding a situation where one person can steal an asset and change company records to cover their tracks.

'Fraud happens where the money is' …

Most accounting systems can search for matches between supplier accounts and employees, check for invalid ABNs, whether invoices are improbably sequential and look for similarities that may signal a would-be fraud.

Gill says business owners often ignore backup systems and so lose evidence of the fraud through oversight. This may hurt when trying to claim on fidelity insurance, he says.

Hennessy says business owners should regularly review bank reconciliations to check for a growing discrepancy between accounting records and actual cash and be aware of who can authorise payments and change accounting records.

Hennessy says business owners should first 'triangulate' the potential fraud.

They should then speak directly with employees involved in suspicious circumstances to seek an alternative explanation before moving quickly if there is no alternative.

How businesses stop fraud	
Implement code of ethics	89.02%
Pre-employment screening	88.21%
Improve internal controls	85.45%
Stress management responsibility	82.28%
Fraud statements	80.33%
Due diligence on suppliers	67.23%
Enforce annual leave	58.72%
Pre-promotion screening	38.60%
Enforce job rotation	8.64%

Source: KPMG, 2012.

Source: Excerpts from Emmerson, R 2012, 'Red flags to crime', ***Herald Sun***, 26 November.

Chapter preview

In earlier chapters, we saw that the effects of various business transactions are ***identified***, ***measured***, ***recorded*** and ***reported*** within an entity's accounting system. This chapter describes accounting systems used for efficient and reliable processing of financial data. An **accounting system** is a collection of source documents, records, procedures, management policies and data processing methods used to transform data about economic transactions and events into information useful for decision making. Accounting systems range from simple manual systems to sophisticated computerised systems.

We have limited the consideration of an accounting system in earlier chapters to one that is both simple and manually operated in order to introduce and illustrate basic accounting procedures. Such a system may be satisfactory for a small business entity with a limited number of transactions. In most cases, however, even relatively small businesses require a more sophisticated accounting system for two reasons.

- The procedures described earlier may be too time-consuming for rapid data processing and timely reporting. The volume of transactions may be so great that the accounting staff cannot process the data manually in a cost-effective and timely manner.
- Many of the transactions are so repetitive that they can be handled more efficiently by classifying them into related groups. Special journals can be used for such repetitive transactions as sales, purchases, cash receipts and cash payments.

This chapter initially concentrates on refinements to the manual system of accounting. Computerised accounting systems are introduced in the latter part of the chapter. We discuss the manual system initially to help your understanding of how computers process accounting data through the system.

7.1 Operation and development of an accounting system

LO 1 **Understand how an accounting system operates and describe the three phases involved in the development of accounting systems.**

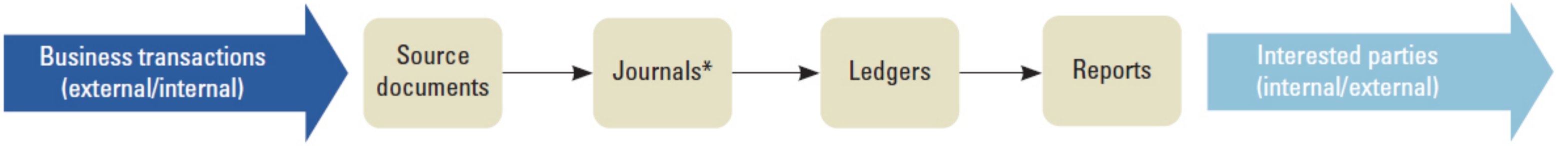
Operation of an accounting system

The operation of an accounting system has three basic phases: ***input***, ***processing*** and ***output***. Transactions are recorded as they occur on numerous source documents such as sales invoices, purchase invoices, cheque butts and bank deposit slips. Source documents serve as input entered into journals, which become a chronological record of the transactions. Periodically, these journals are posted to a general ledger (the processing phase), which represents a permanent record of assets, liabilities, equity, income and expenses. Financial statements are prepared from the data in the general ledger and become the output from the system. The statements provide useful information for decision making and evaluation of the entity by parties outside the entity (such as shareholders, creditors, customers, and the taxation authorities) and by insiders, e.g. owners, managers and employees.

Converting data to information

In the conversion of input to output, data are transformed into information. Although the two terms ***data*** and ***information*** are often used synonymously, a useful distinction between them can be made. ***Data*** are recorded facts; ***information*** is data that have been processed in some prescribed manner so as to be more useful to a potential user. For example, sales data are collected chronologically on invoices, processed through the accounting system, and reported as sales information (revenue) in the income statement. The development of information from data in an accounting system occurs as we proceed through the accounting cycle as shown in figure 7.1.

Figure 7.1 Conversion of accounting data to accounting information



*Optional in computerised accounting systems.

Data entry has progressed from handwritten source documents to direct entry via computer terminals or product code scanners, and output can be produced the instant data are entered.

Development of an accounting system

One of the essential steps in the establishment of any business is the development of a reliable accounting system. The system may be designed in-house and installed by a member of the entity's own accounting department, developed by an outside source such as a public accounting firm or management consultant or a commercially available accounting software package.

As the business grows and is involved in different activities, the accounting system must be periodically revised to accommodate a larger volume of transactions and changes in the nature of those transactions. The installation and/or revision of an accounting system consists of three phases: (1) systems analysis, (2) systems design, and (3) systems implementation and review.

Systems analysis

The objective of the **systems analysis** phase is to gather facts that provide a thorough understanding of a business's ***information requirements*** and the ***sources of information***. A study of the organisation and how it functions is performed to determine the best combination of personnel, forms, records, procedures and equipment. The following must be considered: How is the business organised? Who is responsible for the various activities? What is the projected growth and direction of the business? What are management's plans for future changes in operations? What source documents, records, procedures, reports and equipment should be used?

In existing systems, much of the information required for systems analysis may be available in the form of an operating manual or accounting manual — a detailed description of how the existing system should function.

Systems design

A new system is developed or improvements are made to an existing system in the **systems design** phase based on the facts gathered through systems analysis. A team approach using accountants, managers, engineers, computer experts and other specialists is often required in the design of an accounting system.

The design must include a consideration of the ***personnel*** required to operate the system, the ***source documents*** needed to record transactions, the ***accounting records*** and ***procedures*** to be used to process data, ***job descriptions*** for personnel, the ***reports*** to be prepared for interested parties and ***any automated features*** of the system. The basic concern in the design phase is to develop an accounting system with the most ***efficient flow of information***, ***given the funds committed to the system and the information requirements involved***. A fundamental part of the design phase is the development of reliable internal control (see p. 284).

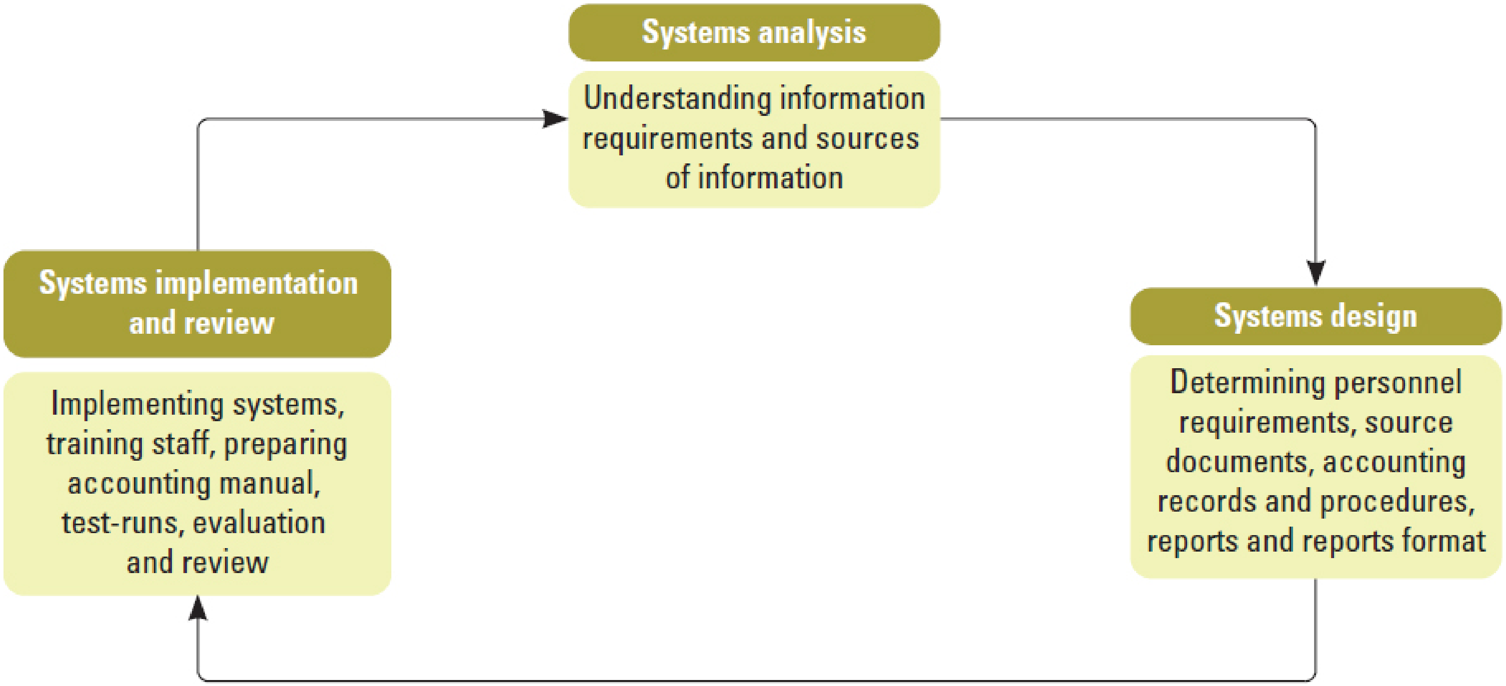
Systems implementation and review

Systems implementation and review is the final phase in the development or revision of an accounting system. This step involves the implementation of the decisions made during the design phase. The source documents, records and equipment chosen must be purchased. The personnel needed to operate the system must be selected, trained and supervised closely to ensure that they understand how the system should function. An accounting manual should be prepared as a formalised description of the procedures required to transform economic data into useful information.

When an existing system is being revised, the old system is often operated in parallel to the new one until management is certain that the new system is reliable. Any new accounting system should be tested thoroughly to be certain that its output is compatible with the desired results, and modifications made when necessary. Major reviews are usually accomplished gradually rather than all at once to help ensure reliable data flows.

The phases in developing an accounting system are summarised in figure 7.2.

Figure 7.2 Phases in the installation or revision of an accounting system



Important considerations in developing an accounting system

When developing a new accounting system or expanding an existing one there are a number of important system considerations. These considerations are discussed below.

Cost versus benefits

The value of the benefits that will flow from the established system ***must*** exceed the costs of designing, implementing and maintaining the system. The major benefit comes from the output of the system, which provides timely, reliable and relevant information to managers to ensure that they are able to make business decisions — planning (preparation of budgets), reviewing and controlling operations. Other benefits are the capacity to report to owners, and to meet the reporting requirements of legislative authorities.

Apart from the obvious development costs of systems analysis and design, and the everyday operating costs of the system including personnel, any system has the potential to incur intangible costs such as those that result from poor managerial decisions flowing from inadequate information, e.g. lost revenues and growth opportunities.

At all times management must ensure that the appropriate balance between system benefits and costs is maintained.

Compatibility

An accounting system must be compatible with the organisational and personnel characteristics of the business. The system should be appropriate to the size and nature of the business operations, e.g. the system used by a mining company would not be compatible with the system requirements of a small service partnership, nor would the accounting system used by JB Hi-Fi Limited be appropriate for a small retail operation. Similarly, a system used by a single-product local business would not be appropriate for a multiproduct business operating interstate and/or overseas.

The qualifications, competencies, and behavioural characteristics of the personnel responsible for the day-to-day operation of the system must be compatible with the accounting system. Those responsible for recruiting staff must ensure that people have appropriate qualifications and experience, and are appropriately trained and supervised.

Flexibility/adaptability

The life cycle of a business is one of constant change. Growing businesses develop and offer new products, expand into new markets, take over existing businesses, dispose of parts of the business, and restructure. The accounting system must adapt to these changes. Flexibility within an accounting system allows these structural changes to take place without major disruptions to business operations.

Internal control

An accounting system must have adequate controls built into the system. The system must provide mechanisms for the protection of the assets of the business and ensure that information provided by the system is timely, reliable and relevant to the decision-making needs of management and external users. Such a system is known as a system of internal control — this is treated more fully in the next section.

LEARNING CHECK

- ☐ The three phases of the operation of an accounting system are input, processing and output.
- ☐ Data are recorded facts; information is data that have been processed in some way to provide useful information to the user.
- ☐ The installation of an accounting system consists of three phases: systems analysis, systems design, and systems implementation and review.
- ☐ Four important considerations in establishing an accounting system are cost versus benefits, compatibility with the organisation and personnel of the business, flexibility to adapt to expansion and changes in the business, and an effective system of internal control.

7.2 Internal control systems

LO 2 **Identify the principles and the limitations of internal control systems.**

The efficient use and protection of an entity's assets is a primary management function. In a sole trader business, the owner often controls the entire operation through direct involvement in all activities of the business. As the business grows, the owner must place increasing reliance on others to help manage and control operations. A system designed to help managers control operations is called an **internal control system**.

Internal control systems defined

All procedures adopted by an entity to control its activities and protect its assets are described collectively as a system of internal control.

At this point, it is important to appreciate the relationship of internal control to an accounting system. One of the main objectives of internal control is to ensure the ***reliability*** of accounting information. As we have seen, financial data are transformed into information with a number of accounting procedures such as preparing source documents, analysing transactions, recording transactions, posting to ledger accounts, and generating financial reports. A sound system of internal control ensures that these accounting procedures are performed correctly so that the resulting information is relevant and provides a faithful representation of the entity's underlying economic events.

A system of internal control consists of all the measures used by a business:

- to safeguard its resources against waste, fraud and inefficiency
- to promote the reliability of accounting data
- to encourage compliance with business policies and government regulations.

There are two aspects to internal control: (1) administrative controls and (2) accounting controls. ***Administrative controls*** are those established to provide operational efficiency and adherence to prescribed policies, such as a written directive identifying the standards to be followed in hiring new employees, manuals identifying purchasing and sales procedures, and various performance reports required from employees.

Accounting controls are the methods and procedures used to protect assets and ensure the reliability of accounting records, such as procedures for the authorisation of transactions and the separation of record-keeping duties from custodianship of the entity's assets. Accounting controls are designed to provide reasonable assurance that:

- transactions are carried out in accordance with management's general or specific authorisation
- transactions are recorded as necessary (a) to permit preparation of financial statements that conform with appropriate accounting standards and (b) to maintain accountability for assets
- access to assets is permitted only in accordance with management's authorisation
- the accounting records for assets are compared with the physical assets at reasonable intervals and appropriate action is taken with respect to any differences.

Principles of internal control systems

In systems of internal control, several important principles are followed to achieve adequate administrative and accounting controls. Some of these important principles are discussed below.

Clearly established lines of responsibility

Control ultimately involves people, since individuals carry out business transactions, record the transactions and handle the assets resulting from those transactions. Thus the cornerstone of a good internal control system is the employment of competent personnel and assignment of responsibilities to them. Responsibility should be commensurate with ability and authority, and employees should have a clear understanding of their responsibilities.

Responsibility must be assigned so that there are no overlapping or undefined areas. If two or more employees share the same responsibility and something goes wrong, it is very difficult to determine who is at fault and therefore difficult to take corrective action. If two or more employees use the same cash register, for example, each should be assigned a separate drawer and register key or PIN so that any errors or cash shortages can be identified with individuals on a daily basis.

Responsibilities and duties should be rotated among employees periodically so that they can become familiar with the entire system. Rotation of duties also tends to discourage deviation from prescribed procedures since employees know that other employees may soon be taking over their duties and reviewing their activities.

Separation of record keeping and custodianship

Whenever possible, responsibility for initiating business transactions and for custody of the entity's assets should be separated from responsibility for maintaining the accounting records. This helps avoid the misappropriation or misuse of assets. The person with custody of an asset is unlikely to misappropriate or misuse it when a record of the asset is kept by another employee. A theft of the asset and falsification of records to cover up the theft would therefore require collusion between the two employees.

Division of responsibility for related transactions

To minimise the possibility of errors, fraud and theft, responsibility for a series of related transactions should be divided among two or more employees or departments so that the work of one employee acts as a check on the work of another. For example, if one employee orders goods, receives the goods and pays the supplier, that employee might be tempted to order goods for personal use, have the goods delivered to his or her home and pay for them from business funds.

To avoid such potential abuses, authority for ordering goods should be placed with a purchasing department, the goods should be physically received by a separate receiving department, and payment for the order should be performed by a third department or employee. Documents (purchase orders, receiving reports, invoices) showing the work done by each department or employee are then sent to the accounting department for recording purposes. In this way, the work of each employee acts as a check on the work performed by others.

Mechanical and electronic devices

Mechanical and electronic devices designed to protect assets and to improve the accuracy of the accounting process, although not infallible, should be used wherever feasible. Such devices can be programmed to minimise the likelihood of errors, both intentional and unintentional, occurring in the accounting records. Cash registers provide an accurate record of cash sales, produce a receipt for the customer and protect the cash received. A safe or vault protects cash on hand and important documents. Measuring devices such as those used to measure metres of cloth and litres of fuel sold are other examples of devices used to strengthen internal control. Product code readers at checkout points in supermarkets are also designed to minimise errors.

Adequate insurance

Adequate insurance of an entity's assets to protect them against loss, theft or damage is important. If assets are fully insured, their recovery or replacement is assured. It is also possible to insure against loss of profits resulting from loss or destruction of business assets.

Internal auditing

Many entities have internal auditors who are employees of the entity and who are responsible for a continuing review and study of the internal control system. Non-compliance with established procedures and suggestions for improving the system are reported to top management. Internal auditors also help the external auditor who conducts the annual audit.

Programming controls

In computerised accounting systems, programming controls are usually built into the system. The system can confirm that processing of data has been carried out in correct sequence, highlight where transaction debits do not equal credits, and provide proof of mathematical calculations. One of the great challenges facing computer programmers today is to build in controls that limit unauthorised and unintentional interference in the system. Computer hackers, viruses and spyware continue to pose a real threat to the integrity of an entity's internal control system.

Physical controls

Physical controls relate to the safeguarding of physical assets, such as a safe to hold cash and other valuable documents, lockable buildings and storage areas, external fencing, and employee identification cards. An entity may employ security staff during business hours, and engage security firms to provide property surveillance after hours.

Other controls

Other control measures include the use of prenumbered documents, the rotation of employees over a range of jobs, and requiring all employees to take annual leave. The prenumbering of documents, such as cheques and sales invoices, enables all documents to be accounted for and prevents the same document from being used more than once.

BUSINESS KNOWLEDGE

Fraud's no cheap trick

Businesses have lost more than $373 million to fraud over the last two years and that's considered only a sliver of actual losses, KPMG says.

KPMG's national head of forensic, Gary Gill, says the firm's biannual survey of business fraud shows almost half its respondents have suffered fraud but only 15 per cent see it as a risk.

'The $373 million figure is of particular concern,' he says. 'We believe it is only a fraction of the actual cost of fraud as many incidences of fraud go undetected or unreported.'

And the warning is clear — be wary of the people you trust the most.

'Fraud committed by people within an organisation — the people you tend to trust — is the real concern for Australia,' the report says.

'Overseas, the headline cases of fraud in recent years, including rogue trading and manipulation of interest rates, have mostly been internally perpetrated. The clear lesson is that internal controls need to be more robust.

'(But) there is more collusion between employees and third parties than between internal parties, and, in 2012, external parties were responsible for 74 per cent of fraud by value in the finance sector (and) 69 per cent in the non-finance sector.' Management fraud usually turns to false invoicing, non-management fraud to theft of cash, and external fraud to tendering, the report says.

Small businesses may, however, take some comfort from the results.

Only 9 per cent of businesses with fewer than 100 employees have experienced fraud, rising to 31 per cent of businesses with 101–500 employees.

Almost half (45 per cent) of businesses with more than 500 employees suffer from the fallout of fraud.

Most fraudsters are motivated by personal financial pressure (36 per cent, up from 3 per cent in 2010, the report says. The results raise the concern that businesses aren't doing enough at an early stage.

About half (49 per cent) the respondents either ignored red flags or were uncertain.

'The critical issue to discern is whether the warnings were seen and simply ignored or whether personnel did not recognise the looming problem,' the report says. 'If the… former, organisations may need to reconsider the effectiveness of their fraud reporting channels. If the… latter, better fraud awareness training may be warranted.'

Internal and unannounced audits as well as external reporting procedures are the top methods for detecting fraud.

Fraud: where the money goes

49%	Non-management
19%	Manager
25%	External
7%	Senior executive

Source: Emmerson, R 2013, ‘Fraud’s no cheap trick’, ***The Courier Mail***, 24 February.

Limitations of internal control systems

All systems of internal control are generally established to provide a high level of assurance that the assets of an entity are safeguarded and that the accounting data are reliable. All systems of internal control have limitations, including the following.

- It is not possible to obtain absolute assurance that assets are safeguarded and accounting data are reliable because the costs of establishing such a system would exceed the benefits expected to be derived. For example, in an effort to reduce shoplifting, it is not cost-effective to have security staff search all customers as they leave the premises — such a procedure could draw a negative reaction from customers, leading to significant loss of business. Instead, large retail stores have resorted to other methods to improve security, such as signs saying ‘bags may be examined’ and that shoplifters will be prosecuted, electronic sensing devices at shop exits, and supervision of customer activity by cameras, store detectives and/or security staff.
- The size of the entity’s operations can influence the effectiveness of internal controls. For example, it is not cost-effective, or indeed possible, for a small corner store operation to have the same internal control system as a large company such as JB Hi-Fi Limited. Many of the principles of internal control have to be compromised in smaller operations.
- Good internal control systems can also break down because of tiredness, indifference to work, or carelessness on the part of employees.
- Since most systems of internal control rely heavily on the segregation of duties of employees, the controls can be negated by collusion of two or more employees. In the short term at least, this could result in the misappropriation of assets and the accompanying adjustment of records to conceal the crime.
- Computer fraud is prevalent in computerised accounting systems. Such frauds are usually perpetrated by people within the system itself and do not involve other employees of the business. Such negating of the inbuilt system controls is thus very difficult to discover. It is generally conceded today that, for each computer fraud exposed, many more go undetected.

LEARNING CHECK

☐ A system of internal control encompasses all procedures adopted by an entity to control its activities and protect its assets.

☐ Administrative controls refer to operational efficiency and adherence to prescribed policies. Accounting controls refer to methods used to protect assets and ensure the reliability of accounting records.

☐ Among the principles of internal control systems are lines of responsibility, separation of record keeping and custodianship, division of responsibility for related transactions, mechanical and electronic devices, insurance, internal auditing, programming controls and physical controls.

☐ Limitations of internal control systems include high costs, breakdown of systems, employee collusion and computer fraud.

7.3 Manual accounting systems — subsidiary ledgers

LO 3 Record appropriate transactions in subsidiary ledgers, and reconcile each ledger with the appropriate control account in the general ledger.

Although the number of businesses using a manual accounting system has decreased significantly in recent years because computers and software have become more affordable, a thorough knowledge of manual accounting systems is vital to understanding how computerised accounting systems work.

In earlier chapters, we illustrated basic accounting procedures by recording each transaction with an entry in a general journal and later posting each debit and credit to an appropriate account in the general ledger. We now extend this basic version of a manual accounting system to one that is more streamlined and efficient.

The design, structure and operation of both manual and computerised accounting systems are essentially the same. A working knowledge of the manual accounting process is essential in order to operate a computerised accounting system effectively. For example, if a data entry operator has incorrectly coded transactions, an accountant needs to know what entries need to be recorded to correct the coding errors.

Non-accountants who understand the accounting system are more likely to recognise errors in computer-generated accounting reports they are using if they understand the relationship between the transactions they are responsible for and how the accounting system will process them.

Although we describe the systems of subsidiary ledgers and special journals in a manual accounting system context, similar subsidiary ledgers are used in computerised systems and similar special journals may be produced. Some computerised accounting systems do not require the use of special journals at all, but such journals can be produced for transaction summary purposes if required.

Control accounts and subsidiary ledgers

The coverage so far of a ledger as an essential part of an accounting system has been limited to one general ledger. For more timely and efficient processing, the use of subsidiary ledgers and control accounts in the general ledger is more appropriate.

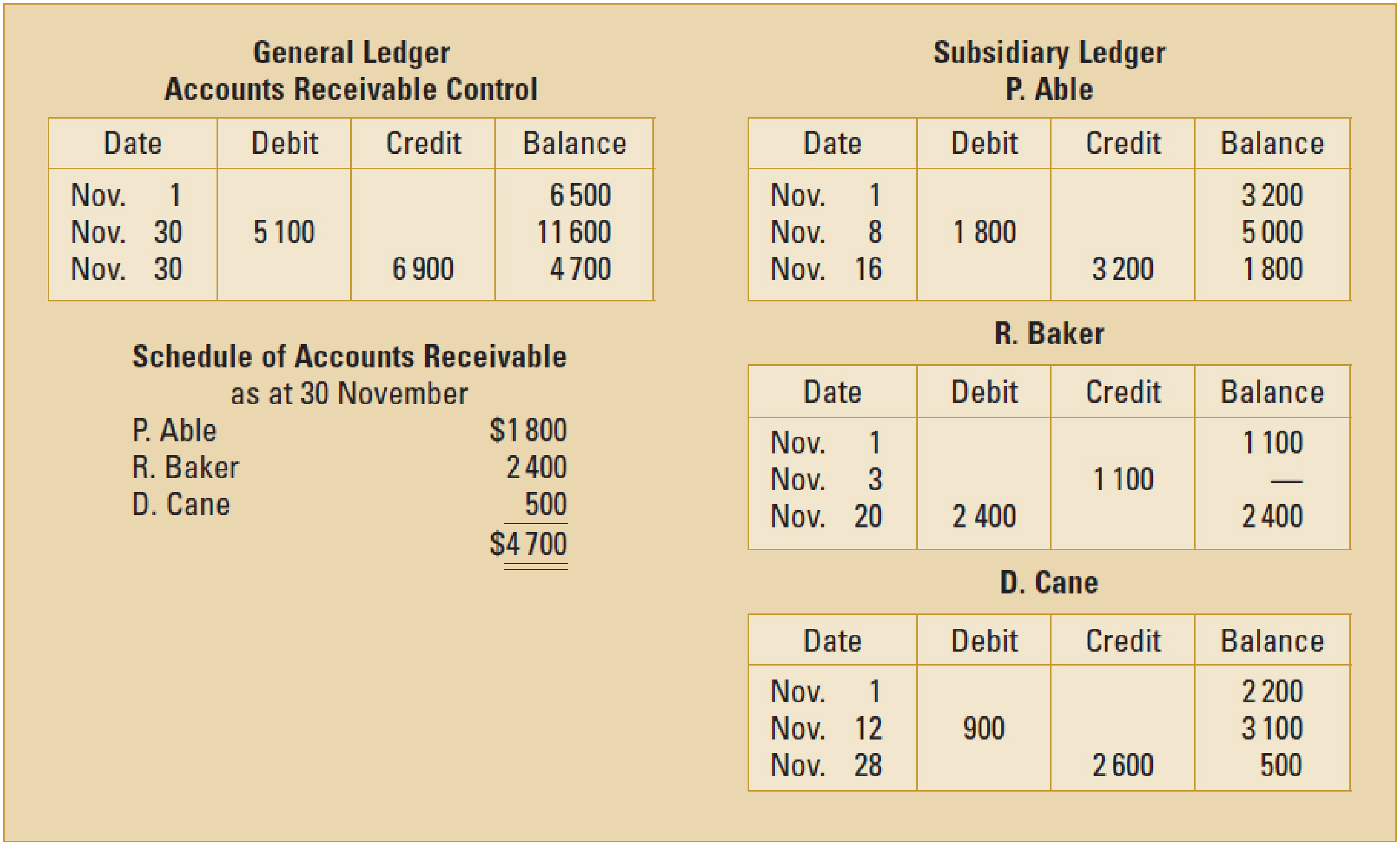
To illustrate, assume that a business sells goods on credit to 5000 customers. If the entity used only one general ledger Accounts Receivable or Trade Debtors account it would not provide adequate detail concerning the amounts of inventory sold to individual customers, amounts of money received from them, and amounts still owed by them. Consequently, the entity needs to establish a separate receivable account for each customer. If this is done in the general ledger, 5000 accounts will have to be established and combined with the other assets, liabilities, equity, income and expenses. As a result, the general ledger will be unwieldy, and the likelihood of errors will be high. The trial balance prepared from such a large general ledger will also be very long and difficult to work with. This is complicated further by the fact that other general ledger accounts, such as Accounts Payable (or Trade Creditors) and Inventory (perpetual system), require the same detailed information.

When a large amount of detailed information about a certain general ledger account must be kept, a separate ledger called a **subsidiary ledger** is used. With this, the detailed information is recorded ***outside*** the general ledger in a group of individual accounts, the total of the balances of which should equal the balance of the related **control account** in the general ledger. One Accounts Receivable Control account (a summary of all receivables transactions) can be used in the general ledger and an individual receivable account can be established for each customer (5000 in the case above) in one subsidiary ledger. Unlike the general ledger where the double-entry recording system is used and the sum of the debit entries must equal the sum of the credit entries, the subsidiary ledger provides detailed memoranda on the receivables and there is no need for the equality of debits and credits.

The principle of control accounts and subsidiary ledgers is used for a number of other general ledger accounts such as Accounts Payable, Inventory (perpetual, see chapter 6), Marketable Securities, Plant and Equipment, and Investments. Accounts Receivable is used here to demonstrate this principle.

To illustrate the relationship between Accounts Receivable as a control account and its subsidiary ledger, consider figure 7.3, which summarises the November sales and cash receipts activities of an entity with only three customers, given their beginning-of-the-month account balances.

Figure 7.3 Relationship between general ledger and subsidiary ledger



General Ledger
Accounts Receivable Control

Date	Debit	Credit	Balance
Nov. 1			6 500
Nov. 30	5 100		11 600
Nov. 30		6 900	4 700

Schedule of Accounts Receivable
as at 30 November

P. Able	$1 800
R. Baker	2 400
D. Cane	500
	$4 700

Subsidiary Ledger
P. Able

Date	Debit	Credit	Balance
Nov. 1			3 200
Nov. 8	1 800		5 000
Nov. 16		3 200	1 800

R. Baker

Date	Debit	Credit	Balance
Nov. 1			1 100
Nov. 3		1 100	—
Nov. 20	2 400		2 400

D. Cane

Date	Debit	Credit	Balance
Nov. 1			2 200
Nov. 12	900		3 100
Nov. 28		2 600	500

The accounts receivable subsidiary ledger is an alphabetical file with a separate account for each customer. Note that at the beginning and end of November the totals of the subsidiary ledger accounts are in agreement with the Accounts Receivable Control account in the general ledger.

Note the following features of the illustration in figure 7.3, which apply regardless of the number of accounts in the subsidiary ledger.

1. The opening balance on 1 November of the Accounts Receivable Control account ($6500) is the total of all the opening balances of the individual accounts receivable accounts ($3200 + $1100 + $2200).

2. The total debit of the Accounts Receivable Control account ($5100) is the total of all the debits (e.g. credit sales) made in the individual accounts receivable accounts ($1800 + $2400 + $900).
3. The total credit of the Accounts Receivable Control account ($6900) is the total of all the credits (e.g. cash received) made in the individual accounts receivable accounts ($3200 + $1100 + $2600).
4. The closing balance on 30 November of the Accounts Receivable Control account ($4700) is the total of all the closing balances of the individual accounts receivable accounts ($1800 + $2400 + $500).

Note also that debit and credit postings in the control account are end-of-month summary postings, whereas the debit and credit postings to the individual accounts receivable accounts are detailed postings done daily throughout the month. Since these postings are done by different accounting personnel, reconciling the subsidiary ledger balances with the balance of the control account provides an element of control within the system. Furthermore, a schedule of accounts receivable balances is prepared at a certain date and compared with the balance of the Accounts Receivable Control account as part of the reconciliation process. A computerised accounting system automatically ensures that the subsidiary ledger is in agreement with the control account, and the preparation of a schedule is not required.

The use of a subsidiary ledger has three major advantages: (1) it relieves the general ledger of a mass of detail; (2) it allows a division of labour among accounting staff in maintaining the ledgers; and (3) it provides effective internal control through periodic comparison of the total of the schedule of the subsidiary ledger with the balance in the appropriate control account.

Thus, although a business has only one general ledger, it can have a large number of subsidiary ledgers.

LEARNING CHECK

☐ Subsidiary ledgers record detailed information in accounts outside the general ledger.
☐ Control accounts are summary general ledger accounts supported by the detail of a subsidiary ledger.
☐ The use of a subsidiary ledger (1) relieves the general ledger of a mass of detail, (2) allows division of labour among staff maintaining the ledgers, and (3) provides effective internal control through periodic comparison of the schedule of the subsidiary ledger with the balance in the control account.

7.4 Manual accounting systems — special journals

LO 4 Record transactions for sales, purchases, cash receipts and cash payments in special journals and understand the purpose and use of the general journal when special journals are used.

The general journal described in earlier chapters can be used to record all types of transactions — sales, purchases, cash receipts, cash payments, sales returns and allowances, and purchases returns and allowances. The universal nature of the general journal imposes some limitations that will adversely affect the efficiency of processing data. These are:

- each debit and credit recorded in the general journal must be posted individually, requiring a large amount of posting time, and this can make it difficult to provide accounting information on a timely basis

- only one person at a time can record the effects of transactions and post debits and credits to the ledger accounts, since all entries are recorded in one journal
- the general journal needs narrations to describe every transaction.

To avoid these limitations, transactions are grouped into categories according to the most common business transactions and a **special journal** is set up for each category. Most of the transactions of a retail business fall into four categories, which allows the use of four special journals:

Category of transaction	Special journal
Sales of inventory on credit	Sales journal
Purchases of inventory on credit	Purchases journal
Receipts of cash (all sources including cash sales)	Cash receipts journal
Payments of cash (all payments including cash purchases)	Cash payments journal

Special journals may also be used for returns and allowances of sales and purchases if they are sufficiently numerous. In this text, however, all returns and allowances will be processed through the general journal.

The combination of the four journals listed, together with a general journal for all other types of transactions, represents a much more efficient way to process data than the use of a general journal alone. The time required to journalise entries is reduced, and totals rather than individual entries can be posted to general ledger accounts in many cases, thus reducing the cost of accounting labour. The journals allow all necessary detail to be entered in subsidiary ledgers.

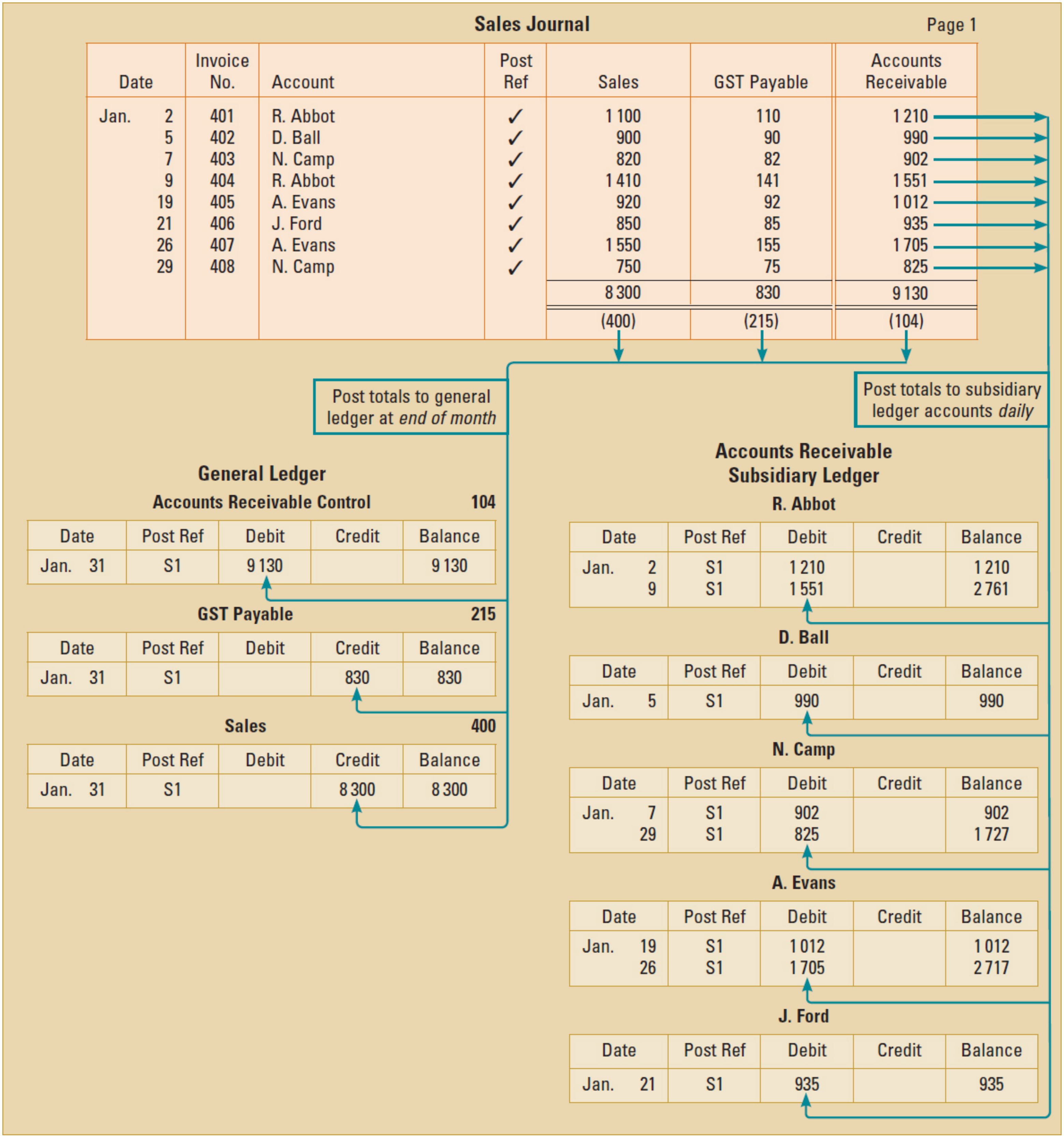
Also, duties can be efficiently divided by assigning different journals to different employees so that work can be performed concurrently. Several selected transactions involving Baldwin Video Equipment during the month of January illustrate the four special journals in this section. The formats used for the four special journals are typical but not unique. The nature of a given entity determines the exact formats required. For example, use of a perpetual inventory system rather than the periodic requires additional columns in most of the special journals.

Some computerised accounting systems do not require the use of special journals, as the computer can classify and enter data directly to the ledger. Transaction summaries that resemble special journals in appearance and content may be printed out.

Sales journal

A **sales journal** such as the one shown in figure 7.4 (p. 292) is used solely for recording sales of inventory on credit. (Cash sales are recorded in the cash receipts journal, and sales of non-current assets on credit are recorded in the general journal, as we shall see later.) As each credit sale occurs, several copies of a sales invoice are prepared to document the transaction. For GST-registered businesses, these must be tax invoices (see chapter 6).

Figure 7.4 Relationship of sales journal and ledger accounts



Sales Journal Page 1

Date	Invoice No.	Account	Post Ref	Sales	GST Payable	Accounts Receivable
Jan. 2	401	R. Abbot	✓	1 100	110	1 210
5	402	D. Ball	✓	900	90	990
7	403	N. Camp	✓	820	82	902
9	404	R. Abbot	✓	1 410	141	1 551
19	405	A. Evans	✓	920	92	1 012
21	406	J. Ford	✓	850	85	935
26	407	A. Evans	✓	1 550	155	1 705
29	408	N. Camp	✓	750	75	825
				8 300	830	9 130
				(400)	(215)	(104)

Post totals to general ledger at *end of month*

Post totals to subsidiary ledger accounts *daily*

General Ledger

Accounts Receivable Control 104

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1	9 130		9 130

GST Payable 215

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1		830	830

Sales 400

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1		8 300	8 300

Accounts Receivable Subsidiary Ledger

R. Abbot

Date	Post Ref	Debit	Credit	Balance
Jan. 2	S1	1 210		1 210
9	S1	1 551		2 761

D. Ball

Date	Post Ref	Debit	Credit	Balance
Jan. 5	S1	990		990

N. Camp

Date	Post Ref	Debit	Credit	Balance
Jan. 7	S1	902		902
29	S1	825		1 727

A. Evans

Date	Post Ref	Debit	Credit	Balance
Jan. 19	S1	1 012		1 012
26	S1	1 705		2 717

J. Ford

Date	Post Ref	Debit	Credit	Balance
Jan. 21	S1	935		935

The information shown on a sales invoice includes the customer’s name, date of sale, invoice number (usually prenumbered), amount of the sale and the credit terms. One copy of the invoice is used by the seller to record the sale in the sales journal. In figure 7.4, eight sales to five different customers have been recorded. All credit sales are made on the basis of 2/10, n/30.

Other columns can be added to the sales journal to satisfy the needs of a specific entity. If credit terms vary among customers, an additional column can be added to the sales journal to identify the terms of each sale.

The sales journal illustrated in figure 7.4 is suitable for use in an entity that maintains a periodic inventory system. For those entities using a perpetual inventory system, where two entries are made every time a sale is recorded (see chapter 6, p. 251), an additional column entitled 'cost of sales' is added to the journal. This column records the cost of sales at the same time as the credit sale is recorded (at selling price). It is assumed that Baldwin Video Equipment has an ABN and is registered for the GST.

Advantages of a sales journal

The sales journal shown in figure 7.4 has these time-saving advantages.

1. Each sales transaction is recorded on a ***single line***. All credit sales are alike in that they result in a debit to Accounts Receivable, a credit to Sales, and a credit to GST Payable (if applicable). Record-keeping efficiency is achieved by simply identifying the customer who is the debtor, instead of entering all the account titles — Accounts Receivable, Sales, and GST Payable — when

   the transaction is recorded in the general journal. In a perpetual inventory system, an additional column is used to record the cost of sales and reduction of the inventory balance.
2. The entries in the sales journal do not require a narration because (a) all the transactions involved are the same, and (b) the detailed information of each sale is documented on an invoice that is referenced in the second column of the sales journal. If more information concerning a particular sale is required, you can simply identify the invoice number or customer and refer to the details shown on the invoice.
3. Only the totals of sales, GST payable and amounts receivable from customers are posted to the general ledger. Note in figure 7.4 that the amount for total credit sales (including GST) of $9130 is posted to the Accounts Receivable Control account, total sales (exclusive of GST) is posted to the Sales account, and the total GST added to sales is posted to the GST Payable account. (The GST amounts are removed for businesses not registered for the GST.) This procedure eliminates posting separate debits and credits during the month. The sales information needed for each customer in the accounts receivable subsidiary ledger is posted daily from the line items of the sales journal. A tick is recorded in the 'Post Ref' (posting reference) column to indicate that each sale has been posted to the subsidiary ledger. The account numbers for Accounts Receivable Control (104), Sales (400), and GST Payable (215) are entered below the totals for the month to show they have been posted (e.g. monthly) to the general ledger accounts. A posting reference column is also included in the ledger accounts to indicate the source of the entries posted for cross-referencing purposes. The S1 refers to page 1 of the sales journal.

If additional columns are added to the sales journal to help in recording items associated with a particular sale, additional postings are necessary from those columns. If, in a perpetual inventory system, a 'cost of sales' column is used to record the cost of each sale made, postings are made daily to the inventory records in order to keep records of individual items up to date (see, for example, the posting for 'sales' on the inventory record in figure 6.6, p. 245), and the total of the column is posted twice — once to the Cost of Sales account, and once to the Inventory Control account, i.e. the control account in the general ledger for the inventory records in the subsidiary ledger. Completion of these postings is indicated by a tick in the post ref column. (Note that the amounts involved would all be exclusive of GST.)

Summary of sales journal procedures

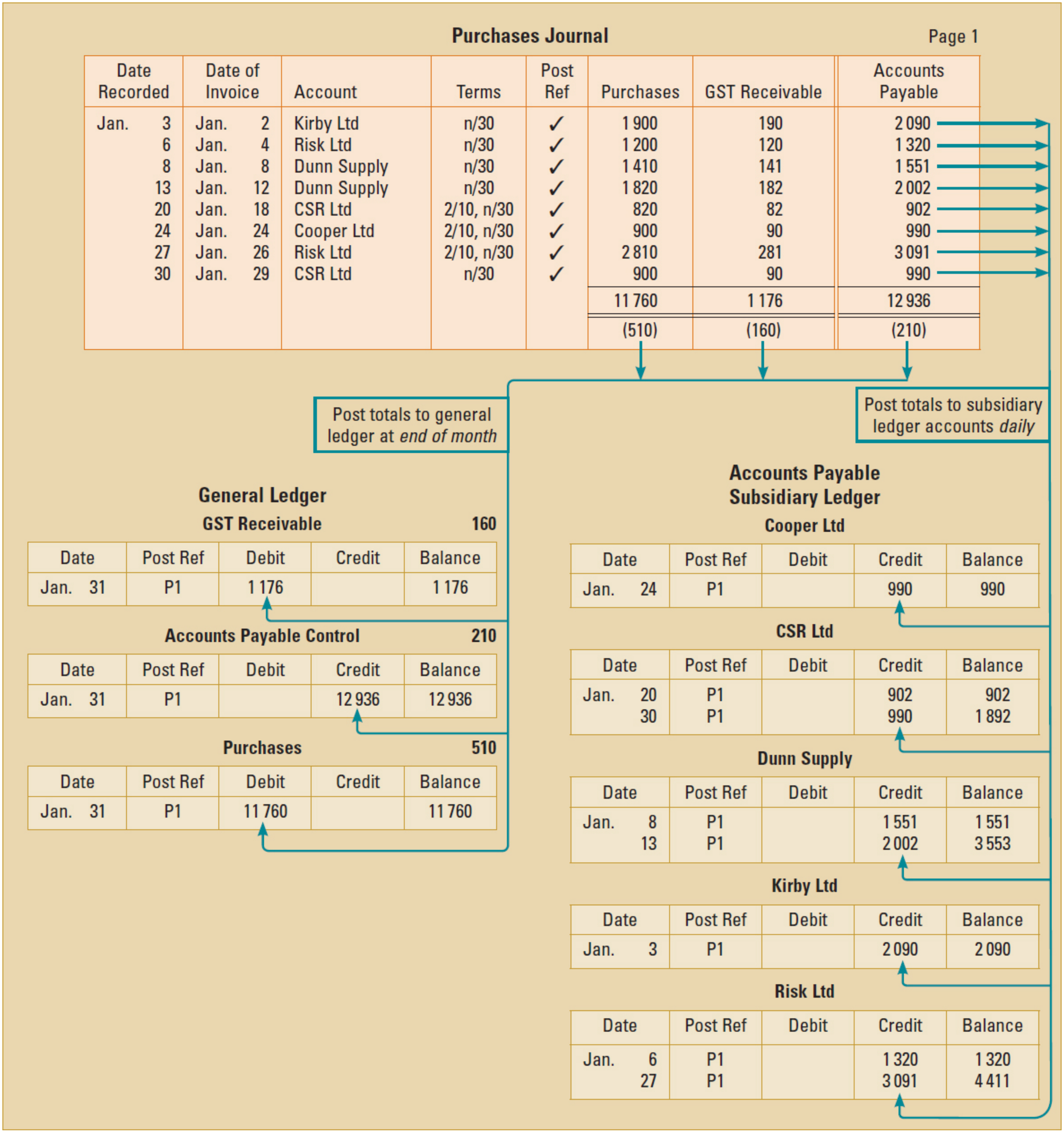
The procedures used with the sales journal illustrated in figure 7.4 can be summarised as follows (note that, in practice, steps 2 and 3 should be performed by different personnel).

1. From each sales invoice, enter the date of the sale, invoice number, customer's name and amount of sale on a line in the sales journal.
2. ***At the end of each day***, post each sale (the GST-inclusive amount) to the related customer's account in the subsidiary ledger. Place a tick (or an appropriate subsidiary ledger account number for that customer) in the post ref column of the sales journal and S1 (or appropriate page number) in the post ref column of the customer's account. Additional postings may be necessary if additional columns have been used as described above for the perpetual inventory system, where daily postings must be made to the appropriate inventory records in the subsidiary ledger from the cost of sales column of the sales journal.
3. ***At the end of each month***, total the accounts receivable column of the sales journal and post the total amount as a debit to the Accounts Receivable Control account in the general ledger. Total the sales and GST payable columns and post the amounts to the general ledger accounts Sales and GST Payable respectively. Place the appropriate general ledger account numbers (104/215/400) below the totals and S1 (or appropriate page number) in the post ref columns of the general ledger accounts. Additional monthly postings are necessary to the Inventory Control account from the cost of sales column if a perpetual inventory system is used.
4. Add the account balances of the accounts receivable subsidiary ledger to verify that the total is equal to the Accounts Receivable Control account balance in the general ledger. In figure 7.4, the amount involved is $9130. Similar procedures are used as well for inventory if a perpetual inventory system is being used.

Purchases journal

The **purchases journal** can be set up as either a single-purpose or a multipurpose journal. In either case, the purchases of inventory must be recorded separately from the acquisition of other assets because, as we have seen earlier, the total purchases of inventory for a period are used to calculate cost of sales. A single-purpose purchases journal such as that shown in figure 7.5 is used solely for recording the purchases of inventory on credit, assuming a periodic inventory system. Cash purchases of inventory are recorded in the cash payments journal, as discussed later. Other purchases, such as the acquisition of a motor vehicle or a computer, are recorded in some other journal, determined by the means of payment involved. If such assets are acquired for cash, the transactions are recorded in the cash payments journal; if purchased on credit, they are recorded in the general journal.

Figure 7.5 Relationship of purchases journal and ledger accounts



Purchases Journal Page 1

Date Recorded	Date of Invoice	Account	Terms	Post Ref	Purchases	GST Receivable	Accounts Payable
Jan. 3	Jan. 2	Kirby Ltd	n/30	✓	1 900	190	2 090
6	Jan. 4	Risk Ltd	n/30	✓	1 200	120	1 320
8	Jan. 8	Dunn Supply	n/30	✓	1 410	141	1 551
13	Jan. 12	Dunn Supply	n/30	✓	1 820	182	2 002
20	Jan. 18	CSR Ltd	2/10, n/30	✓	820	82	902
24	Jan. 24	Cooper Ltd	2/10, n/30	✓	900	90	990
27	Jan. 26	Risk Ltd	2/10, n/30	✓	2 810	281	3 091
30	Jan. 29	CSR Ltd	n/30	✓	900	90	990
					11 760	1 176	12 936
					(510)	(160)	(210)

Post totals to general ledger at *end of month*

Post totals to subsidiary ledger accounts *daily*

General Ledger

GST Receivable 160

Date	Post Ref	Debit	Credit	Balance
Jan. 31	P1	1 176		1 176

Accounts Payable Control 210

Date	Post Ref	Debit	Credit	Balance
Jan. 31	P1		12 936	12 936

Purchases 510

Date	Post Ref	Debit	Credit	Balance
Jan. 31	P1	11 760		11 760

Accounts Payable Subsidiary Ledger

Cooper Ltd

Date	Post Ref	Debit	Credit	Balance
Jan. 24	P1		990	990

CSR Ltd

Date	Post Ref	Debit	Credit	Balance
Jan. 20	P1		902	902
30	P1		990	1 892

Dunn Supply

Date	Post Ref	Debit	Credit	Balance
Jan. 8	P1		1 551	1 551
13	P1		2 002	3 553

Kirby Ltd

Date	Post Ref	Debit	Credit	Balance
Jan. 3	P1		2 090	2 090

Risk Ltd

Date	Post Ref	Debit	Credit	Balance
Jan. 6	P1		1 320	1 320
27	P1		3 091	4 411

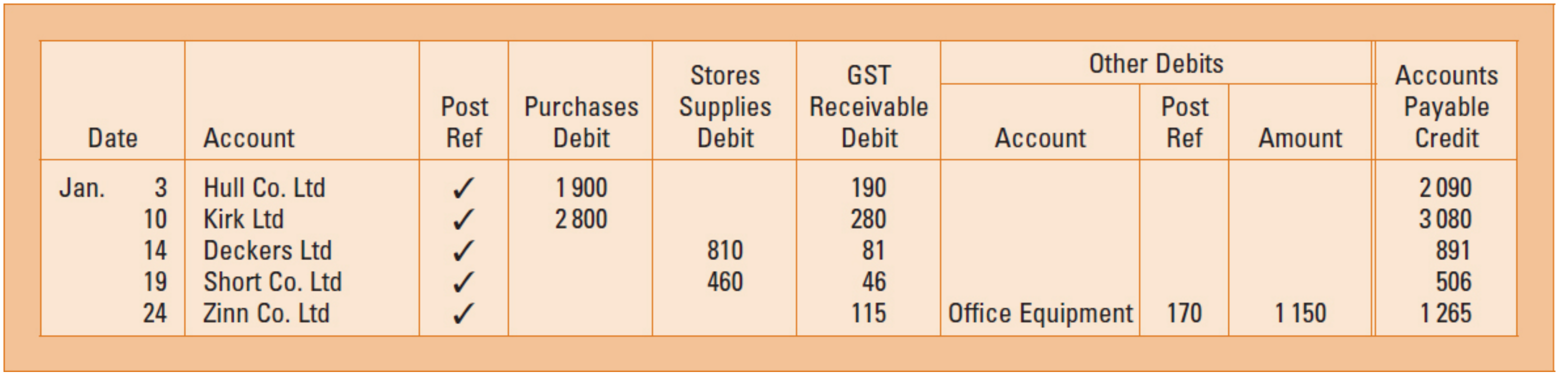
The advantages of and procedures required for a single-purpose purchases journal are similar to those described earlier for a sales journal. Recall from the discussion in chapter 6 that the purchase of inventory on credit with a periodic inventory system is recorded with a debit to Purchases and a credit to Accounts Payable. A periodic inventory system is illustrated in figure 7.5. If a perpetual inventory system is used, the debit for purchases goes to the Inventory Control account and individual inventory records in the subsidiary ledger are updated daily.

The account credited on each line item of a purchases journal is an account payable with a particular creditor to whom the business has an obligation. A subsidiary ledger is maintained to provide the detailed information concerning each individual account payable. An Accounts Payable Control account also is established in the general ledger. The procedures used with a single-purpose purchases journal, as illustrated in figure 7.5 for a periodic inventory system, can be summarised as follows (note that steps 2 and 3 would normally be performed by different personnel).

1. From the tax invoice received from the supplier, enter the recording date, invoice date, supplier's name, credit terms if applicable, and the dollar amounts of the purchase and GST on a single line of the journal.
2. ***At the end of each day***, post each purchase for the full amount owing, including GST, to the related supplier's account in the subsidiary ledger. Place a tick (or an appropriate subsidiary ledger account number for that supplier) in the post ref column of the purchases journal and P1 (indicating page 1 of the purchases journal in this case) in the post ref column of the creditor's account. These posting reference marks indicate that the journal entry has been posted and identify the source of the entry.
3. ***At the end of each month***, total the amount columns of the purchases journal and post the total of the accounts payable column as a credit to the Accounts Payable Control account in the general ledger. Post the totals of the purchases and GST receivable columns as debits to the general ledger accounts Purchases and GST Receivable respectively. Place the general ledger account numbers (510/160/210) below the relevant totals and P1 in the post ref columns of the general ledger accounts.
4. Add the account balances of the accounts payable subsidiary ledger to verify that the total is equal to the Accounts Payable Control account balance in the general ledger. In figure 7.5, the total amount is $12 936.

A single-purpose purchases journal can be expanded to a multipurpose format such as the one shown in figure 7.6. This journal has a single credit column for accounts payable and several debit columns for purchases of inventory (periodic inventory system), purchases of store supplies, and other debits. The 'other debits' column can be used to record such things as the acquisition of equipment or freight inwards charges.

Figure 7.6 Multipurpose purchases journal



Date	Account	Post Ref	Purchases Debit	Stores Supplies Debit	GST Receivable Debit	Other Debits			Accounts Payable Credit
						Account	Post Ref	Amount	
Jan. 3	Hull Co. Ltd	✓	1 900		190				2 090
10	Kirk Ltd	✓	2 800		280				3 080
14	Deckers Ltd	✓		810	81				891
19	Short Co. Ltd	✓		460	46				506
24	Zinn Co. Ltd	✓			115	Office Equipment	170	1 150	1 265

All the transactions recorded in this journal will involve credit rather than cash because of the single accounts payable credit column. The recording and posting procedures with a multipurpose purchases journal are similar in principle to those described for the cash journal covered on the following pages.

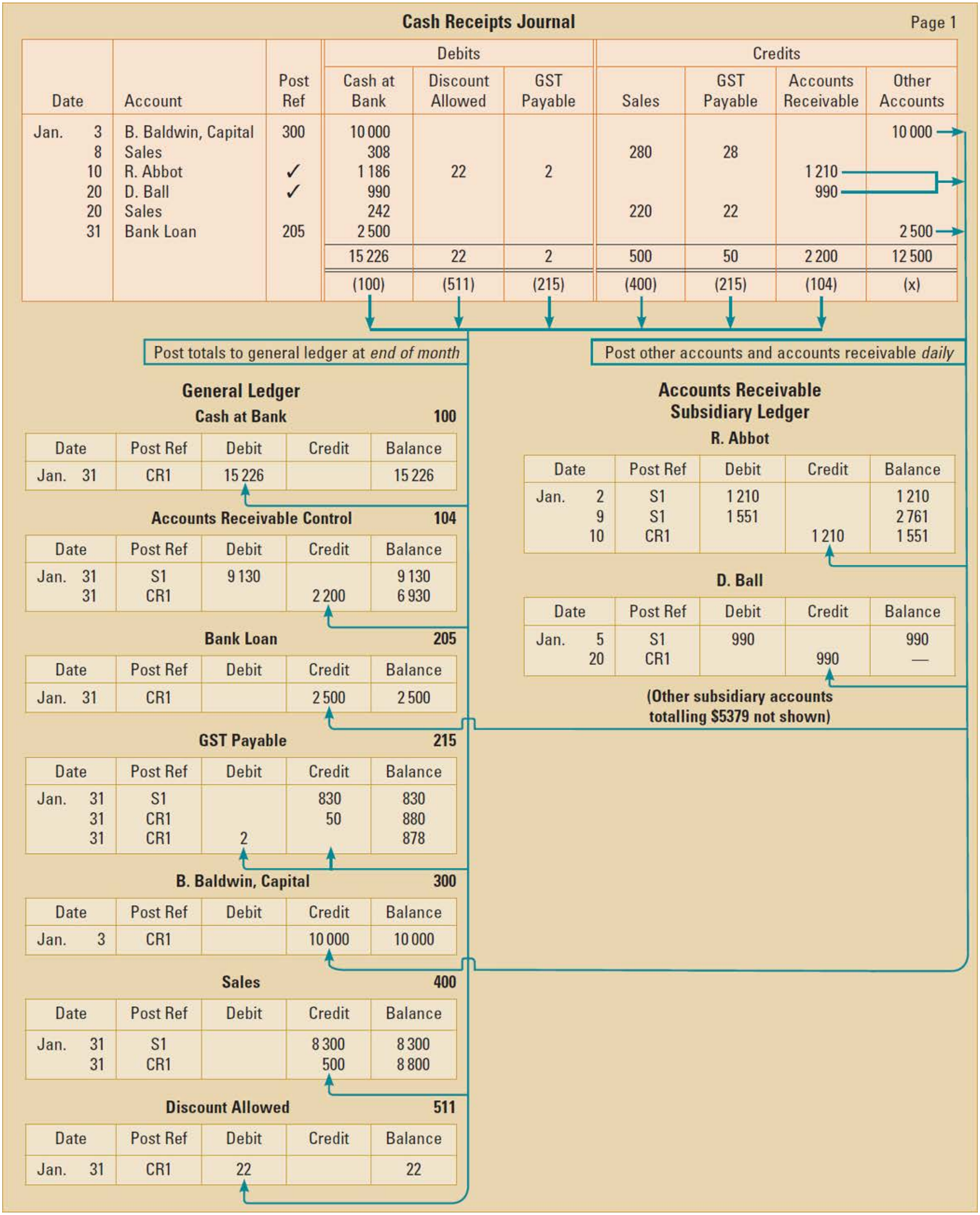
Cash receipts journal

The **cash receipts journal** is used to record all transactions involving the receipt of all forms of cash (a debit to Cash at Bank). Typical sources of cash are the sale of goods for cash, the collection of accounts receivable, capital invested by owners, and borrowings.

Daily banking of cash receipts is important for internal control. All receipts for a day are checked against appropriate documents, deposit slips are prepared, and the deposits are taken to the bank or placed in a night-safe. A common source of receipts is accounts receivable, and a discount is often allowed. The typical cash receipts journal therefore has at least two money columns, one to record the daily receipts and deposits to the bank and one to record discount allowed to customers. The totals of these columns are debited to the Cash at Bank and Discount Allowed accounts respectively. If the business is registered for the GST, an additional column for GST payable is required to record the write-back of the GST included in the allowance for prompt payment (see chapter 6 for details).

Since the totals of the cash at bank, discount allowed, and GST payable columns are debited to accounts in the general ledger, corresponding credits for the amount of the total of these three debits must be made in general ledger accounts. These credits can be posted individually from the account column of the journal (see figure 7.7). Where the receipts from a particular source are numerous, such as cash sales, GST payable on cash sales, and accounts receivable, processing is made more efficient by having additional columns in which receipts relating to particular activities can be recorded.

Figure 7.7 Relationship of cash receipts journal and ledger accounts



Cash Receipts Journal

Page 1

Date	Account	Post Ref	Debits Cash at Bank	Discount Allowed	GST Payable	Credits Sales	GST Payable	Accounts Receivable	Other Accounts
Jan. 3	B. Baldwin, Capital	300	10 000						10 000
8	Sales		308			280	28		
10	R. Abbot	✓	1 186	22	2			1 210	
20	D. Ball	✓	990					990	
20	Sales		242			220	22		
31	Bank Loan	205	2 500						2 500
			15 226	22	2	500	50	2 200	12 500
			(100)	(511)	(215)	(400)	(215)	(104)	(x)

Post totals to general ledger at *end of month*

Post other accounts and accounts receivable *daily*

General Ledger

Cash at Bank **100**

Date	Post Ref	Debit	Credit	Balance
Jan. 31	CR1	15 226		15 226

Accounts Receivable Control **104**

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1	9 130		9 130
31	CR1		2 200	6 930

Bank Loan **205**

Date	Post Ref	Debit	Credit	Balance
Jan. 31	CR1		2 500	2 500

GST Payable **215**

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1		830	830
31	CR1		50	880
31	CR1	2		878

B. Baldwin, Capital **300**

Date	Post Ref	Debit	Credit	Balance
Jan. 3	CR1		10 000	10 000

Sales **400**

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1		8 300	8 300
31	CR1		500	8 800

Discount Allowed **511**

Date	Post Ref	Debit	Credit	Balance
Jan. 31	CR1	22		22

Accounts Receivable Subsidiary Ledger

R. Abbot

Date	Post Ref	Debit	Credit	Balance
Jan. 2	S1	1 210		1 210
9	S1	1 551		2 761
10	CR1		1 210	1 551

D. Ball

Date	Post Ref	Debit	Credit	Balance
Jan. 5	S1	990		990
20	CR1		990	—

(Other subsidiary accounts totalling $5379 not shown)

The following cash receipts transactions for Baldwin Video Equipment provide the basis for the entries in figure 7.7.

1. The owner of the business, Barbara Baldwin, invested $10 000 of her own cash on 3 January, and this was deposited in the bank account of the business as capital (GST-free).
2. Video equipment was sold for $280 (plus GST) cash on 8 January.
3. Received payment from R. Abbot for an 8-day-old account receivable of $1210 less a 2% discount of $24 (includes $2 GST) on 10 January, i.e. $1186 cash was received. Credit terms were 2/10, n/30 and the cash was received within 10 days.
4. Received payment from D. Ball for a 15-day-old account receivable of $990 on 20 January. No discount was involved since the cash was not received within 10 days.
5. Video equipment was sold for $220 (plus GST) cash on 20 January.
6. The proceeds of a bank loan of $2500 were received on 31 January (GST-free).

At the end of the period, the totals of the columns in the journal can be credited to the appropriate accounts, so there is no need to post each receipt individually. This principle should become clear from the illustration. In the typical situation, four columns are used for the credit part of the posting process. These are sales, GST payable, accounts receivable and other accounts. The first three credit columns are used to record collections from cash sales, GST, and accounts receivable. All other sources of cash are entered in the fourth credit column.

Additional columns may be used to meet the needs of a particular entity if there are a sufficiently large number of debit postings to be made to particular accounts. Note that the order and arrangement can vary among entities. The three debit columns and four credit columns of the cash receipts journal shown in figure 7.7 are used as described below.

Debits

Cash at bank. The cash at bank column is used in ***every*** entry because ***only*** cash receipts transactions are recorded in the cash receipts journal. Each amount appearing in this column also represents the amount of cash received on the date shown and hence deposited to the business bank account. The entries on each day therefore correspond with daily bank deposits. Note in figure 7.7 that, on 20 January, two amounts were received. These are recorded in the appropriate credit columns and in the cash at bank column. The total banking for that day can easily be determined by adding the two amounts: $990 + $242 = $1232.

Discount allowed. This column is used to record the discount allowed to customers for prompt payment. Note that on 10 January a 2% discount (0.02 × $1210 = $24) was given to R. Abbot because the payment was made within 10 days in accordance with the credit terms. This amount consists of $22 discount allowed plus an adjustment of the GST payable of $2 ($22 ÷ 11) recorded at the time of the sale. Total debits to cash at bank ($1186), discount allowed ($22), and GST payable write-back of $2 are equal to the $1210 accounts receivable.

GST payable. This column records the write-back of the GST included in any discount for prompt payment.

Credits

Sales. All cash sales are recorded in the sales column at GST-exclusive prices. Most entities use cash registers to account for daily cash sales. At the end of a day, sales tapes showing the total cash sales are removed from the cash registers and a summary of these tapes is used to make the entry in the sales column. Cash registers and barcode readers can automatically track any GST involved.

GST payable. This column records the GST applicable to the cash sales recorded in the sales column.

Accounts receivable. This column is used to record collections from customers. The name of the customer is written in the account column to identify the proper account to be credited in the subsidiary ledger. Note that amounts entered in this column represent the gross amount of debt discharged by the amount received. For January, $2176 was received in cash, and accounts receivable were allowed $24 discount under the terms of credit and the GST of $2 in the discount was written back. Hence, the Accounts Receivable Control account is credited for the full amount of $2200 (cash, discount allowed and GST).

Other accounts. This column is used for all cash collections other than from cash sales and accounts receivable. The title of the specific account to be credited is identified in the account column. For example, Barbara Baldwin's Capital account is credited on 3 January for the $10 000 investment of capital.

Summary of posting procedures for cash receipts journal

The procedures required to post the entries in the cash receipts journal can be summarised as follows (note that, in practice, steps 1–3 would be performed by different personnel).

1. The entries in the accounts receivable column are ***posted daily*** to the subsidiary ledger. A tick (or an appropriate subsidiary ledger account number for that customer) is placed in the post ref column of the cash receipts journal, and CR1 (representing in this case page 1 of the cash receipts journal) is entered in the post ref columns of the subsidiary ledger accounts.
2. The credits in the other accounts column are posted ***daily or at other frequent intervals*** during the month. The number of the account involved is recorded in the post ref column as the entries are posted to show that the posting has been done. In addition, CR1 is entered in the post ref column of each account to indicate the source of each entry.
3. ***At the end of the month***, the entries in each column are totalled. The sum of the debit columns is compared with the sum of the credit columns to verify that the debits and credits are equal. This procedure is called crossadding, which gives the following results, using the totals of the journal columns:

Debit columns		Credit columns	
Cash at bank	$15 226	Sales	$ 500
Discount allowed	22	Accounts receivable	2 200
GST Payable	2	GST Payable	50
		Other accounts	12 500
Total debits	$15 250	Total credits	$15 250

Crossadded totals

After the totals have been crossadded, the following six column totals are posted.

Cash debit column. Posted as a debit to the Cash at Bank account. The account number (100) is entered below the total to indicate that the posting has been done, and CR1 is recorded in the post ref column of the Cash at Bank account.

Discount allowed debit column. Posted as a debit to the Discount Allowed account. The account number (511) is placed below the total to show that the posting has been done, and CR1 is entered in the post ref column in the Discount Allowed account.

GST payable debit column. Posted as a debit to the GST Payable account. The account number (215) is placed below the total to show that the posting has been done, and CR1 is entered in the post ref column of the GST Payable account.

Sales credit column. Posted as a credit to the Sales account. The account number (400) is entered below the total as an indication that the posting has taken place, and CR1 is recorded in the Sales account.

GST payable credit column. Posted as a credit to the GST Payable account. The account number (215) is placed below the total to show that the posting has been done, and CR1 is entered in the post ref column of the GST Payable account.

Accounts receivable credit column. Posted as a credit to the Accounts Receivable Control account. The account number (104) is recorded below the total, and CR1 is entered in the control account.

The total of the other accounts column ***is not posted at the end of the month*** because each entry was posted individually during the month. A special symbol — such as (x) — is used at the bottom of the column to indicate that it is not posted as a total.

As discussed previously with the sales journal, additional columns may be added to the cash receipts journal to record items associated with a particular cash receipt. If so, additional postings are necessary from those columns. In a ***perpetual inventory system***, a ‘cost of sales’ column is added to the cash receipts journal to record the cost of each cash sale made, and postings must be made daily to the inventory records in order to keep records of individual items up to date (see the posting for ‘sales’ on the inventory record in figure 6.6, p. 245). Furthermore, at the end of the month, the total of the ‘cost of sales’ column is posted twice — once to the Cost of Sales account, and once to the Inventory Control account, i.e. the control account in the general ledger for the inventory records in the subsidiary ledger. Completion of these postings is indicated by a tick in the post ref column in the cash receipts journal.

Cash payments journal

The **cash payments journal**, also called the cash disbursements journal, is used to record all transactions involving payments of cash — cash purchases of inventory, payment of accounts payable to creditors, payments for expenses, and repayment of bank loans.

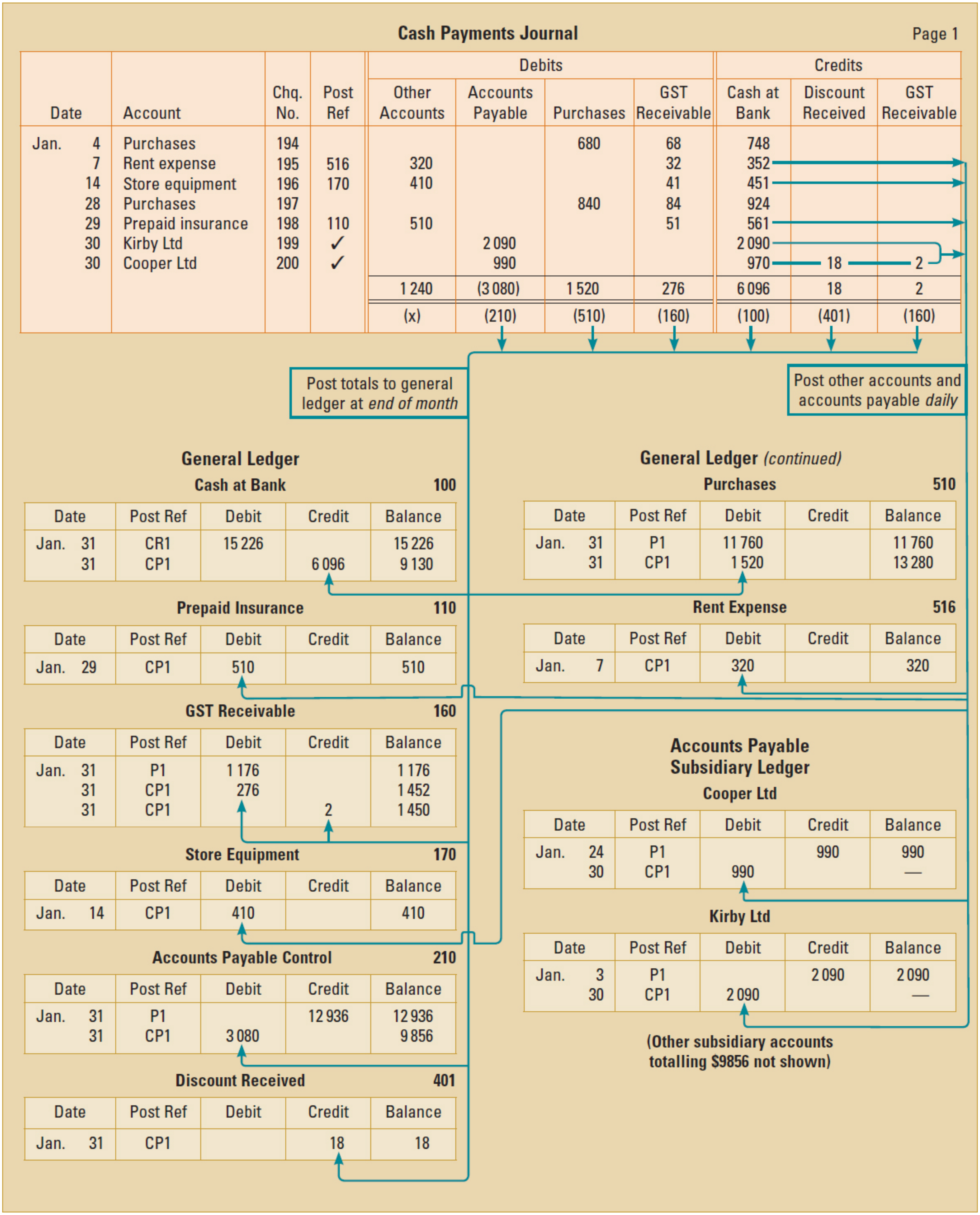
Cash is a very valuable asset and can easily be stolen. As we shall see in the chapter on cash management and control, adequate controls are essential to safeguard this asset. We have already noted that all cash received (in whatever form) is banked daily. In all entities using a sound system of internal control, all payments are made through the bank account of the entity.

The most common means used by an entity to make payments are internet banking and cheques drawn on the entity’s bank account. In this chapter, we shall assume that all payments, after proper authorisation, are made by internet banking or cheque unless otherwise stated. Small or minor payments can be made from petty cash held in the form of notes and coins.

The cash payments journal must have at least three money columns — one to record the amount of each payment, i.e. each cheque written or internet banking payment, another to record the discount received when accounts payable are paid, and another to adjust the GST receivable. Writing cheques or paying using internet banking against the entity’s bank account reduces the balance of the Cash at Bank account, or increases the overdraft if the business has overdraft facilities. In either case, the Cash at Bank account is credited. Again, since an entity earns income by receiving discounts, the Discount Received account is credited. Note that the GST Receivable account is credited for any GST adjustments.

Other columns are added to improve the posting process for the accounts to be debited as a result of each payment. Two common ones are for purchases of inventories and accounts payable. An ‘other accounts’ column can then be used for all other accounts to be debited. As can be seen from figure 7.8 (p. 300), four debit columns (other accounts, accounts payable, purchases and GST receivable) are used along with three credit columns (cash at bank, discount received and GST receivable).

Figure 7.8 Relationship of cash payments journal and ledger accounts



Cash Payments Journal

Page 1

Date	Account	Chq. No.	Post Ref	Debits: Other Accounts	Debits: Accounts Payable	Debits: Purchases	Debits: GST Receivable	Credits: Cash at Bank	Credits: Discount Received	Credits: GST Receivable
Jan. 4	Purchases	194				680	68	748		
7	Rent expense	195	516	320			32	352		
14	Store equipment	196	170	410			41	451		
28	Purchases	197				840	84	924		
29	Prepaid insurance	198	110	510			51	561		
30	Kirby Ltd	199	✓		2 090			2 090		
30	Cooper Ltd	200	✓		990			970	18	2
				1 240	(3 080)	1 520	276	6 096	18	2
				(x)	(210)	(510)	(160)	(100)	(401)	(160)

Post totals to general ledger at *end of month*

Post other accounts and accounts payable *daily*

General Ledger

Cash at Bank 100

Date	Post Ref	Debit	Credit	Balance
Jan. 31	CR1	15 226		15 226
31	CP1		6 096	9 130

Prepaid Insurance 110

Date	Post Ref	Debit	Credit	Balance
Jan. 29	CP1	510		510

GST Receivable 160

Date	Post Ref	Debit	Credit	Balance
Jan. 31	P1	1 176		1 176
31	CP1	276		1 452
31	CP1		2	1 450

Store Equipment 170

Date	Post Ref	Debit	Credit	Balance
Jan. 14	CP1	410		410

Accounts Payable Control 210

Date	Post Ref	Debit	Credit	Balance
Jan. 31	P1		12 936	12 936
31	CP1	3 080		9 856

Discount Received 401

Date	Post Ref	Debit	Credit	Balance
Jan. 31	CP1		18	18

General Ledger *(continued)*

Purchases 510

Date	Post Ref	Debit	Credit	Balance
Jan. 31	P1	11 760		11 760
31	CP1	1 520		13 280

Rent Expense 516

Date	Post Ref	Debit	Credit	Balance
Jan. 7	CP1	320		320

Accounts Payable Subsidiary Ledger

Cooper Ltd

Date	Post Ref	Debit	Credit	Balance
Jan. 24	P1		990	990
30	CP1	990		—

Kirby Ltd

Date	Post Ref	Debit	Credit	Balance
Jan. 3	P1		2 090	2 090
30	CP1	2 090		—

(Other subsidiary accounts totalling $9856 not shown)

The following transactions for Baldwin Video Equipment are used to illustrate the cash payments journal.

1. Inventory costing $680 plus GST was purchased on 4 January (cheque no. 194).
2. Store rent of $320 plus GST was paid on 7 January (cheque no. 195).
3. Store equipment costing $410 plus GST was purchased on 14 January (cheque no. 196).
4. Issued cheque no. 197 for inventory costing $924 (includes GST) on 28 January.
5. A 1-year premium for an insurance policy amounting to $510 plus GST (cheque no. 198) was paid on 29 January.
6. The $2090 account payable to Kirby Ltd was paid on 30 January by cheque no. 199.
7. The $990 account payable to Cooper Ltd was paid less a 2% discount of $20 on 30 January. A cheque (no. 200) for $970 was forwarded.

The four debit columns and three credit columns of the cash payments journal shown in figure 7.8 are used as described below.

Debits

Other accounts. This column is used for all cash payments ***except*** cash purchases and payments of accounts payable. The title of the account to be debited is entered in the account column to identify the reason for the payment. In figure 7.8, rent expense and prepaid insurance were paid for along with the acquisition of store equipment.

Accounts payable. Payments of accounts payable are entered in this column. The name of the supplier is written in the account column so the entry can be posted to the appropriate subsidiary ledger account. Note that a similar position exists here as with the accounts receivable column in the cash receipts journal. The accounts in figure 7.8 are recorded gross, i.e. they represent the total amount owing that has been discharged by forwarding payment.

Purchases. The purchases column is used to record all cash purchases of inventory (net of GST) when using the periodic system. The total of this column is posted to the Purchases account in the general ledger. When posted, the amount is added to the credit purchases posted from the purchases journal to determine the total purchases for the period. If the perpetual inventory system is used, the purchases column is replaced with an ‘inventory’ column, the total of which is debited to the Inventory Control account representing cash purchases, and daily postings are necessary to inventory records in the inventory subsidiary ledger.

GST receivable. This column records any GST included in payments for goods and services. The total of this column is posted to the debit of the GST Receivable account. This account’s balance represents input credits that can be offset against GST Payable.

Credits

Cash at bank. This column must be used for ***each*** transaction because ***only*** cash payments are recorded in the journal.

Discount received. Any discount received for prompt payment is recorded in this column.

GST receivable. This column is used to record any adjustments that need to be made to GST receivable previously recorded, e.g. if an allowance is made for prompt payment.

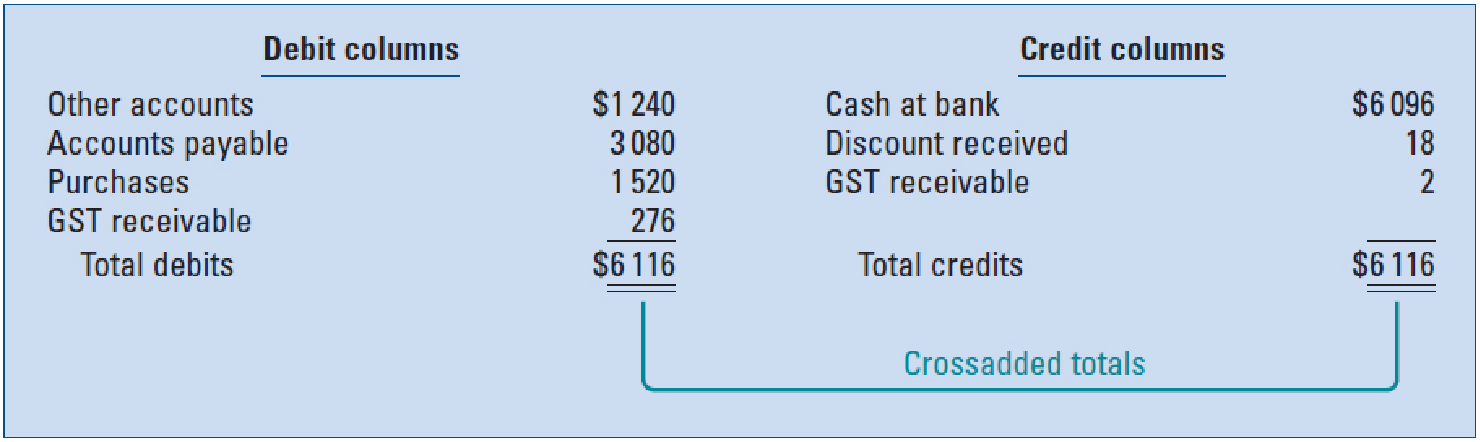
The format used in figure 7.8 for the cash payments journal is a typical one. However, the number of columns used, and the order and arrangement of columns, can vary from business to business. In practice, there could be separate columns for all frequently occurring expenses, e.g. wages, electricity, repairs, telephone.

Summary of posting procedures for cash payments journal

The posting procedures required with the cash payments journal are the two types discussed earlier for the cash receipts journal — ***postings during the month*** and ***postings at the end of the month***. The procedures can be summarised as follows (note that steps 1–3 would normally be performed by different personnel).

1. The entries in the accounts payable column are posted ***daily*** to the subsidiary ledger. A tick (or an appropriate subsidiary ledger account number for that supplier) is placed in the post ref column of the cash payments journal, and CP1 (representing in this case page 1 of the cash payments journal) is entered in the post ref columns of the subsidiary ledger accounts. In a perpetual inventory system, daily postings are made also to inventory records in the subsidiary ledger for any cash purchases recorded in the ‘inventory’ column.

2. The debits in the other accounts column are posted ***daily or at other frequent intervals*** during the month. The number of each account involved is recorded in the post ref column as the entries are posted to indicate that the posting has been done. CP1 is entered in the post ref column of each account to show the source of each entry.
3. ***At the end of the month***, the dollar amounts entered in each column are totalled and crossadded to verify that the debits and credits are equal, as shown below:



Debit columns		Credit columns	
Other accounts	$1 240	Cash at bank	$6 096
Accounts payable	3 080	Discount received	18
Purchases	1 520	GST receivable	2
GST receivable	276		
Total debits	$6 116	Total credits	$6 116

Crossadded totals

4. The column totals for accounts payable, purchases (or inventory), cash at bank and discount received are posted ***at the end of the month*** to their respective accounts in the general ledger. The account numbers are entered below the column totals, and CP1 is recorded in the post ref columns of the general ledger accounts. The total of the other accounts column is ***not*** posted at the end of the month because the individual entries were posted earlier. An (x) can be placed below the column total to indicate that it is not posted at the end of the month.

BUSINESS KNOWLEDGE

The numbers of life

In a manual accounting system, posting is done using appropriate account descriptions or names. But computers are able to process data in response to numerical input much faster than if descriptive names are used. Hence, in today's computerised environment, numbers dominate our lives — tax file numbers, Medicare numbers, bank account numbers, personal identification numbers (PINs), credit card numbers, employee numbers and so on. So it is with accounting.

Use of the general journal

Despite the inefficiency of a general journal for repetitive transactions such as sales, purchases, cash receipts and cash payments, it is an essential part of every accounting system. A ***limited number*** of infrequent transactions (such as sales returns and allowances, purchases returns and allowances, and the purchase or sale of equipment on credit) are recorded in the general journal ***during*** an accounting period. If a particular transaction cannot be recorded effectively in one of the special journals, it should be entered in the general journal.

The general journal is also used for all ***adjusting*** and ***closing*** entries at the end of the accounting period. The procedures used to record entries in the general journal and to post them daily to ledger accounts have already been described in previous chapters. In addition, the general journal is used to record ***correcting entries*** or adjustments to the accounts that must be made either during the accounting period or after special journals have been posted.

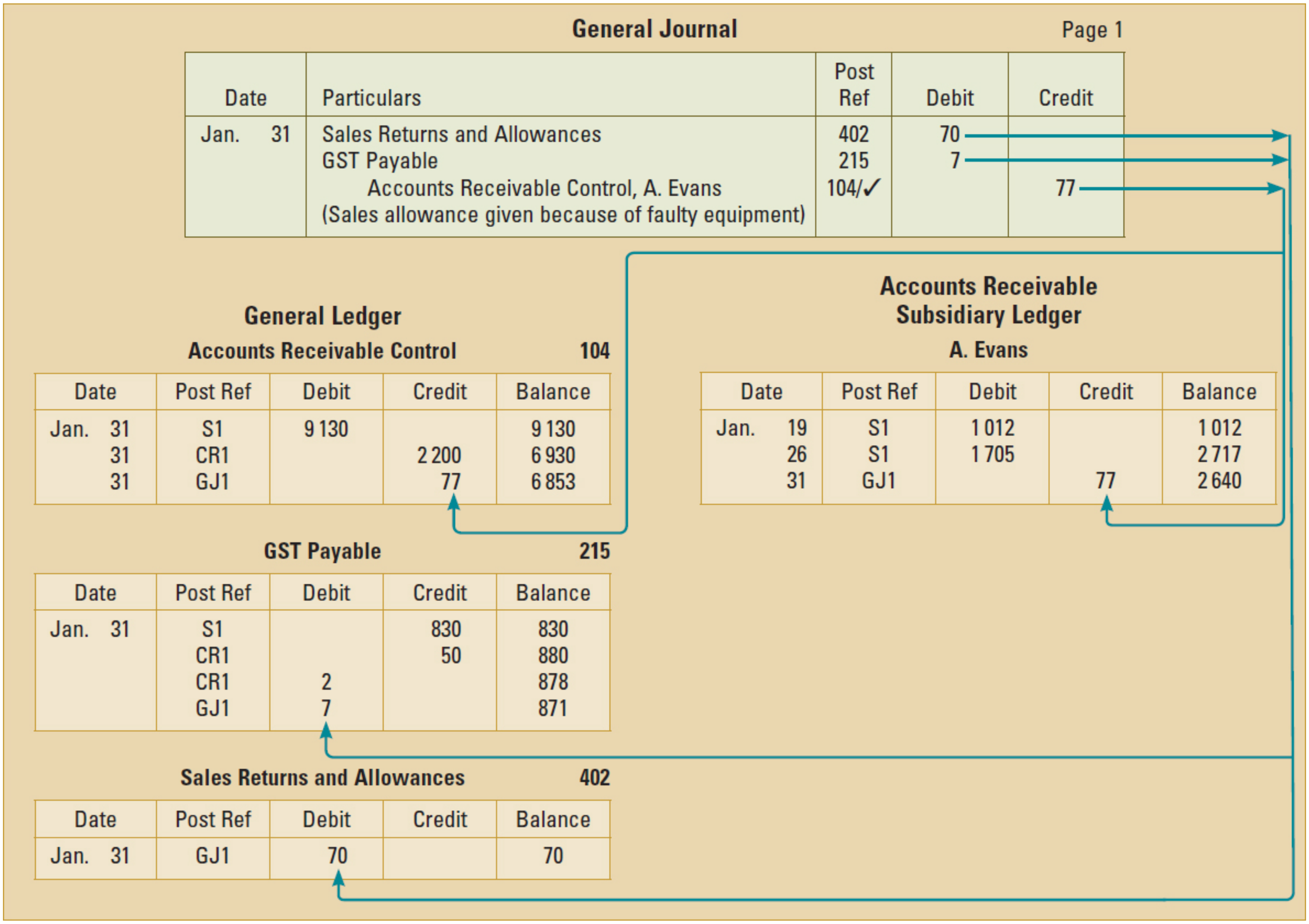
As we have seen in the description of special journals, the ledger accounts should indicate the journal from which each debit and credit is posted. The symbol GJ typically is used in the ledger accounts for postings from the general journal; GJ1 refers to page 1 of the general journal.

The following symbols can be used to identify the sources of entries posted from the five journals discussed so far:

S1 — page 1 of the sales journal
P1 — page 1 of the purchases journal
CR1 — page 1 of the cash receipts journal
CP1 — page 1 of the cash payments journal
GJ1 — page 1 of the general journal.

To illustrate the use of the general journal, assume that Barbara Baldwin agreed to give A. Evans a $77 (including GST of $7) allowance because of a faulty component in video equipment sold on 19 January. The sales allowance is recorded in the general journal as shown in figure 7.9. Note that the GST included in the allowance ($77 ÷ 11) is written back against the GST recorded in the GST Payable account when the goods were originally sold. Both the Accounts Receivable Control account and the customer's subsidiary ledger account must be credited; otherwise the control account will not be in balance with the subsidiary ledger. The number of the Accounts Receivable Control account (104) and a tick (or an appropriate subsidiary ledger account number for that customer) are recorded in the post ref column to indicate that both postings have been made.

Figure 7.9 Relationship of general journal and ledger accounts



General Journal Page 1

Date	Particulars	Post Ref	Debit	Credit
Jan. 31	Sales Returns and Allowances	402	70	
	GST Payable	215	7	
	Accounts Receivable Control, A. Evans	104/✓		77
	(Sales allowance given because of faulty equipment)			

General Ledger

Accounts Receivable Control 104

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1	9 130		9 130
31	CR1		2 200	6 930
31	GJ1		77	6 853

GST Payable 215

Date	Post Ref	Debit	Credit	Balance
Jan. 31	S1		830	830
	CR1		50	880
	CR1	2		878
	GJ1	7		871

Sales Returns and Allowances 402

Date	Post Ref	Debit	Credit	Balance
Jan. 31	GJ1	70		70

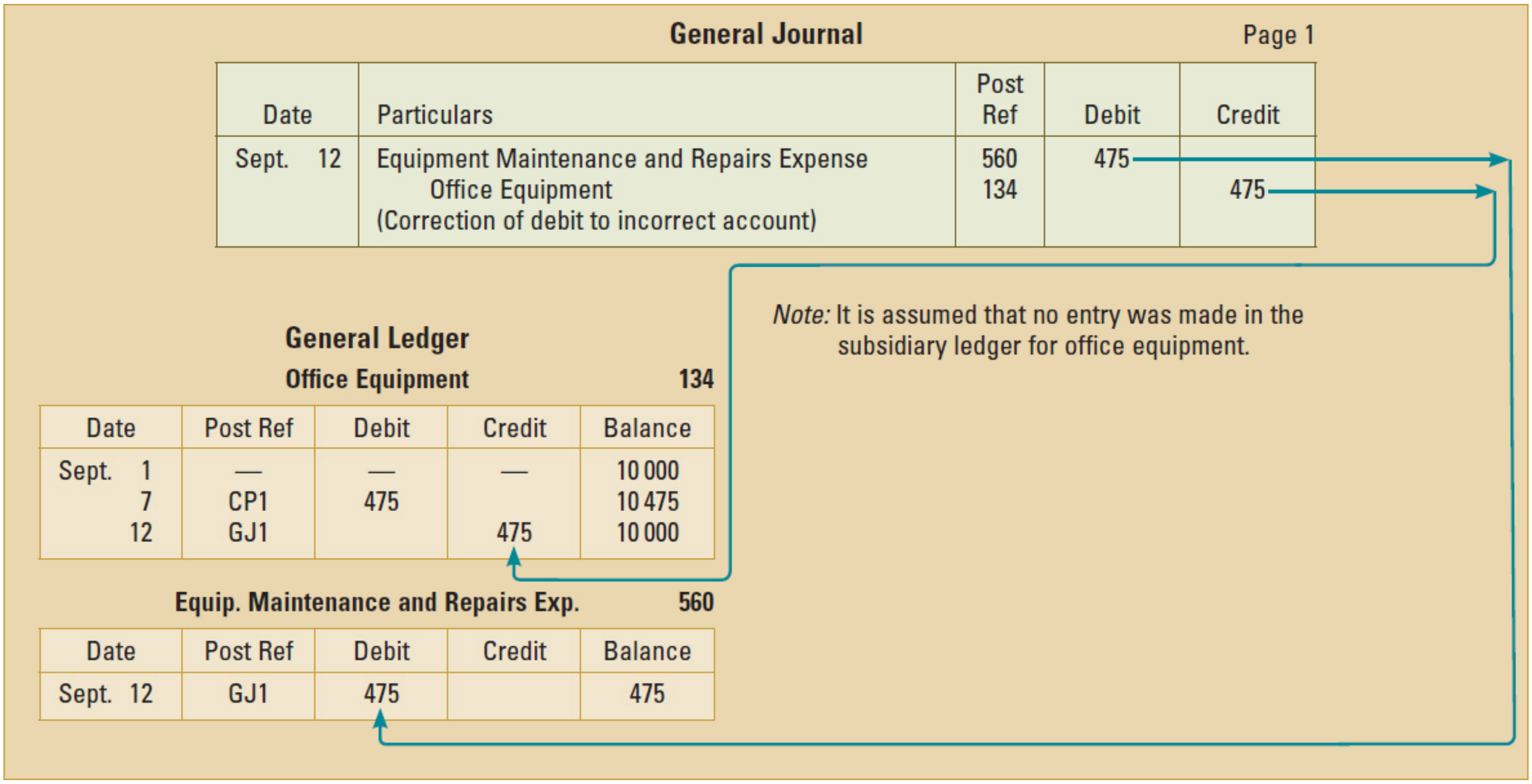
Accounts Receivable Subsidiary Ledger

A. Evans

Date	Post Ref	Debit	Credit	Balance
Jan. 19	S1	1 012		1 012
26	S1	1 705		2 717
31	GJ1		77	2 640

To illustrate the use of the general journal for the purpose of correcting entries that have already been posted to the accounts, assume that the accountant for Barbara Baldwin had posted the payment of $475 for repairs to office equipment to the debit side of the Office Equipment account. To correct this error, it is necessary to cancel the debit entry in the Office Equipment account and debit an account such as Equipment Maintenance and Repairs Expense. The correcting entry is shown in figure 7.10.

Figure 7.10 Use of general journal for correcting entries



General Journal Page 1

Date	Particulars	Post Ref	Debit	Credit
Sept. 12	Equipment Maintenance and Repairs Expense Office Equipment (Correction of debit to incorrect account)	560 134	475	 475

Note: It is assumed that no entry was made in the subsidiary ledger for office equipment.

General Ledger

Office Equipment 134

Date	Post Ref	Debit	Credit	Balance
Sept. 1	—	—	—	10 000
7	CP1	475		10 475
12	GJ1		475	10 000

Equip. Maintenance and Repairs Exp. 560

Date	Post Ref	Debit	Credit	Balance
Sept. 12	GJ1	475		475

Note that if errors are discovered in the journals ***before postings have been made***, the errors can simply be corrected by ruling through the incorrect figure and inserting the correct one.

LEARNING CHECK

☐ Four widely used special journals are the sales journal, the purchases journal, the cash receipts journal and the cash payments journal.

☐ When special journals are used, the general journal is then used for infrequent transactions (such as sales returns and allowances), for adjusting and closing entries at the end of the accounting period, and for recording correcting entries to the accounts.

7.5 Abnormal balances in subsidiary ledgers

LO 5 Handle circumstances where abnormal balances appear in subsidiary ledgers, and where account set-offs are required.

From time to time it is possible that temporary abnormal balances will arise in the accounts receivable and accounts payable subsidiary ledgers. For example, in placing an order for inventory, a deposit may be required to be paid on the goods. At the time of payment, this could result in a debit to an account in the accounts payable subsidiary ledger before the purchase of the goods. During the accounting period, this temporary abnormal balance will cause no problems and the account will revert to a normal credit balance on receipt of an invoice for the inventory purchased.

However, if the accounts payable account has a debit balance at the end of the accounting period, this should not be offset against the total accounts payable. It should be added to the accounts receivable balances for the purposes of end-of-period reporting. A similar situation could arise in relation to the accounts receivable subsidiary ledger.

Note that abnormal balances can be flagged automatically in a computerised system, and can easily be added to the appropriate classification, e.g. credit balances in accounts receivable would be added automatically to accounts payable for reporting purposes.

Account set-offs

Selling to a customer and buying from the same customer is another situation that may arise. For example, a business selling computer equipment to a customer could, in turn, buy stationery from the same customer. Under normal trading conditions, this causes no problems. For example, if $5000 worth of equipment was sold on credit to Ace Supplies, and before payment was received $1500 of stationery was purchased on credit from the same business, an account for Ace Supplies would appear in both the accounts receivable and accounts payable subsidiary ledgers. These accounts normally would be discharged by receiving a cheque for $5000 from Ace

Supplies and forwarding a separate cheque for $1500 to Ace Supplies.

It may arise, however, that in settlement of its debt of $5000 Ace Supplies offsets the amount to be paid by the $1500 owing to it, and forwards a cheque for the net amount of $3500. This leads to a balance of $1500 in Ace Supplies' account in both the receivable and payable subsidiary ledgers. A general journal entry is required to remove the $1500 in both accounts from the subsidiary ledgers.

To illustrate the principle involved, the accounts and general journal are set out below:

Accounts before payment:

Accounts Receivable Ledger

Ace Supplies

Date	Post Ref	Debit	Credit	Balance
	S1	5 000		5 000

Accounts Payable Ledger

Ace Supplies

Date	Post Ref	Debit	Credit	Balance
	P1		1 500	1 500

Accounts after payment:

Accounts Receivable Ledger

Ace Supplies

Date	Post Ref	Debit	Credit	Balance
	S1	5 000		5 000
	CR1		3 500	1 500

Accounts Payable Ledger

Ace Supplies

Date	Post Ref	Debit	Credit	Balance
	P1		1 500	1 500

The general journal entry below needs to be made and, after posting, the accounts in the subsidiary ledgers would appear as shown.

General Journal

Date	Particulars	Post Ref	Debit	Credit
	Accounts Payable Control, Ace Supplies	201/✓	1 500	
	Accounts Receivable Control, Ace Supplies	104/✓		1 500
	(Accounts offset)			

Accounts Receivable Ledger

Ace Supplies

Date	Post Ref	Debit	Credit	Balance
	S1	5 000		5 000
	CR1		3 500	1 500
	GJ1		1 500	—

Accounts Payable Ledger

Ace Supplies

Date	Post Ref	Debit	Credit	Balance
	P1		1 500	1 500
	GJ1	1 500		—

Note that the general journal entry also requires a debit to be made to the Accounts Payable Control account and a credit to the Accounts Receivable Control account. Both these accounts are in the general ledger and are not shown here.

Demonstration problem

The following demonstration problem illustrates the use of the general journal, the four special journals introduced here, and the general ledger with two subsidiary ledgers.

Sidney Carton began business on 1 July 2016, specialising in the purchase and supply of packaging materials. Carton obtained the necessary ABN (99 111 222 333) and registered for the GST. An accounting system was designed and a chart of accounts was established:

101	Cash at Bank
113	Accounts Receivable Control
117	Prepaid Insurance
118	Office Supplies
120	GST Receivable
151	Land
154	Buildings
156	Store Furniture
158	Office Equipment
201	Accounts Payable Control
202	Bank Loan
240	GST Payable
251	Mortgage Payable
301	S. Carton, Capital
401	Sales
403	Sales Returns and Allowances
405	Discount Received
501	Purchases
503	Purchases Returns and Allowances
601	Salaries Expense
611	Delivery Expense
621	Office Expenses
631	Sundry Expenses
633	Discount Allowed

The following transactions occurred during July 2016. The applicable rate of GST is 10%. All calculations are rounded to the nearest dollar.

2016

July 1 S. Carton invested $60 000 cash in the new business (GST-free).

1 Purchased land and buildings of an existing retail store (GST-free in this case) for $100 000 of which $30 000 is considered land cost. Paid $30 000 by cheque no. 101 for the land and buildings and signed a mortgage payable for the balance.

2 Purchased store furniture on credit from Cooma Ltd for $7480 including GST, terms n/60.

5 Purchased inventory on credit from Tumut Co. Ltd, $4000 plus GST; invoice date 6 July, terms 2/10, n/60.

6 Purchased a 3-year fire insurance policy for $792 including GST, cheque no. 102.

8 Purchased inventory for $5500 including GST, cheque no. 103.

9 Returned unsatisfactory goods to Tumut Co. Ltd and received an adjustment note (credit note) for $880, including GST adjustment.

13 Sold inventory to B. Miller on account, $8200 plus GST; invoice no. 1, terms 1/10, n/30.

15 Paid Tumut Co. Ltd cheque no. 104 for amount due.

15 Cash sales for period to 15 July were recorded today, $3740 including GST.

16 Sold inventory to M. Owen on account, $4700 plus GST; invoice no. 2, terms 1/10, n/30.

16 Paid salaries for period to 15 July totalling $2650, cheque no. 105 (GST-free).

20 Purchased inventory on credit from Lockwood Ltd, $5390 including GST; invoice date 20 July, terms 1/10, n/30.

22 Received account for $143 including GST from P. Mason for items chargeable to Office Expenses, terms n/30.

23 Received inventory returned by M. Owen, and issued adjustment note (credit note) no. 1 for $2200 including GST adjustment.

23 Received cheque from B. Miller for invoice no. 1, less discount.

26 Received cheque from M. Owen for balance due on invoice no. 2, less discount.

29 Sold inventory worth $4000 plus GST on credit to B. King; invoice no. 3, terms 1/10, n/30.

29 Paid $237 including GST for sundry expenses, cheque no. 106.

29 Paid Lockwood Ltd for the invoice dated 20 July, less discount, cheque no. 107.

31 Cash sales from 16 July to 31 July were $2145 including GST.

31 Paid salaries for period 16–31 July totalling $2850, cheque no. 108 (GST-free).

31 Received account from J. Bond for $106 including GST, for delivery expenses for the month.

31 Purchased a printer for use in the business office at a cost of $825 including GST using a short-term bank loan.

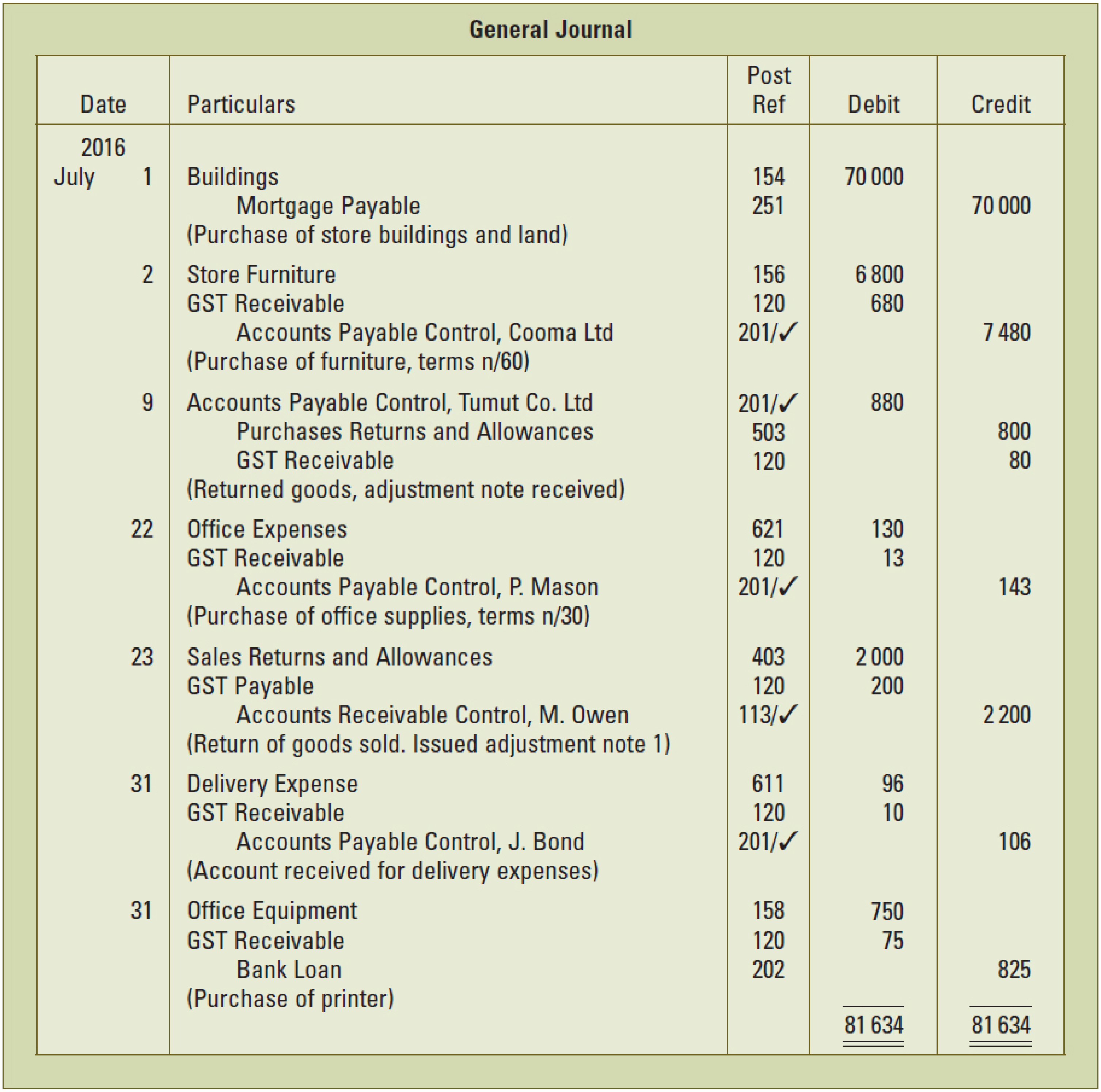
31 Purchased office supplies for $330 including GST, cheque no. 109.

Required

A. Record the transactions in a general journal, a cash receipts journal, a cash payments journal, a sales journal and a purchases journal.
B. Show the accounts receivable and accounts payable subsidiary ledgers as they would appear at the end of July, and prepare schedules of balances.
C. Post all journals to the general ledger accounts (running balance).
D. Prepare a trial balance of the general ledger as at 31 July 2016.

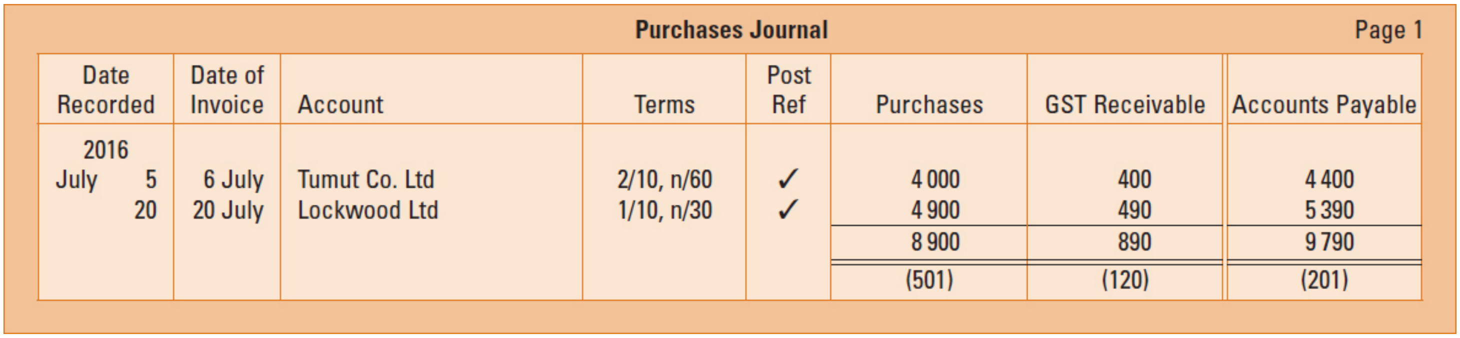
Solution to demonstration problem

A.



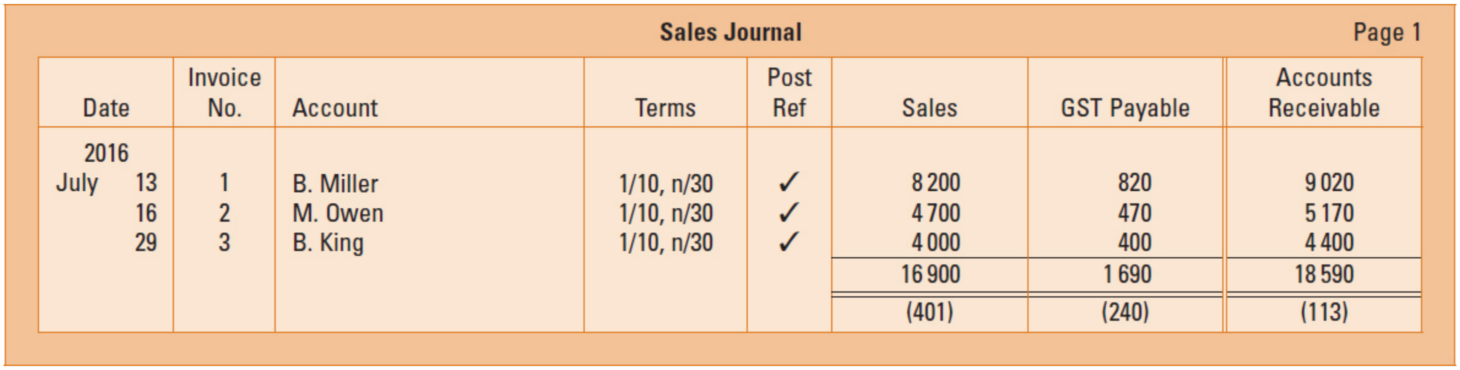
General Journal

Date	Particulars	Post Ref	Debit	Credit
2016				
July 1	Buildings	154	70 000	
	Mortgage Payable	251		70 000
	(Purchase of store buildings and land)			
2	Store Furniture	156	6 800	
	GST Receivable	120	680	
	Accounts Payable Control, Cooma Ltd	201/✓		7 480
	(Purchase of furniture, terms n/60)			
9	Accounts Payable Control, Tumut Co. Ltd	201/✓	880	
	Purchases Returns and Allowances	503		800
	GST Receivable	120		80
	(Returned goods, adjustment note received)			
22	Office Expenses	621	130	
	GST Receivable	120	13	
	Accounts Payable Control, P. Mason	201/✓		143
	(Purchase of office supplies, terms n/30)			
23	Sales Returns and Allowances	403	2 000	
	GST Payable	120	200	
	Accounts Receivable Control, M. Owen	113/✓		2 200
	(Return of goods sold. Issued adjustment note 1)			
31	Delivery Expense	611	96	
	GST Receivable	120	10	
	Accounts Payable Control, J. Bond	201/✓		106
	(Account received for delivery expenses)			
31	Office Equipment	158	750	
	GST Receivable	120	75	
	Bank Loan	202		825
	(Purchase of printer)			
			81 634	81 634



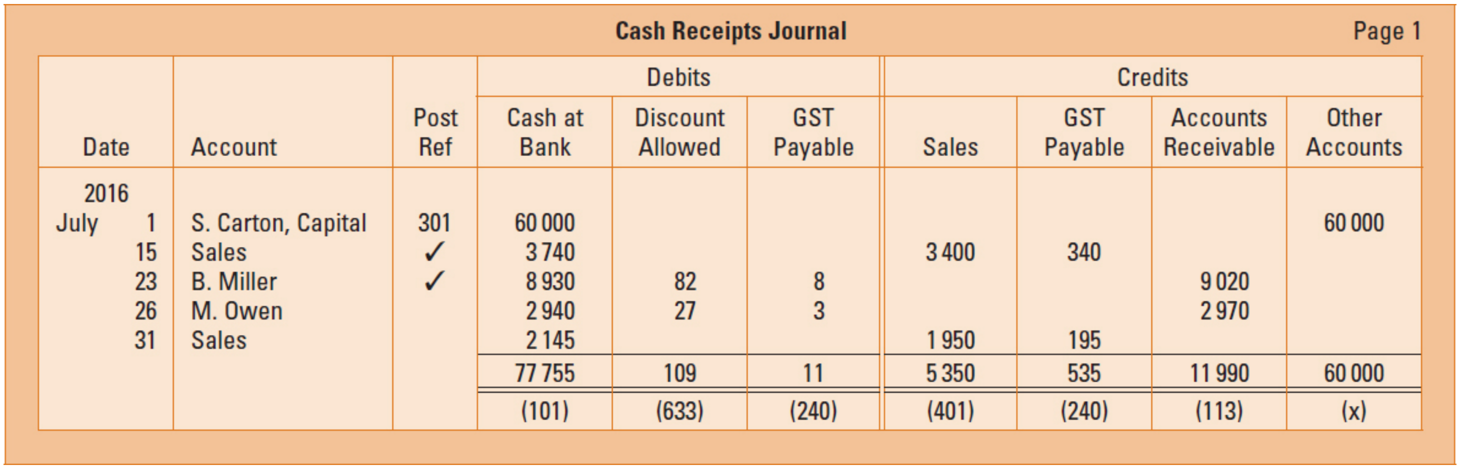
Purchases Journal Page 1

Date Recorded	Date of Invoice	Account	Terms	Post Ref	Purchases	GST Receivable	Accounts Payable
2016							
July 5	6 July	Tumut Co. Ltd	2/10, n/60	✓	4 000	400	4 400
20	20 July	Lockwood Ltd	1/10, n/30	✓	4 900	490	5 390
					8 900	890	9 790
					(501)	(120)	(201)



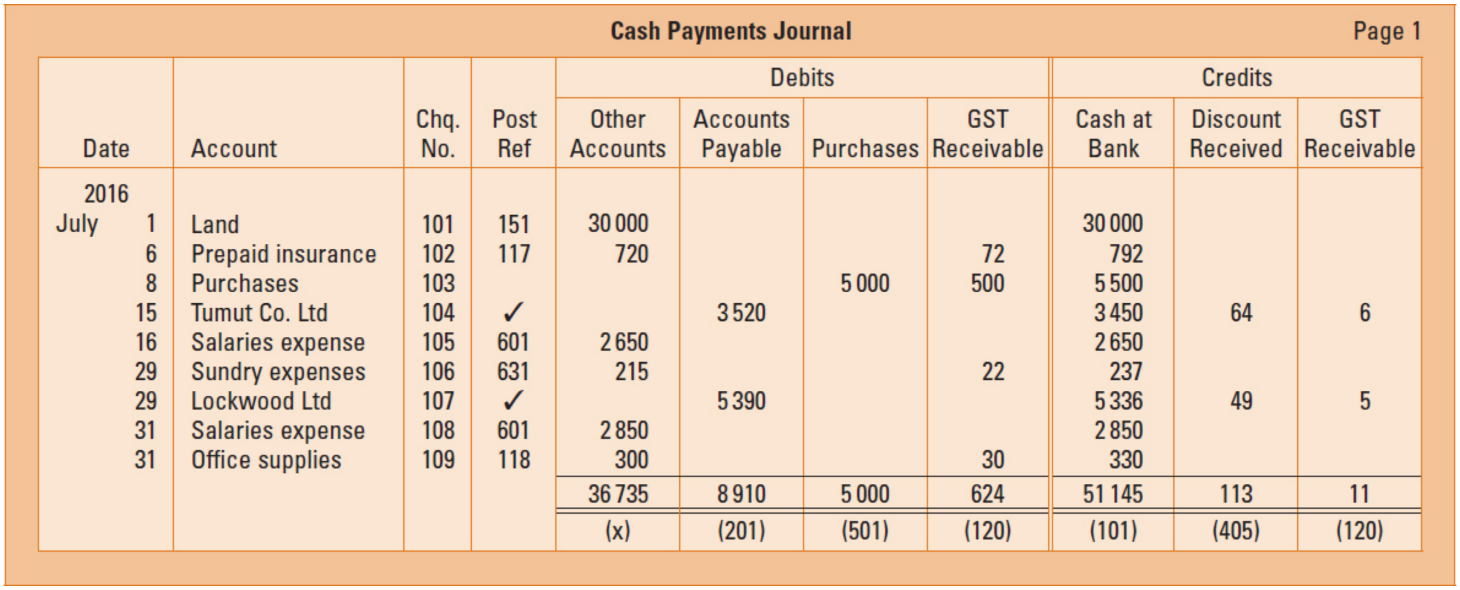
Sales Journal Page 1

Date	Invoice No.	Account	Terms	Post Ref	Sales	GST Payable	Accounts Receivable
2016							
July 13	1	B. Miller	1/10, n/30	✓	8 200	820	9 020
16	2	M. Owen	1/10, n/30	✓	4 700	470	5 170
29	3	B. King	1/10, n/30	✓	4 000	400	4 400
					16 900	1 690	18 590
					(401)	(240)	(113)



Cash Receipts Journal Page 1

			Debits			Credits			
Date	Account	Post Ref	Cash at Bank	Discount Allowed	GST Payable	Sales	GST Payable	Accounts Receivable	Other Accounts
2016									
July 1	S. Carton, Capital	301	60 000						60 000
15	Sales	✓	3 740			3 400	340		
23	B. Miller	✓	8 930	82	8			9 020	
26	M. Owen		2 940	27	3			2 970	
31	Sales		2 145			1 950	195		
			77 755	109	11	5 350	535	11 990	60 000
			(101)	(633)	(240)	(401)	(240)	(113)	(x)



Cash Payments Journal Page 1

				Debits				Credits		
Date	Account	Chq. No.	Post Ref	Other Accounts	Accounts Payable	Purchases	GST Receivable	Cash at Bank	Discount Received	GST Receivable
2016										
July 1	Land	101	151	30 000				30 000		
6	Prepaid insurance	102	117	720			72	792		
8	Purchases	103				5 000	500	5 500		
15	Tumut Co. Ltd	104	✓		3 520			3 450	64	6
16	Salaries expense	105	601	2 650				2 650		
29	Sundry expenses	106	631	215			22	237		
29	Lockwood Ltd	107	✓		5 390			5 336	49	5
31	Salaries expense	108	601	2 850				2 850		
31	Office supplies	109	118	300			30	330		
				36 735	8 910	5 000	624	51 145	113	11
				(x)	(201)	(501)	(120)	(101)	(405)	(120)

B.

Accounts Receivable Subsidiary Ledger

B. King

Date	Post Ref	Debit	Credit	Balance
2016				
July 29	S1	4 400		4 400

B. Miller

Date	Post Ref	Debit	Credit	Balance
2016				
July 13	S1	9 020		9 020
23	CR1		9 020	—

M. Owen

Date	Post Ref	Debit	Credit	Balance
2016				
July 16	S1	5 170		5 170
23	GJ1		2 200	2 970
26	CR1		2 970	—

Schedule of Accounts Receivable
as at 31 July 2016

B. King	$4 400
	$4 400

Accounts Payable Subsidiary Ledger

J. Bond

Date	Post Ref	Debit	Credit	Balance
2016				
July 31	GJ1		106	106

Cooma Ltd

Date	Post Ref	Debit	Credit	Balance
2016				
July 2	GJ1		7 480	7 480

Lockwood Ltd

Date	Post Ref	Debit	Credit	Balance
2016				
July 20	P1		5 390	5 390
29	CP1	5 390		—

P. Mason

Date	Post Ref	Debit	Credit	Balance
2016				
July 22	GJ1		143	143

Tumut Co. Ltd

Date	Post Ref	Debit	Credit	Balance
2016				
July 5	P1		4 400	4 400
9	GJ1	880		3 520
15	CP1	3 520		—

Schedule of Accounts Payable
as at 31 July 2016

J. Bond	$ 106
Cooma Ltd	7 480
P. Mason	143
	$7 729

c.

General Ledger

Cash at Bank 101

Date	Post Ref	Debit	Credit	Balance
2016				
July 31	CR1	77 755		77 755
31	CP1		51 145	26 610

Accounts Receivable Control 113

Date	Post Ref	Debit	Credit	Balance
2016				
July 23	GJ1		2 200	(2 200)
31	S1	18 590		16 390
31	CR1		11 990	4 400

Prepaid Insurance 117

Date	Post Ref	Debit	Credit	Balance
2016				
July 5	CP1	720		720

Office Supplies 118

Date	Post Ref	Debit	Credit	Balance
2016				
July 31	CP1	300		300

GST Receivable 120

Date	Post Ref	Debit	Credit	Balance
2016				
July 2	GJ1	680		680
9	GJ1		80	600
22	GJ1	13		613
31	GJ1	10		623
31	GJ1	75		698

Land 151

Date	Post Ref	Debit	Credit	Balance
2016				
July 1	CP1	30 000		30 000

Buildings 154

Date	Post Ref	Debit	Credit	Balance
2016				
July 1	GJ1	70 000		70 000

Store Furniture 156

Date	Post Ref	Debit	Credit	Balance
2016				
July 2	GJ1	6 800		6 800

Office Equipment 158

Date	Post Ref	Debit	Credit	Balance
2016				
July 31	GJ1	750		750

Accounts Payable 201

Date	Post Ref	Debit	Credit	Balance
2016				
July 2	GJ1		7 480	7 480
9	GJ1	880		6 600
22	GJ1		143	6 743
31	GJ1		106	6 849
31	P1		9 790	16 639
31	CP1	8 910		7 729

Bank Loan 202

	Post			

31	P1	890		1 588
31	CP1	624		2 212
31	CP1		11	2 201

Date	Ref	Debit	Credit	Balance
2016 July 31	GJ1		825	825

GST Payable 240

Date	Post Ref	Debit	Credit	Balance
2016 July 23	GJ1	200		(200)
31	S1		1 690	1 490
31	CR1		535	2 025
31	CR1	11		2 014

Note: GST Receivable exceed collections because of purchase of non-current assets. In the normal course of business, collections will exceed outlays for a business of this type.

Mortgage Payable 251

Date	Post Ref	Debit	Credit	Balance
2016 July 1	GJ1		70 000	70 000

S. Carton, Capital 301

Date	Post Ref	Debit	Credit	Balance
2016 July 1	CR1		60 000	60 000

Sales 401

Date	Post Ref	Debit	Credit	Balance
2016 July 31	S1		16 900	16 900
31	CR1		5 350	22 250

Sales Returns and Allowances 403

Date	Post Ref	Debit	Credit	Balance
2016				

Purchases 501

Date	Post Ref	Debit	Credit	Balance
2016 July 31	P1	8 900		8 900
31	CP1	5 000		13 900

Purchases Returns and Allowances 503

Date	Post Ref	Debit	Credit	Balance
2016 July 9	GJ1		800	800

Salaries Expense 601

Date	Post Ref	Debit	Credit	Balance
2016 July 16	CP1	2 650		2 650
31	CP1	2 850		5 500

Delivery Expense 611

Date	Post Ref	Debit	Credit	Balance
2016 July 31	GJ1	96		96

Office Expenses 621

Date	Post Ref	Debit	Credit	Balance
2016 July 22	GJ1	130		130

Sundry Expenses 631

Date	Post Ref	Debit	Credit	Balance
2016				

July 23	GJ1	2 000		2 000

Discount Received **405**

Date	Post Ref	Debit	Credit	Balance
2016 July 31	CP1		113	113

July 29	CP1	215		215

Discount Allowed **633**

Date	Post Ref	Debit	Credit	Balance
2016 July 31	CR1	109		109

D.

S. CARTON
Trial Balance
as at 31 July 2016

Account	Debit	Credit
Cash at bank	$ 26 610	
Accounts receivable control	4 400	
Prepaid insurance	720	
Office supplies	300	
GST receivable	2 201	
Land	30 000	
Buildings	70 000	
Store furniture	6 800	
Office equipment	750	
Accounts payable control		$ 7 729
Bank Loan		825
GST payable		2 014
Mortgage payable		70 000
S. Carton, Capital		60 000
Sales		22 250
Sales returns and allowances	2 000	
Discount received		113
Purchases	13 900	
Purchases returns and allowances		800
Salaries expense	5 500	
Delivery expense	96	
Office expenses	130	
Sundry expenses	215	
Discount allowed	109	
	$163 731	$163 731

LEARNING CHECK

- ☐ An abnormal balance in an account is one that differs from that normally expected, e.g. a credit balance in an account receivable.
- ☐ Account set-offs occur when an entity offsets an amount in one account against another account, e.g. an entity might offset the abnormal balance (debit) in an account in the accounts payable subsidiary ledger against a customer's account in the accounts receivable subsidiary ledger.

7.6 Accounting software

LO 6 **Understand the basic features of accounting software through exposure to MYOB.**

The computer software used by accountants falls generally into two categories — electronic spreadsheets and general ledger software. These are discussed below.

Electronic spreadsheets

An **electronic spreadsheet** is a grid of cells formed by the intersection of rows and columns into which data and formulas are entered. The spreadsheet can be used to analyse business data and solve everyday business problems. The spreadsheet market is dominated by Excel.

Spreadsheets can be used to develop business budgets and offer the facility to experiment with the budget data and budget outcomes by allowing an analysis of 'what if?' alternative budget scenarios and outcomes. The alternative outcomes of the various 'what if?' scenarios are instantaneously available. Other applications commonly handled by spreadsheets include inventory records (including price lists), inventory control, depreciation schedules, accounts receivable accounting, payroll processing and record keeping.

General ledger programs

Most businesses use some type of computerised accounting system and these systems are collectively referred to as **general ledger software** or general ledger packages. Although some businesses still use accounting software developed in-house (usually as a component of a wider management information system), a wide range of general ledger software is commercially available and some of the best known packages are Accpac, Attaché, MYOB, QuickBooks and Sybiz.

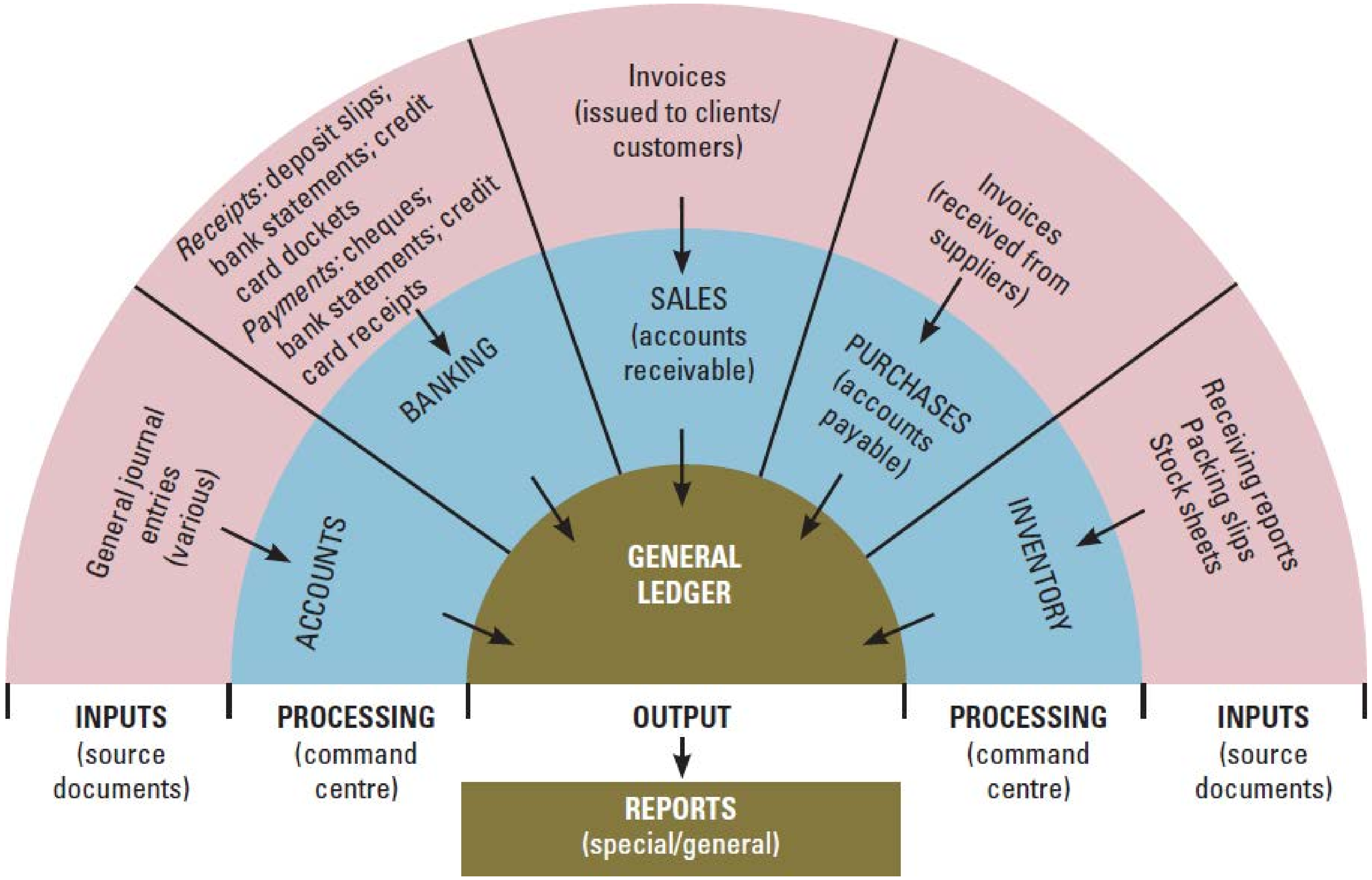
The software consists of a series of modular programs covering each of the major functional areas of accounting — sales (accounts receivable), purchases (accounts payable), cash receipts and banking, cash payments and banking, inventory, and payroll.

Other specialist modules are also available, e.g. time billing and product costing. The separate modules or programs are integrated and collectively access and provide input to the general ledger module, which is central to all packages, just as it is in manual systems of accounting.

Data input for each of the modules is obtained from source documents (handwritten or computer produced), and is processed by the software of the integrated modules. All output, including special and general reports, is produced on demand by the program. All programs are available in various configurations or 'packages', each tailored to the particular needs of businesses based on business size, nature and number of employees, and determined by the range of the accounting functions or modules required. For example, a service business has no need to purchase a package providing accounting modules for inventory and product costing.

To cater for the varying needs of businesses, MYOB Australia Ltd, for example, offers a variety of accounting software programs for both the Windows and Macintosh and they can be Desktop only or Desktop and Cloud — MYOB AccountRight Live Basics includes only Accounts, Banking and Sales modules; MYOB AccountRight Live Standard, which includes modules for Accounts, Banking, Sales, Purchases and Inventory; MYOB AccountRight Live Plus, which includes modules for Accounts, Banking, Sales, Time Billing, Purchases and Payroll. Reckon Accounts (previously known as Quickbooks and Quicken) also offers a similarly packaged range of accounting software products. The structure of a typical integrated software package, based on the structure of MYOB Accounting (version 19) is illustrated in figure 7.11.

Figure 7.11 General ledger integrated software — based on MYOB Accounting (version 19)



Note that all accounting software programs follow the same principles and procedures as the manual accounting system covered earlier in this chapter. Data recorded in the computerised system are obtained from the same source documents as used in the manual system. The programs make use of a general ledger containing control accounts for accounts receivable, accounts payable, inventory and payroll (if available in the program) in a similar way as in manual accounting. Although special journals are not used as the basis of entry to the general ledger, they are available in summary form for analysis within the system and can be viewed and/or printed out if required.

An introduction to MYOB

Accounting software marketed by MYOB is designed around a user-friendly graphical interface that makes the software easy to use under both the Windows and Macintosh platforms. The interface uses a combination of menus and associated drop-down submenus together with pictorial symbols or buttons referred to as icons. Using the mouse to click on a particular button/icon activates a further graphical interface until ultimately a graphical depiction of a data entry form, e.g. an invoice form, is presented on-screen. Data can be entered directly into the data entry screen to be subsequently recorded in the accounting system. If preferred, the user can access all functions of the software through traditional menu bars on the screen, or use a combination of icons and menu bars.

The MYOB Accounting Plus interface

With the MYOB Accounting Plus (version 19) software, the interface shown in figure 7.12 is presented on-screen after the accounting data files have been loaded (Windows). Note that the Sales module icon is selected and the Command Centre graphical interface is shown on the screen. Note the other functional areas available as command centres — Accounts, Banking, Sales, Time Billing, Purchases, Payroll, Inventory, and Card File (a database of recorded information on personnel, customers, suppliers and employees). The Card File data can be accessed by all the other modules.

Figure 7.12 MYOB Accounting Plus (version 19) Command Centre screen

All the command centres in MYOB are similar in appearance, and consist of the following components.

1. ***Menu bar.*** This is the traditional menu bar with drop-down lists that provide access to all functions within MYOB including command centres. Some commands/actions that cannot be accessed through the command centres are available through these menus.
2. ***Title bar.*** This indicates the current accounting data file loaded in the program.
3. ***Command centre icons.*** Clicking on one of the command centre icons, which represent major accounting functions (command centres in MYOB Accounting Plus (version 19) are shown), gives access to the accounting functions available under that command centre that appear as a text-based flowchart — see ***Flowchart***.
4. ***Flowchart.*** The flowchart, which differs depending on the command centre activated, provides text-based icons that, when selected, provide access to commands and actions relevant to the particular command centre. Note that access to the various commands can also be achieved using the single letter underlined in each of the options.
5. ***Other options.*** Clicking on the down-arrow for each of the alternatives presents a drop-down list of options giving quick access to accounting reminders, account information, commonly used reports, and analysis of operations.

The graphical user interface and the components illustrated above for MYOB can generally be found in all general ledger software programs.

Recording transactions in MYOB

In the preceding section the graphical user interface for MYOB Accounting Plus (version 19) was shown and the essential components explained. User interfaces are used to enter accounting data into accounting packages. Data are entered into the system via one of two main approaches, depending on the nature of the transaction and its documentation.

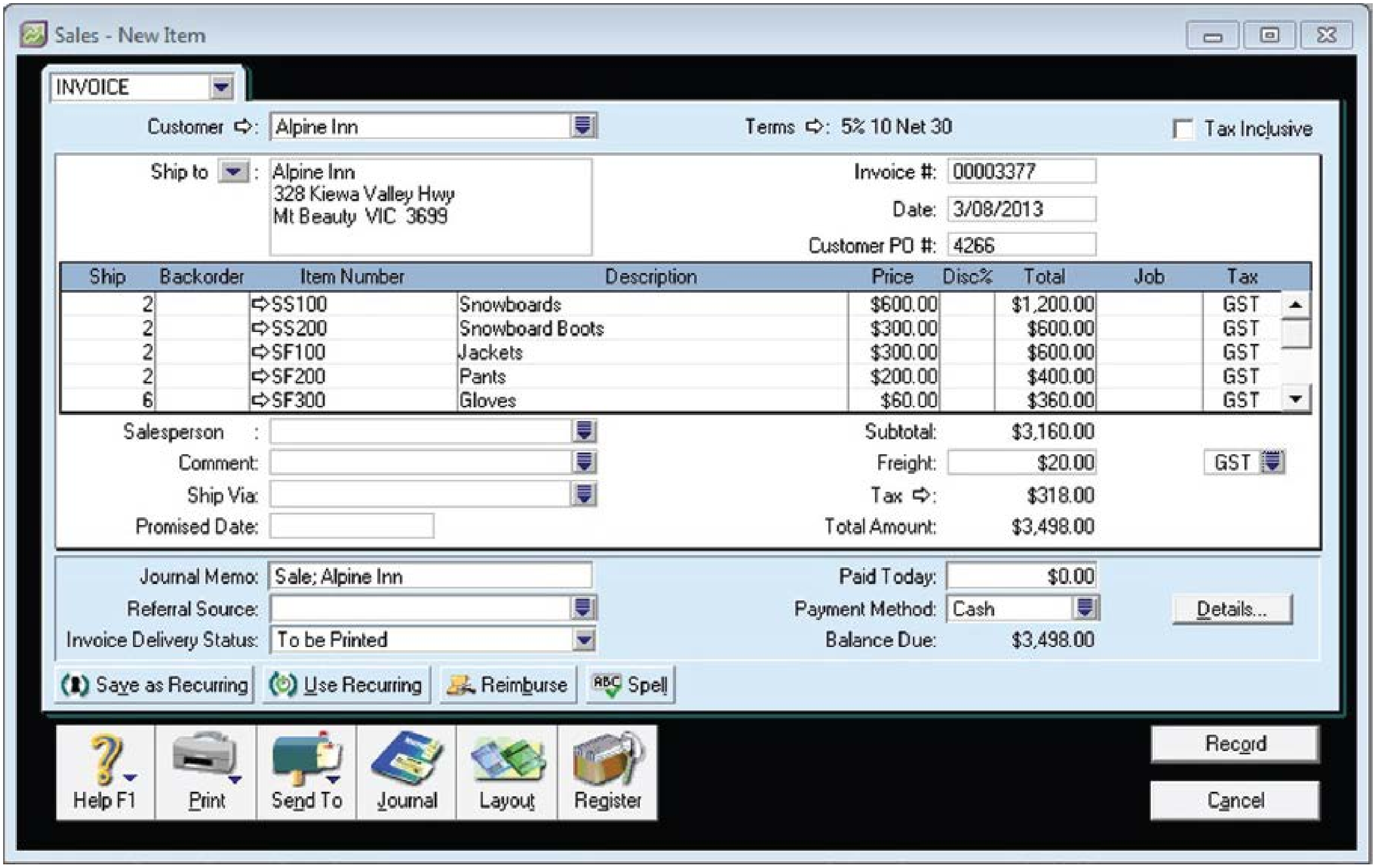
1. Information is extracted from traditional source documents and entered into the accounting system using an entry screen in a form similar to the source document being recorded. For example, the details on a purchases invoice received from a supplier are entered into the fields of an on-screen purchase invoice.
2. Data are entered and a source document is generated in the one process. In this approach, data are entered into the accounting system using an entry screen in the form of the source document being generated. For example, the details of a sale to a customer are entered into the fields of an on-screen sales invoice, and the sales data are then recorded in the system. The sales invoice can then be printed out at that time or later to provide the traditional hard copy of the invoice.

To illustrate the second of these approaches, assume that on 1 July 2013 the firm Ski Products Pty Ltd wishes to invoice a client, Mountain Lake Resort, for $6100 of goods and $20 freight plus 10% GST. Client details already recorded in the program's customer database show the client's address as Lakeview Crescent, Bogong, Victoria 3699. The terms of sale are 5% 10 days and net 30 days. (If the client is new, MYOB has a facility for entering new customer/client details at the point where the invoice is being prepared.)

If using MYOB Accounting Plus, the computer operator will open the Sales Command Centre window and click on the Enter Sales icon (or press the letter 'I' on the keyboard) in the flowchart window. A blank invoice will then appear on the screen.

Note that the enter screen appears in the predetermined format. The printed version will appear in the same format as that shown on the screen. The system automatically enters the invoice number and the current date. However, these can be changed by the user if necessary. Client details are also automatically entered if details are already stored in the system (in the Card File in MYOB). The on-screen invoice when the relevant fields have been completed appears as shown in figure 7.13.

Figure 7.13 MYOB Accounting Plus (version 19) completed invoice screen



INVOICE

Customer: Alpine Inn

Terms: 5% 10 Net 30

☐ Tax Inclusive

Ship to: Alpine Inn
328 Kiewa Valley Hwy
Mt Beauty VIC 3699

Invoice #: 00003377

Date: 3/08/2013

Customer PO #: 4266

Ship	Backorder	Item Number	Description	Price	Disc%	Total	Job	Tax
2		SS100	Snowboards	$600.00		$1,200.00		GST
2		SS200	Snowboard Boots	$300.00		$600.00		GST
2		SF100	Jackets	$300.00		$600.00		GST
2		SF200	Pants	$200.00		$400.00		GST
6		SF300	Gloves	$60.00		$360.00		GST

Salesperson:

Comment:

Ship Via:

Promised Date:

Subtotal: $3,160.00

Freight: $20.00 GST

Tax: $318.00

Total Amount: $3,498.00

Journal Memo: Sale; Alpine Inn

Referral Source:

Invoice Delivery Status: To be Printed

Paid Today: $0.00

Payment Method: Cash

Balance Due: $3,498.00

Once the operator is satisfied that correct data are entered in the fields of the on-screen invoice, the data are recorded in the system by clicking the Record button on the bottom right of the screen. If a printed copy of the invoice is required at this point, it can be printed by clicking on the Print icon at the bottom left of the screen. At this point, a new blank invoice appears on the screen.

Clicking the Save & Close button records the invoice details and returns the user to the Customer Navigator screen. Clicking the Save & New button records the details and presents a new blank invoice.

In terms of accounting, the procedures described above for MYOB result in the same entries being made in the ledgers of the system. In the general ledger, the Accounts Receivable Control account is debited for $6732, the Sales Revenue (or similarly named) account is credited for $6100, Freight is credited for $20 and the GST Payable account is credited for $612. In the Accounts Receivable subsidiary ledger, the account of Mountain Lake Resort is debited for $6732. Note that all commercially available packages now handle the processing of GST automatically based on the GST codes established by the user.

The procedures for recording other types of accounting transactions (e.g. purchases of goods and services, cash receipts and cash payments) are similar to those used for recording a credit sale as illustrated previously. A number of accounting software providers (e.g. MYOB and QuickBooks) produce trial versions of their general ledger software packages, which are available online for a small charge. Versions of the software, including documentation, demonstrations and tutorials, can be downloaded from or viewed on the respective marketers' websites.

Computerised accounting — advantages and disadvantages

A computerised accounting system can offer many advantages; however, some problems associated with the use of computers need to be recognised. Some of the major advantages and disadvantages are described below.

Advantages

- ***Reduction in processing costs.*** The low cost of hardware and software and the availability of user-friendly packages such as MYOB and Reckon give computerised accounting systems a cost advantage over manual systems.
- ***Speed of processing.*** Thousands of transactions can be processed at high speed, and high-speed printers enable output at

thousands of lines per minute.

- ***Error reduction.*** Once programmed, the computer is virtually error-free compared with manual systems, which are much more prone to human error. But control procedures must exist to ensure accuracy of data input. Input processing is facilitated by computer help and interactive feedback.
- ***Automatic posting.*** All posting is performed automatically at high speed and virtually error-free (accurate data input is essential, however).
- ***Automatic production of documents and reports.*** The system can be programmed to produce up-to-date reports on request, thus providing owners/managers with more timely and relevant reports. Also, various accounting documents such as invoices, cheques and statements can be produced automatically.
- ***Improved reporting and decision making.*** A wide range of reports beyond the scope of manual systems can be produced in seconds, such as analyses of sales by territory, salespeople, products and customers. The system gives greater inventory control and detailed reports on inventory movements are instantly available.
- ***Faster response time.*** A wide range of queries can be answered very quickly, such as queries from customers regarding their current balances. Stock levels of a particular item of inventory are always available.

Disadvantages

- ***Failed systems.*** Some advantages may not be realised because of hardware, software or personnel problems. Inappropriate or unsuitable programs may cause system failure. People without the necessary expertise may also cause problems. Regular backing up of files is essential.

- ***Power failure.*** Power failure, power surges and lightning strikes can cause the whole system to crash, so all systems require back-up records.
- ***Viruses.*** Undetected viruses can destroy all files in the system, so security is a high priority.
- ***Hackers.*** Unauthorised people may gain access to computer files and make amendments or gain access to confidential information.
- ***Fraud.*** People both within or outside the organisation may gain access and use the computer to cover up cases of fraud or embezzlement.

LEARNING CHECK

☐ Electronic spreadsheets can be used to analyse business data and develop business budgets by using ‘what if?’ analyses.

☐ General ledger software, such as MYOB, consists of integrated modular programs covering the major functional areas of accounting. The modules provide input to the general ledger module, which is central to all packages.

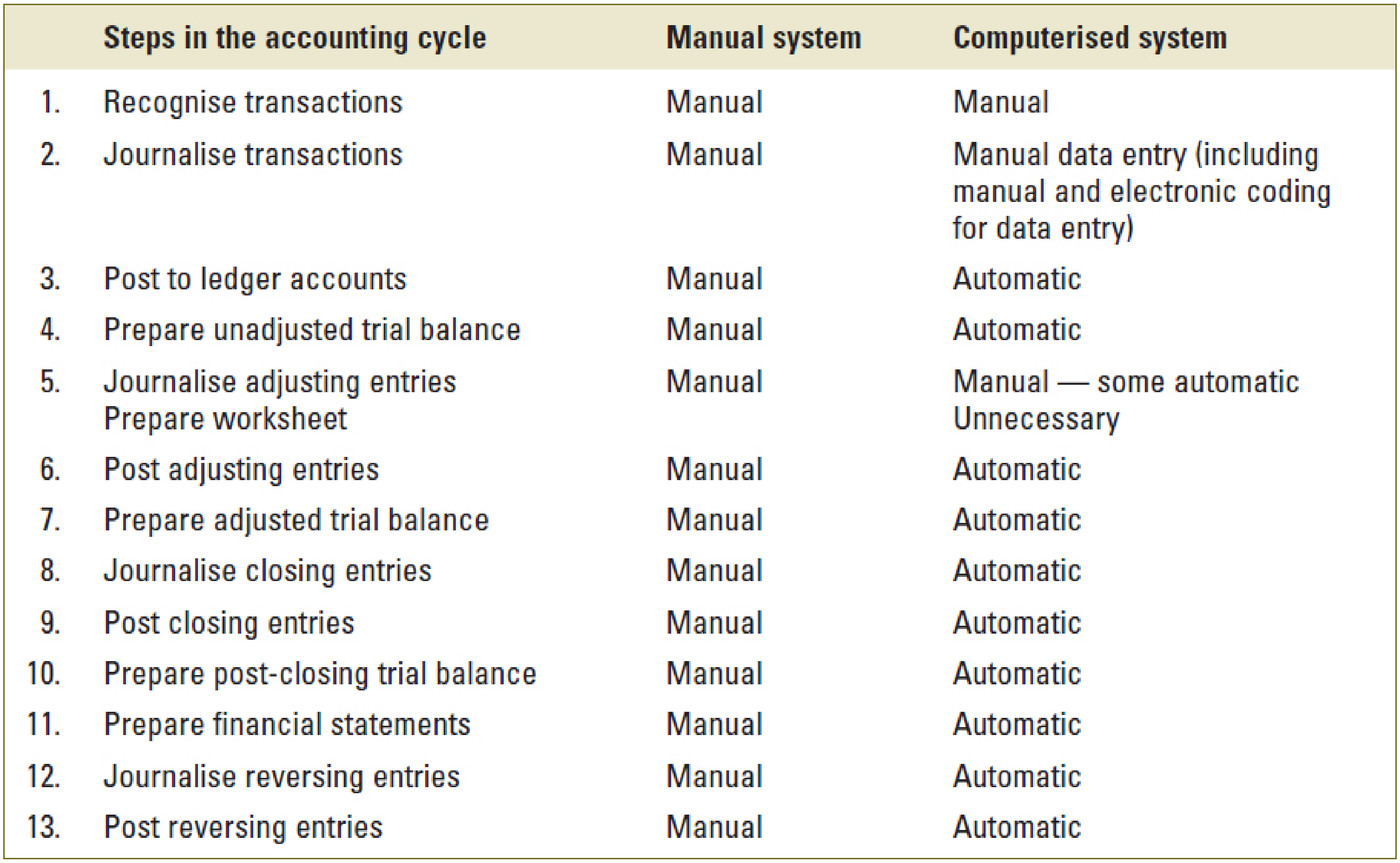
☐ General ledger integrated software includes inputting data from source documents (such as invoices, bank statements and receiving reports), processing that data via the various modules (such as sales, banking and inventory), and outputting information in the form of special or general reports.

7.7 Accounting cycle — manual and computerised

LO 7 **Outline how the accounting cycle works in manual and computerised systems.**

This chapter has presented in some detail the procedures used to record common business transactions in a manual system of accounting, as well as an overview of computerised accounting systems. The steps in the accounting cycle depicted in figure 5.1 (p. 184) are carried out differently under manual and computerised systems. Apart from the analysis and recognition of transactions, and the input of data, computerised systems perform all steps automatically. Table 7.1 presents a comparison of how the steps in the accounting cycle are performed under manual and computerised accounting systems.

Table 7.1 Accounting cycle — manual versus computerised



	Steps in the accounting cycle	Manual system	Computerised system
1.	Recognise transactions	Manual	Manual
2.	Journalise transactions	Manual	Manual data entry (including manual and electronic coding for data entry)
3.	Post to ledger accounts	Manual	Automatic
4.	Prepare unadjusted trial balance	Manual	Automatic
5.	Journalise adjusting entries Prepare worksheet	Manual	Manual — some automatic Unnecessary
6.	Post adjusting entries	Manual	Automatic
7.	Prepare adjusted trial balance	Manual	Automatic
8.	Journalise closing entries	Manual	Automatic
9.	Post closing entries	Manual	Automatic
10.	Prepare post-closing trial balance	Manual	Automatic
11.	Prepare financial statements	Manual	Automatic
12.	Journalise reversing entries	Manual	Automatic
13.	Post reversing entries	Manual	Automatic

LEARNING CHECK

- ☐ Computerised accounting systems have the advantages of speed of processing, automatic posting, automatic production of reports and hence reduction in processing costs.
- ☐ Computerised accounting systems can be subject to power failures, viruses, system failures and hackers.

KEY TERMS

Accounting system	p. 282
Cash payments journal	p. 299
Cash receipts journal	p. 295
Control account	p. 289
Electronic spreadsheet	p. 312
General ledger software	p. 312
Internal control system	p. 285
Purchases journal	p. 293
Sales journal	p. 291
Special journal	p. 291
Subsidiary ledger	p. 289
Systems analysis	p. 283
Systems design	p. 283
Systems implementation and review	p. 283

DISCUSSION QUESTIONS

1. ‘Accountants should not concern themselves too much with elaborate administrative and accounting controls, since any system is only as good as the human element in the system.’ Do you agree? Explain your answer.
2. What is an internal control system? Discuss the principles involved in establishing a good internal control system. Discuss also the limitations of internal control systems.
3. ‘In a system that uses several special journals, it is not necessary to have a general journal.’ Do you agree? Explain.
4. During the month of October, credit sales for a business actually amounted to $963 534. However, an error of $10 000 had been made in totalling the sales column of the sales journal. When and how will this error be discovered?

5. Identify the major sources of cash receipts recorded in a cash receipts journal. Identify the major transactions that involve cash payments in the cash payments journal.
6. An inventory purchase on credit of $10 000 plus GST was correctly recorded in the purchases journal of a business. However, when postings were made to the accounts payable in the subsidiary ledger, the purchase was incorrectly recorded as $1100; however, the correct amount was posted to the inventory subsidiary ledger. When and how will this error be discovered?
7. Critically examine the following remark: ‘By having the post ref column in all of the special journals, the recording process is slowed down, and too much unnecessary detail is provided to very little purpose.’
8. Explain the treatment of sales returns and allowances and purchases returns and allowances in special journals, under both the periodic and perpetual inventory systems. How are these items recorded on an inventory record in the subsidiary ledger? Why?
9. Which journal(s) are used to record the following transactions? The business is registered for GST.
   - **(a)** The introduction of cash and office equipment by the owner on establishment of the business.
   - **(b)** The cash payment of rent in advance.
   - **(c)** The purchase of inventory on credit.
   - **(d)** The purchase of office supplies on credit.
   - **(e)** The sale of inventory on credit.
   - **(f)** The sale of some pieces of office equipment on credit.
   - **(g)** The collection of cash from a customer.
   - **(h)** The return of part of the inventory purchased previously on credit from a supplier.
   - **(i)** The adjusting entry for rent that is still prepaid at the end of the accounting period.
   - **(j)** The adjusting entry for unused office supplies.
   - **(k)** The closing entry for expenses at the end of the period.
10. ‘Since nearly all accounting functions today are computerised, there is really no need for accountants to have an understanding of manual accounting systems.’ Do systems designers need to understand manual accounting systems? Discuss.

EXERCISES

Exercise 7.1 SUBSIDIARY LEDGER AND CONTROL ACCOUNT LO 3

J. Fry uses subsidiary ledgers and special journals in his accounting system. The accounts in the accounts payable subsidiary ledger for the most recent month are shown below:

E. Koumi

CP	150	Bal. (b/d)	0
		P	200

A. Packer

CP	180	Bal. (b/d)	180
		P	250
		P	210

T. Trinh

CP	230	Bal. (b/d)	490
		P	255

Y. Yue

CP	195	Bal. (b/d)	195
		P	310

Required

A. Prepare the Accounts Payable Control account showing the final balance of the account, assuming that all transactions are reflected in the above accounts.
B. Prepare a schedule of accounts payable to reconcile the subsidiary ledger with the control account.

Exercise 7.2 RECONCILING A CONTROL ACCOUNT AND A SUBSIDIARY LEDGER LO 3

Assume that Xinshan’s China sold merchandise to three customers during June on credit, as shown in the following Accounts Receivable Control account.

General Ledger
Accounts Receivable Control

Date	Explanation	Post Ref	Debit	Credit	Balance
1/6	Balance				4 000
5/6		GJ8		630	3 370
30/6		S9	5 275		8 645
30/6		CR6		3 700	4 945

Subsidiary Ledger

A. Pedder

1/6	Bal.	1 560	5/6	GJ8	360
9/6	S9	2 900	10/6	CR6	1 560

E. Kilmore

1/6	Bal.	1 320	17/6	CR6	1 320
15/6	S9	1 750			

M. Farnsworth

1/6	Bal.	1 120	24/6	CR6	840
27/6	S9	1 075			

Required

Explain why the control account and related subsidiary ledger are not in balance. All postings to the subsidiary ledger were correct. Prepare the corrected control account.

Exercise 7.3 RECONCILING A CONTROL ACCOUNT AND A SUBSIDIARY LEDGER **LO 3**

Cosimo's Cookware bought merchandise from three suppliers during September on credit, as shown in the Accounts Payable Control account on the next page.

General Ledger
Accounts Payable Control

Date	Explanation	Post Ref	Debit	Credit	Balance
1/9	Balance				14 680
6/9		GJ		165	14 845
10/9		GJ		310	15 155
14/9		GJ	585		14 570
30/9		P		7 800	22 370
30/9		?	?		5 425

Subsidiary Ledger

C. Cooper

	30/9	Bal.	2 710

G. Grocke

	30/9	Bal.	1 580

O. Oldfield

	30/9	Bal.	?

Required

A. Determine the missing amount (?) in the control account and insert the correct posting reference in the post ref column.
B. Determine the ending balance in the account of O. Oldfield.

Exercise 7.4 RECONCILING A CONTROL ACCOUNT AND A SUBSIDIARY LEDGER LO 3

Overton's Outdoor Centre is owned and run by Kym Overton, using the periodic inventory system and balancing her books at month-end. At 30 April 2016, the balances of the Accounts Receivable Control and Accounts Payable Control accounts were $59 560 and $34 570 respectively. Ignore GST.

A summary of her dealings with customers and suppliers for May 2016 follows:

Customers	Bal. b/d 1/5/16	Credit sales	Sales returns (unpaid goods)	Cash received	Discount allowed
Moses & Co.	$15 540	$4 900	(9 May) $150	$12 620	$260
T. Nitshke	6 300	2 800	(11 May) 60	6 300	—
Nguyen Traders	12 000	6 160	—	10 970	220
Sampson Sales	21 280	2 240	—	16 360	400
Warner Wholesalers	1 500	1 950	(16 May) 90	1 500	—
Saito Sales	2 100	4 600	—	1 700	—
Pfitzner Pty Ltd	840	1 680	—	820	20
Rainsford Ltd	—	2 120	—	—	—

Suppliers	Bal. b/d 1/5/16	Credit purchases	Purchases returns (unpaid goods)	Cash paid	Discount received
Aster Suppliers	$19 500	$4 940	(8 May) $230	$14 000	$280
Pekoe Products	—	2 470	—	—	—
Rainsford Ltd	13 900	7 600	(18 May) 280	11 460	230
R. Katspaw	1 170	1 820	—	1 150	20

The following additional information is available:

1. At Rainsford Ltd's request, on 31 May, Kym Overton offset the amount owed by Rainsford Ltd against the amount owing to it.
2. Overton's Outdoor Centre paid Rainsford Ltd on 6 May, sold goods to Rainsford Ltd on 10 May, and purchased goods from Rainsford Ltd on 19 May.

Required

A. Prepare the Accounts Receivable Control and Accounts Payable Control ledger accounts for the month of May 2016.
B. Prepare Rainsford Ltd's accounts payable subsidiary ledger account for the month of May 2016 in the accounting records of Overton's Outdoor Centre.
C. Prepare schedules of accounts receivable and accounts payable as at 31 May 2016.

Exercise 7.5 MATCHING TRANSACTION TYPES WITH JOURNALS LO 4

Fiona Spottiswoode uses a purchases journal, a cash payments journal, a sales journal, a cash receipts journal and a general journal. Indicate in which journals the following transactions are most likely to be recorded.

1. Issue of shares for cash.

2. Purchased inventories on credit.
3. Cash purchase of inventories (cheque no. 32162).
4. Sale of marketable securities (shares) for cash.
5. Sales of inventory on credit.
6. Received payment of a customer's account.
7. Received adjustment note for defective goods, which were purchased on credit and returned to the supplier.
8. Owner withdrew inventory for personal use.
9. Owner withdrew cash.
10. Payment of monthly rent by cheque.
11. Cash refund to a customer who returned inventory.
12. Year-end closing entries.

Exercise 7.6 MATCHING LEDGER ACCOUNTS WITH JOURNALS LO 4

The accounting system for Barker Ltd uses a general journal and special journals for sales, purchases, cash receipts and cash payments.

Cash at Bank 110

(a)	18 280	(g)	14 200

Discount Received 450

		(i)	330

Accounts Receivable Control 120

(c)	56 160	(e)	15 560

Purchases 510

(h)	1 580		
(k)	20 160		

Accounts Payable Control 210

(j)	13 320	(l)	20 160

Purchases Allowances 515

		(m)	250

Sales 410

		(b)	56 160
		(d)	3 560

Discount Allowed 520

(f)	240		

Required

A. What journal would be the most probable source of the postings in the accounts?
B. Which of the above accounts would be affected if GST was recorded?

Exercise 7.7 RECORDING TRANSACTIONS IN PURCHASES AND SALES JOURNALS LO 4

Casey Ltd's accounting system uses special journals and subsidiary ledgers. The following transactions occurred during October 2016 (GST is ignored). All sales are n/30.

Oct.	3	Purchased inventory from P. Forza, $1030, terms 2/15, n/30.
	11	Sold goods to B. Harley on credit, invoice 435, $750.
	13	Purchased office furniture on credit from R. Gerace, terms n/30, $5460.
	18	Paid P. Forza for goods purchased on 3 May.
	24	Purchased goods from C. Dixon, $970, terms 2/15, n/30.
	27	Sold inventory to K. Lee for cash, $1090.

Required

A. Ignoring GST, enter the appropriate transactions into the purchases and sales journals for October, and explain how each would be posted to accounts in the ledgers.
B. Assuming that the company is registered for the GST, enter the appropriate transactions into suitably ruled purchases and sales journals, and explain how each would be posted to accounts in the ledgers.

Exercise 7.8 JOURNALS, SUBSIDIARY LEDGERS AND CONTROL ACCOUNTS LO 3, 4

Mazzone and Associates Accounts Receivable Control account in the general ledger on 1 September was $17 755. The subsidiary ledger contained the following accounts receivable accounts and balances at the same date: Quach $2330, Ridley $4277, Scafidi $3337, Talbot $7811. At 30 September, a summary of entries made in the journals shown were:

General journal: Talbot returned goods for a credit of $178.

Sales journal: Recorded credit sales were: Talbot $1290, Quach $2180, Ubhey $1670, Scafidi $1780.

Cash receipts journal: Cash amounts received from accounts receivable were (no discounts were allowed): Talbot $3730, Ubhey $660, Scafidi $2120, Ridley $2920, Quach $2010.

Required

A. Enter the opening balances of the control account and subsidiary ledger accounts and post the September entries and totals in the three journals to the accounts (ignore GST).
B. Prepare a schedule of accounts receivable at 30 September and reconcile the total with the control account in the general ledger.

Exercise 7.9 RELATING SALES AND CASH RECEIPTS JOURNALS TO THE SUBSIDIARY LEDGER LO 3, 4

Model Trains Enthusiasts Shop's sales and cash receipts journals for the month of April are presented below. The accounts receivable subsidiary ledger is reconciled with the general ledger account each month. On 1 April, the subsidiary ledger had four accounts: A. Tilden — $430; L. Tran — $520; N. Summers — $630; T. Schmidt — $450.

Sales Journal Page 16

Date	Invoice	Account	Amount
1/4	1407	J. Wayne	340
6/4	1408	A. Tilden	200
7/4	1409	L. Tran	320
18/4	1410	N. Summers	180
27/4	1411	B. Pham	290

Cash Receipts Journal Page 14

Date	Account	Cash	Accounts Receivable
4/4	A. Tilden	220	220
12/4	L. Tran	420	420
24/4	N. Summers	320	320
26/4	T. Schmidt	460	460

Required

A. Establish a T account for each customer's account in the subsidiary ledger and an Accounts Receivable Control account. Post the amounts to the accounts receivable subsidiary ledger and the general ledger using the information in the journals shown.
B. Prepare a schedule of the accounts in the subsidiary ledger and compare its total with the balance in the control account.

Exercise 7.10 RELATING PURCHASES, CASH PAYMENTS AND THE GENERAL JOURNAL TO THE SUBSIDIARY LEDGER AND CONTROL ACCOUNT LO 3, 4

At 1 February, the following information was extracted from the records of David Hendry (assume no GST):

Schedule of Accounts Payable
as at 31 January 2016

D. Geelan	$ 525
Banks Ltd	5 250
Nguyen Ltd	5 560
	$11 335

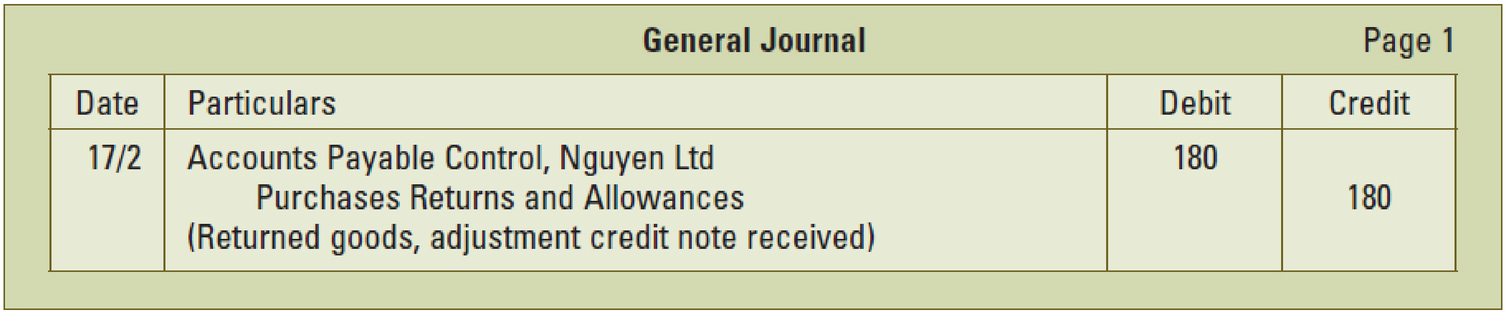
Extracts from the purchases, cash payments and general journals for February are presented below:

Purchases Journal Page 1

Date	Account	Amount
3/2	D. Geelan	520
9/2	Banks Ltd	3 620
12/2	Peter Ltd	2 430
22/2	G. Harker	2 350

Cash Payments Journal Page 1

Date	Account	Chq. No.	Accounts Payable
5/2	Banks Ltd	532	5 100
18/2	D. Geelan	533	1 045
28/2	Nguyen Ltd	534	5 260



General Journal Page 1

Date	Particulars	Debit	Credit
17/2	Accounts Payable Control, Nguyen Ltd Purchases Returns and Allowances (Returned goods, adjustment credit note received)	180	 180

Required

A. Establish running balance ledger accounts for each supplier in the subsidiary ledger and an Accounts Payable Control account in the general ledger. Post the above amounts from the journals to the subsidiary ledger and control accounts.
B. Prepare a schedule of accounts payable as at 28 February and compare the total with the balance in the control account.

Exercise 7.11 ACCOUNTING WITH SEVERAL JOURNALS LO 3, 4

Di Ieso & Daughters uses sales, purchases, cash receipts, cash payments and a general journal (ignore GST). The following column totals were taken from the entity's journals at the end of June:

1. Sales journal	$7 520
2. Purchases journal	4 010
3. Cash receipts journal:	
(a) Cash	6 215
(b) Accounts receivable	5 210
(c) Sales	1 050
(d) Discounts allowed	48

4. Cash payments journal:	
(a) Cash	$5 912
(b) Accounts payable	5 010
(c) Discounts received	100
(d) Purchases	1 000

The balance in the Accounts Receivable Control account on 1 June was $3006 and the Accounts Payable Control account balance was $4260.

Required

A. At the end of June, the total amount from the sales journal should be posted to what account or accounts?
B. At the end of June, the total amount from the purchases journal should be posted to what account or accounts?
C. For each column total in the cash receipts and the cash payments journals, specify whether it would be posted to the general ledger as a debit or a credit, and to which account.
D. After the amounts in the journals have been posted to the general ledger for June, what would be the balances in the Accounts Receivable Control and the Accounts Payable Control accounts?

Exercise 7.12 ACCOUNTING WITH SEVERAL JOURNALS LO 3, 4

Crawford & Co. uses sales and purchases journals in its accounting system. The following transactions took place during April (ignore GST):

April 2 Purchased inventory on credit from Bryden Ltd, invoice 567, $560, terms 2/10, n/30.
5 Purchased inventory on credit from H. Rider, invoice 342, $580, terms 2/10, n/30.
12 Sold inventory on credit to G. Pier, invoice 154, $1325.
15 Sold inventory on credit to Sonic Ltd, invoice 155, $1120.
21 Purchased inventory on credit from L. Lambert, invoice 1435, $675, 2/10, n/30.
25 Sold inventory on credit to Cavallaro Ltd, invoice 156, $760.
29 Sold inventory on credit to L. Burton, invoice 157, $465, 2/10, n/30.

Required

A. Establish all necessary general ledger accounts, accounts receivable subsidiary ledger accounts, and accounts payable subsidiary ledger accounts. Use the following account numbers: Accounts Receivable Control, 104; Accounts Payable Control, 201; Sales, 400; Purchases, 500.
B. Enter the April transactions in the appropriate journals.
C. Post the data from the journals to the appropriate general ledger and subsidiary ledger accounts.
D. Develop a schedule of accounts receivable and a schedule of accounts payable as at 30 April to prove the subsidiary ledger balances against the control accounts.

Exercise 7.13 RELATING JOURNALS TO THE ACCOUNTS PAYABLE CONTROL ACCOUNT LO 3, 4

Hansford and Harding use purchases, cash payments and general journals with their accounting system. They also maintain an accounts payable subsidiary ledger, which contains the following accounts at 31 July:

L. Jessup

Date	Explanation	Post Ref	Debit	Credit	Balance
1/7	Balance				5 340
12/7		CP4	2 850		2 490

R. Kent

Date	Explanation	Post Ref	Debit	Credit	Balance
1/7	Balance				2 780
20/7		CP4	1 800		980

W. Lau

Date	Explanation	Post Ref	Debit	Credit	Balance
6/7		P6		5 100	5 100
21/7		P6		980	6 080
28/7		CP4	4 300		1 780

A. Machell

Date	Explanation	Post Ref	Debit	Credit	Balance
1/7	Balance				3 600
15/7		CP4	960		2 640
22/7		P6		760	3 400

B. Nicholson

Date	Explanation	Post Ref	Debit	Credit	Balance
1/7	Balance				6 120
15/7		GJ8	3 200		2 920
21/7		CP4	2 920		—

Required

A. Prepare an Accounts Payable Control account assuming all postings for the month of July have been made, showing the appropriate posting references.
B. Explain how each of the amounts that appear in the Accounts Payable account were obtained.

Exercise 7.14 RELATING JOURNALS TO THE ACCOUNTS RECEIVABLE CONTROL ACCOUNT **LO 3, 4**

Rowett and Sharrad uses sales, cash receipts and general journals in its accounting system. The firm also maintains an accounts receivable subsidiary ledger, which contained the following accounts on 31 August:

S. White

Date	Explanation	Post Ref	Debit	Credit	Balance
1/8	Balance				4 670
13/8		CR5		3 210	1 460

R. Riding

Date	Explanation	Post Ref	Debit	Credit	Balance
4/8		S7	1 800		1 800
18/8		S7	1 500		3 300
23/8		CR5		1 320	1 980

J. Bean

Date	Explanation	Post Ref	Debit	Credit	Balance
9/8		S7	3 420		3 420
21/8		CR5		1 300	2 120

S. Lau

Date	Explanation	Post Ref	Debit	Credit	Balance
1/8	Balance				3 450
12/8		CR5		1 520	1 930
25/8		S7	780		2 710

B. Beast

Date	Explanation	Post Ref	Debit	Credit	Balance
1/8	Balance				4 100
17/8		GJ5		2 320	1 780
31/8		CR6		1 780	—

Required

A. Prepare an Accounts Receivable Control account after all postings for the month of August have been made with the necessary posting references.
B. Explain how all the amounts that appear in the Accounts Receivable Control account were obtained.

Exercise 7.15 DETECTING ERRORS IN AN ACCOUNTING SYSTEM

LO 1, 3, 4

Alana Szeqczyk's accounting system uses sales, purchases, cash receipts and cash payments journals and a general journal. At various times during the year, the following errors have occurred.

1. The amount column in the sales journal was incorrectly totalled.
2. The amount of a bank loan entered in the 'other accounts' column of the cash receipts journal was posted as a debit to bills payable.
3. A credit purchase for $700 was posted as $70 in the accounts payable subsidiary ledger.
4. A purchases return, journalised in the general journal, was posted to the Accounts Payable Control account and to the Purchases Returns and Allowances account but was not posted to the accounts payable subsidiary ledger.
5. A subtraction error was made in determining a customer's account balance in the accounts receivable subsidiary ledger.
6. The purchases journal was incorrectly totalled.
7. An error was made in totalling the cash column in the cash payments journal.
8. A sales allowance for goods sold on credit was entered in the general journal. The entry was posted to only two accounts — the accounts receivable subsidiary account and to Sales Returns and Allowances.
9. A cheque to a supplier, net of the applicable discount received, was correctly entered in the cash at bank column at the net amount and in the accounts payable column at the gross amount. No entry was made in the discount received column.
10. Discount allowed was not entered in the cash receipts journal. The amount of the supplier's invoice was entered in the accounts receivable column and the net amount of the cheque was entered in the cash at bank column.

Required

Specify a procedure that would detect each error.

PROBLEMS

Basic
Moderate
Challenging

Problem 7.1 ACCOUNTING WITH SALES JOURNAL AND PURCHASES JOURNAL LO 4

Tymonns Traders Ltd uses sales and purchases journals in its accounting system. The following transactions occurred during April 2016.

April 5 Purchased merchandise on account from Smythe Ltd, invoice 354, $1500, terms 2/10, n/30.
8 Purchased merchandise on account from Ellis Ltd, invoice 376, $780, terms 2/10, n/30.
10 Sold merchandise on account to B. Morran, invoice 345, $2280.
16 Sold merchandise on account to Bryde Ltd, invoice 346, $2640.
19 Purchased merchandise on account from R. Rober, invoice 828, $630, terms 2/10, n/30.
26 Sold merchandise on account to G. Green, invoice 347, $1840.
29 Sold merchandise on account to Bryde Ltd, invoice 348, $1200.

Required

A. Complete the requirements below, assuming the business is not registered for the GST.
    1. Establish all necessary general ledger accounts, accounts receivable subsidiary ledger accounts, and accounts payable subsidiary ledger accounts. Use the following account numbers: Accounts Receivable, 1200; Accounts Payable, 2200; Sales, 4100; Purchases, 5100.
    2. Enter the transactions for April in the appropriate special journals.
    3. Post the data from the journals to the general ledger and subsidiary accounts.
    4. Prepare a schedule of the accounts receivable subsidiary ledger and the accounts payable subsidiary ledger as at 30 April to prove that their totals reconcile with the balances of the control accounts.

B. Complete sections 1–4 of requirement A, assuming the business is registered for the GST. Add the accounts 1300 GST Receivable and 2300 GST Payable to the accounts list in requirement A.1.

Problem 7.2 DETERMINING AN APPROPRIATE ACCOUNTING SYSTEM LO 1, 3, 4

Bush Basher Bikes sells off road motorbikes on both a credit and cash basis. They stock a full range of spare parts and accessories. The business also employs a full-time mechanic who carries out servicing and repairs on motorbikes — those sold by Bush Basher Bikes as well as those purchased from other suppliers.

Prenumbered invoices are issued for all sales and services provided. Terms are strictly n/30 and no discounts are offered. Total revenues last financial year amounted to $820 000 — $680 000 from the sale of motorbikes, $42 000 for parts and accessories, and $98 000 for servicing and repairs. All receipts are banked daily, and a petty cash system is in operation. Cash discounts are offered by all suppliers, and the business ensures that all discounts on offer are taken. All payments are made by online bank transfers with frequent payments made to suppliers, transport companies for delivery costs on purchases, sponsorships and advertising. The mechanic is paid on every second Friday. The office manager is paid an annual salary for managing the office, and for performing the manual accounting duties.

The business currently has a manual system of accounting using special journals and subsidiary ledgers. Rev Head, the owner of Bush Basher Bikes, is considering implementing a tried and tested integrated accounting package.

Required

A. Identify the subsidiary ledger or ledgers that would be used in the current system.

B. Identify the special journals that would be appropriate in the current system, and suggest appropriate columns that would be used in each of them.
C. Should a computer-based accounting system be implemented? Explain the reasons for your decision.

Problem 7.3 CONTROL ACCOUNTS FOR RECEIVABLES AND PAYABLES **LO 3**

Ravilero Ltd uses the periodic inventory system and has control accounts and subsidiary ledgers for trade receivables and payables. The general ledger control account balances at 1 June 2016 were:

Accounts receivable control	$116 480
Accounts payable control	136 600

The following transactions took place during June:

Credit inventory sales for the month	$152 800
Cash inventory purchases for the month	110 400
Credit inventory purchases for the month	77 400
Cash payments to creditors for the month	152 000
Discount received for the month	3 600
Discount allowed for the month	2 800
Cash receipts from customers for the month	155 400
Cash inventory sales for the month	11 200
Jun. 8: Goods (unpaid) returned by customer	11 100
11: Bill payable accepted by creditor in respect of balance of account	3 290
16: Goods (paid for) returned to supplier and received cash	8 500
21: Offset of accounts receivable and payable recorded	11 200
23: Goods (paid for) returned by customer and they were given cash	7 900
28: Goods (unpaid) returned to supplier	10 400

Required

Prepare the Accounts Receivable Control and Accounts Payable Control ledger accounts for the month of June 2016.

Problem 7.4 RECONCILING MONTHLY STATEMENT — ACCOUNTS PAYABLE **LO 3**

You are the person responsible for the accounts payable ledger of Cameron Ltd. You are concerned that the statement of account for the month ending 30 June 2016 received from Deveson Ltd does not agree with the records shown for Deveson Ltd in the accounts payable subsidiary ledger. As a valued customer of Deveson Ltd, Cameron Ltd receives a trade discount of 5% off the marked price of all goods purchased. In addition, a 2% discount is allowed for payments made within 10 days of the statement date. Ignore GST.

Deveson Ltd records all sales to Cameron Ltd net of trade discount. The statement dated 30 June shows that Cameron Ltd owes $19 680 to Deveson Ltd. An examination of the account of Deveson Ltd in the subsidiary ledger and other records reveals the following discrepancies.

1. Because of a clerical error, the credit side of the account of Deveson Ltd had been overstated by $585.
2. The cash discount of $660, which had been deducted when making the May payment, had been disallowed by Deveson Ltd because the payment was received more than 10 days after the statement date.
3. Invoice no. D443 for a gross amount (before trade discount) of $820 had been entered on the statement twice.
4. Invoice no. D452 for a gross amount (before trade discount) of $1080 had been correctly entered on the statement but no records of the invoice had been recorded in the books of Cameron Ltd even though the goods had been received.
5. Invoice no. D587 for $150 had been incorrectly debited on the statement as $510, and this invoice had not been entered in the purchases journal or the subsidiary ledger as the goods had not yet been received.
6. Adjustment (credit) note no. C321 for $125 received from Deveson Ltd had not been entered in the subsidiary ledger, and had been entered on the statement as an invoice.

Required

Prepare a reconciliation memo that reconciles the amount owing on the statement of account from Deveson Ltd to the amount that Cameron Ltd actually owes at 30 June. Assuming that payment will be made on 9 July 2016, what is the amount of the interbank transfer to Deveson Ltd's bank account to pay the amount owing?

Problem 7.5 ACCOUNTING WITH SALES, CASH RECEIPTS AND GENERAL JOURNALS **LO 3, 4**

Galluzo Ltd uses a sales journal, a cash receipts journal, a general journal and an accounts receivable subsidiary ledger within a periodic inventory system. The terms of all credit sales are 2/10, n/30. Where necessary, round amounts to the nearest dollar.

The accounts receivable subsidiary ledger balances on 31 May 2016 were:

A. Guthrie	$ —
C. Haigh	3 980
E. Katsambit	750
G. Lintvelt	3 316
I. Dowden	3 184
K. Coldwell	1 990

$<u>13 220</u>

The trial balance as at 1 June included, among others, the following accounts:

Account no.	Account title	Account balance
1-1100	Cash at Bank	$ 17 950
1-1150	Marketable Securities	30 485
1-1200	Accounts Receivable Control	13 220
1-1300	Bills Receivable	—
2-2200	Bills Payable	2 400
4-4100	Sales	207 030
4-4150	Sales Returns and Allowances	2 572
4-4200	Dividend Revenue	1 005
4-4300	Interest Revenue	905
4-4400	Gain on Sale of Marketable Securities	280
5-5200	Discount Allowed	1 930

The following transactions during June were recorded in the sales, cash receipts or general journals (ignore GST):

June 2 Sold inventory on credit to A. Guthrie, $1930, invoice 671.

4 Issued an adjustment note to K. Coldwell for defective goods sold on credit during April for $180. Received a cheque from E. Katsambit for payment of a May purchase, $750.

7 Sold inventory on credit to G. Lintvelt, $270, invoice 672.

10 Sold inventory on credit to C. Haigh, $430, invoice 673.

12 Received payment in full from K. Coldwell.

14 Received payment from A. Guthrie for invoice 671.

17 Borrowed $20 000 cash from the bank for 3 months at 10%. Issued a bill payable in favour of the bank to cover the loan.

20 Sold inventory for cash, $295.

21 Sold marketable securities that had been held as a short-term investment for $12 000 cash. The securities were originally purchased for $12 000.

24 Received a 60-day promissory note (bill receivable) from G. Lintvelt in settlement of his account receivable balance.

25 Received a cheque from C. Haigh for $4410, for payment on his account.

26 Sold inventory on credit to E. Katsambit, $540, invoice 674.

30 Received payment from E. Katsambit for invoice 674.

Required

A. Record the June transactions in the appropriate journals. Make all postings to the appropriate general ledger accounts and to the accounts receivable subsidiary ledgers.
B. Reconcile the subsidiary ledger with the Accounts Receivable Control account in the general ledger.

Problem 7.6 ACCOUNTING WITH SALES, CASH RECEIPTS AND GENERAL JOURNALS **LO 3, 4**

Refer to the details and data presented in problem 7.5, and assume further that Galluzo Ltd and its suppliers are registered for the GST. The following additional accounts are in the general ledger and appear in the trial balance — 2-2300 GST Receivable and 1-1300 GST Payable. Assume both accounts had a zero opening balance.

Required

A. Record the June transactions in the appropriate journals. Make all postings to the appropriate general ledger accounts and to the accounts receivable subsidiary ledgers.
B. Reconcile the Accounts Receivable subsidiary ledger with the Accounts Receivable Control account in the general ledger.

Problem 7.7 ACCOUNTING FOR TRANSACTIONS WITH SEVERAL JOURNALS **LO 3, 4**

A. Elliott started business on 1 July 2016. The accounting system includes a sales journal, a purchases journal, a cash receipts journal, a cash payments journal and a general journal. The chart of accounts shows the following titles:

100	Cash at Bank	410	Sales Returns and Allowances
110	Accounts Receivable Control	420	Discount Received
115	Prepaid Insurance	500	Purchases
150	Office Equipment	503	Purchases Returns
201	Accounts Payable Control	510	Discount Allowed
210	Loan Payable	550	Rent Expense
300	A. Elliott, Capital	560	Insurance Expense
400	Sales	570	Sundry Expenses

During June, the transactions were as follows (ignore GST):

June 1 A. Elliott deposited $50 000 capital in the business bank account.
3 Paid rent for June, $8800, by interbank transfer.
4 Borrowed $30 000 from the Regional Australia Bank.
5 Purchased inventory on credit from Hendry Ltd, $11 300, invoice 743, terms 2/10, n/30.
6 Purchased inventory on credit from Kelly Ltd, $4400, invoice 312, terms 2/10, n/30.
8 Purchased office equipment, $2520, using the business' debit card.
Sold inventory on credit to Leschev Ltd, $4620, terms 2/10, n/30, invoice 532.
10 Paid for inventory purchased from Hendry Ltd, invoice 743, using an interbank transfer.
12 Received an adjustment (credit) note from Kelly Ltd for inventory returned, $250.
12 Forwarded cheque no. 977 to Kelly Ltd for balance owing on invoice 312.
13 Sold inventory for cash, $1575.
16 Had an automatic direct debit from the bank account for a 12-month insurance policy, $3150. The effective date of the policy was 1 June.
17 Purchased inventory on credit from L. Mihai, $6720, invoice 763, terms n/30.
20 Purchased inventory on credit from F. Nunn, $3690, invoice 506, terms 2/10, n/30.
23 Sold inventory on credit to B. Bear, $3150, invoice 533, terms 2/10, n/30.
25 Received payment from Leschev Ltd in full settlement of invoice 532.
28 Sold inventory on credit to Nottage Ltd, invoice 534, $5250, terms 2/10, n/30.
Paid F. Nunn in full for goods purchased on 20 June, cheque no. 978.
30 Issued cheque no. 979, $320, for sundry expenses.
Issued an adjustment (credit) note to Nottage Ltd for defective goods sold on 28 June, $125.
30 Received payment from B. Bear in settlement of invoice 533.

Required

Record the transactions in the appropriate journals. Indicate how the postings would be made from the journals by entering the relevant posting references.

Problem 7.8 JOURNALISING TRANSACTIONS, POSTING, AND PREPARATION OF A TRIAL BALANCE LO 3, 4

Zhang Ltd uses sales, purchases, cash receipts, cash payments and a general journal along with subsidiary ledgers for accounts receivable and accounts payable. Zhang Ltd's financial year ends on 31 December 2016. The post-closing trial balance as at 30 June 2016 and schedules of balances of the subsidiary ledgers are presented on the next page.

ZHANG LTD
Post-closing Trial Balance
as at 30 June 2016

1-100	Cash at bank	$ 26 680	
1-110	Accounts receivable control	15 440	
1-150	Inventory	25 280	
1-170	Office equipment	53 000	
1-175	Accumulated depreciation – office equipment		$ 7 800
2-200	Accounts payable control		20 590
3-300	Share capital		60 000
3-350	Retained earnings		32 010
4-400	Sales		—
4-405	Sales returns	—	
4-410	Discount received		—
5-500	Purchases	—	
5-505	Purchases returns		—
5-512	Discount allowed	—	
5-530	Rent expense	—	
5-540	Sundry expenses	—	
5-550	Commissions expense	—	
		$120 400	$120 400

Schedule of Accounts Receivable
as at 30 June 2016

Moorman Ltd	$ 3 600
Lo Ltd	7 210
North Ltd	4 630
	$15 440

Schedule of Accounts Payable
as at 30 June 2016

Higgins Ltd	$ 7 200
G. McClure	5 150
Ventura Ltd	8 240
	$20 590

The following transactions occurred in July 2016:

July 1 Received a cheque from Moorman Ltd for payment on account, $3600.
2 Paid rent for July, $3700, by interbank transaction to Buildings Ltd.
3 Sold inventory to Kemp Ltd on credit, invoice 342, $4200, terms 2/10, n/30.
5 Purchased inventory on credit from F. Falla, $4900, invoice 243, terms 2/10, n/30.
7 Paid G. McClure for inventory purchased previously (no discount), $5150, by interbank transfer.
Received payment from Kemp Ltd for full settlement of invoice 342.
10 Received an adjustment note from F. Falla for inventory returned, $200.
11 Paid F. Falla in full for invoice 243 by interbank transfer.
12 Paid sales commissions, $9580, by interbank transfer.

15 Received a cheque from Lo Ltd in part payment of the account, $3600, no discount applicable.
16 Paid $14 000 for new office equipment, cheque no. 304.
18 Cash sales, $2620.
19 Sold inventory on credit to Moorman Ltd, $4430, invoice 343, terms 2/10, n/30.
20 Sold inventory on credit to C. Gable, $2200, invoice 344, terms 2/10, n/30.
24 Paid Ventura Ltd for inventory purchased in May, $8240, cheque no. 305.
25 Cash sales, $2800.
26 Issued cheque no. 306 to pay sundry expenses, $1280.
30 North Ltd directly credited Zhang's bank account for $4630, for payment of account.
30 Received a cheque from C. Gable in payment of invoice 344.

Required

A. **1.** Journalise the transactions in the appropriate journals.
2. Make all necessary postings for the month.
3. Prepare a trial balance of the general ledger as at 31 July 2016, and reconcile subsidiary ledgers with their control accounts.

B. Rework requirements A.1, A.2 and A.3 assuming that recording of GST is required. Add 1-800 GST Receivable and 2-250 GST Payable to the post-closing trial balance (assume both accounts have zero balances). Round amounts to the nearest dollar. Sales commissions do not incur GST.

Problem 7.9 SPECIAL JOURNALS, SUBSIDIARY LEDGERS, PERPETUAL INVENTORY SYSTEM **LO 3, 4**

James Schroeder uses sales, purchases, cash receipts, cash payments and general journals along with subsidiary ledgers for accounts receivable and accounts payable in the accounts of his business. The business has adopted the perpetual inventory system. The post-closing trial balance as at 31 May 2017 and the subsidiary ledger schedules follow. Ignore GST.

Post-closing Trial Balance

as at 31 May 2017

	Debit	Credit
Cash at bank	$15 120	
Accounts receivable control	7 560	
Inventory	12 600	
Equipment	25 200	
Accumulated depreciation – equipment		$ 2 520
Accounts payable control		10 080
J. Schroeder, Capital		47 880
	$60 480	$60 480

Schedule of Accounts Receivable

as at 31 May 2017

Slatter Ltd	$2 270
Thorne Ltd	3 530
B. Walker	1 760
	$7 560

Schedule of Accounts Payable

as at 31 May 2017

Abdul-Ahad Ltd	$2 520
P. Bengasi	3 530
Cavallaro Ltd	4 030
	$10 080

The following transactions took place during June 2017:

June 1 Received a cheque from B. Walker for payment on account, $1760.
2 Sold inventory to Cheng Ltd on credit, invoice 534, $2270, terms 2/10, n/30. The inventory sold had cost $1260.
3 Paid rent for June, $1890, internet transfer to Property Management Ltd.
4 Paid Abdul-Ahad Ltd for goods purchased previously, $2520, by interbank transfer.
6 Purchased inventory on credit from J. Dabrowski, $2650, invoice 776, terms 2/10, n/30.
Received payment from Cheng Ltd for full settlement of invoice 534.
9 Received a credit note from J. Dabrowski for inventory returned, $120.
10 Paid J. Dabowski the amount due on invoice 776 by issuing cheque no. 235.

11 Paid sales commissions, $5170 by interbank transfer.

12 Received a cheque from Thorne Ltd in part payment of the account, $1760.

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14 Issued cheque no. 236 for new office equipment, $7560.

16 Cash sales, $1410. Cost of the goods sold was $980.

18 Sold inventory on credit to B. Walker, $2400, invoice 535, terms 2/10, n/30. Cost of the inventory sold amounted to $1400.

19 Sold inventory on credit to Grifoni Ltd, $1130, invoice 536, terms 2/10, n/30. Cost of sales, $890.

22 Paid Cavallaro Ltd for goods purchased in May, $4030 by interbank transfer.

23 Cash sales, $1575. Cost of the goods sold amounted to $1040.

26 Issued cheque no. 237 to cover sundry expenses, $690.

28 Received an interbank credit from Slatter Ltd, $2270, for payment on account.

30 Received a cheque from Grifoni Ltd for payment of account.

Required

A. Enter the transactions in the appropriate journals.
B. Make all necessary postings for the month to both the general and subsidiary ledgers.
C. Prepare schedules of accounts receivable and accounts payable as at 30 June 2017.
D. Prepare the trial balance as at 30 June 2017.

Problem 7.10 SPECIAL JOURNALS, PERIODIC INVENTORY SYSTEM

GTS **LO 3, 4**

Chee Yong Chaw began his business on 1 July 2016. The business balances its books at month-end and uses special journals and the periodic inventory system. Transactions for July 2016 were as follows:

July 1 Chee Yong Chaw invested $36 000 cash and $21 000 office equipment into the business.

2 Purchased inventory from L. Cao on account for $9000 plus GST; terms 2/15, n/30.

Paid July rental of $3600 plus GST; by interbank transfer to Prime Properties Ltd.

3 Purchased inventory from Difabio Ltd on account for $7300 plus GST; terms n/30.

6 Sold inventory to J. Ellis on account for $2000 plus GST; terms 2/15, n/30.

7 Received July rental of $900 plus GST for space sublet to Perth Services.

8 Purchased stationery supplies for $2000 plus GST; cheque no. 124.

10 Purchased inventory for cash $1980 plus GST.

13 Sold inventory to Giola Ltd on account for $4500 plus GST; terms 2/10, n/30.

14 Purchased inventory from O. Hee on account for $6000 plus GST; terms 2/10, n/30.

15 Paid L. Cao for 2 July purchase with an interbank transfer.

19 Received $2156 from J. Ellis in payment of her account.

Sold inventory to O. Kaddish on account for $4600 plus GST; terms 2/10, n/30.

21 Received $4851 from Giola Ltd in payment of its account.

Sold inventory to Modra Ltd on account for $3600 plus GST; terms 2/10, n/30.

22 Paid O. Hee for 14 July purchase; cheque no. 125.

23 Purchased inventory from L. Cao on account for $5500 plus GST; terms 2/15, n/30.

26 Sold inventory for cash, $2900 plus GST.

28 Returned defective inventory that cost $1200 to L. Cao.

29 Sold merchandise to I. Nizic on account for $8200 plus GST; terms 2/10, n/30.

30 Purchased merchandise from A. Romeo on account for $1800 plus GST; terms 1/10, n/30.

Paid month’s salary of office assistant, $3200 by interbank transfer.

Required

A. Prepare journal entries for July 2016, using appropriate journals.
B. Prepare the following ledger accounts (T format) for July 2016:
   1. Accounts Receivable Control
   2. Accounts Payable Control
   3. Cash at Bank
   4. Purchases.

Problem 7.11 SPECIAL JOURNALS AND FINANCIAL STATEMENTS

LO 3, 4

On 1 June 2017, Aaron Draper began trading as a landscape material supplier. The transactions for the month of June 2017 were as follows (ignore GST):

June 1 Draper transferred $120 000 from his personal savings to his business bank account.
1 Purchased shop fittings for cash: paid by cheque no. 231, $80 000.
Paid March rent by cheque no. 232, $3000.

2 Purchased goods for resale on credit from Ailmore Ltd, $10 000.
3 Banked cash sales totalling $3440.
4 Sold goods on credit to G. Horwood: invoice no. 543, $1520.
5 Purchased goods for resale from Groundcover Ltd: paid by interbank transfer, $3400.
6 Banked cash sales totalling $1640.
8 Purchased goods for resale on credit from Bachleda Ltd, $4800.
9 Sold goods on credit to M. Kruger: invoice no. 544, $1960.
10 Purchased office stationery from Biggs Ltd: paid by bank transfer, $480.
11 Banked cheque for return of defective goods that had been purchased for cash, $380.
12 Banked cash sales totalling $3600.
14 Issued cheque no. 233 for miscellaneous expenses, $720.
16 Refunded a customer for a cash sale returned: paid refund by cheque no. 234 for $680.
17 Purchased goods for resale on credit from Cirocco Ltd, $12 000.
18 Paid freight on goods purchased to Trucks Ltd: paid by bank transfer, $260.
19 Sold goods on credit to C. Charles: invoice no. 545, $2120.
21 Banked cash sales totalling $3180.
22 Internet bank transfer to Ailmore Ltd in full settlement of its account, less a cash discount of 3%.
23 Banked cheque received from G. Horwood in full settlement of his account, less a 2% cash discount.
24 Interbank transfer to Aaron Draper's personal account for drawings, $2400.
Banked cash sales totalling $4800.
26 Paid June salaries by interbank transfers to of B. Thwaites, $2240; T. Vuong, $2600.
30 Paid June electricity: cheque no. 235, $300.
Paid June telephone to Copus Ltd by internet transfer, $224.
Banked cash sales totalling $5600.

The following additional information is available.

1. A physical inventory count held at the close of business on 30 June 2017 revealed that the cost price of inventory on hand amounted to $12 000.
2. The June salary of a part-time sales representative amounting to $800 was not paid until 2 July 2017.
3. Depreciation on shop fittings for the month of June amounted to $152.

Required

A. Record the above transactions in the appropriate journals for the business of Aaron Draper.
B. Post the entries in the journals to the general ledger as well as to the debtors and creditors subsidiary ledgers.
C. Prepare the trial balance of Aaron Draper at 30 June 2017.
D. Prepare schedules of debtors and creditors at 30 June 2017, and reconcile the totals with the balances of the related control accounts in the trial balance.
E. Prepare the income statement of Aaron Draper for the month ended 30 June 2017.
F. Prepare the balance sheet of Aaron Draper at 30 June 2017.

Problem 7.12 CORRECTION OF ERRORS **LO 1, 3, 4**

The accountant for House of Hardware, Ricky Hammer, was unable to complete the trial balance of the business's general ledger. The total of the credit column was less than the total of the debit column by $1760. In addition, the balance of the Accounts Receivable Control account in the general ledger was greater than the total of the schedule of accounts receivable by $1280, and the schedule of accounts payable was more than the credit balance of the Accounts Payable Control account by $520.

Ricky's analysis identified the following errors.

1. A purchase invoice for $540 was recorded in the purchases journal as $450. The purchase was duly posted to the ledgers.
2. There was an error of addition in the debit column in the trial balance, which resulted in the total of the debits being $250 more than it should be.

3. An error of addition had occurred in the sales journal that resulted in the total of the sales journal being recorded and posted as $32 765 instead of the correct figure of $32 675.
4. An allowance of $425 on a sale to a customer was correctly recorded in the general journal and correctly posted to the general

ledger. However, the amount was posted to the debit side of the customer's account in the accounts receivable ledger, instead of being credited.

5. Interest revenue of $860 had been correctly recorded in the cash receipts journal, but had been posted as $680 to the debit of the Interest Expense account.
6. A major supplier, Richard Manning, had also bought goods to the value of $520 during the last week of the financial year. A general journal entry to off-set the $520 against the amount owing by Manning was recorded in the general journal and correctly posted to the general ledger subsidiary ledger control accounts. However, the set-off was not recorded in the subsidiary ledgers.

Required

A. Ricky believes that after the above are taken into account, the trial balance will balance. Show your calculations to verify that he is correct.

B. Which of errors 1–6 need to be corrected for the reconciliation of the schedules of accounts receivable and accounts payable to their respective control accounts? Explain, showing calculations, how the adjustments for the errors will achieve reconciliation.

Problem 7.13 DETECTING ERRORS IN AN ACCOUNTING SYSTEM **LO 1, 2, 4**

On 30 June 2016 the following information appeared in the accounting records of Ndung and Mkoka.

Balance of Accounts Receivable Control account, $3725
Total of schedule of accounts receivable, $1970
Balance of Accounts Payable Control account, $5010
Total of schedule of accounts payable, $2745

Because the schedules and control account balances do not agree, an investigation was carried out. The following errors and omissions were discovered.

1. The schedule of accounts payable was understated by $545 because of error in addition.
2. The balance of a debtor was accidentally left out of the schedule of accounts receivable, $25.
3. The total of the accounts payable column in the cash payments journal is overstated by $200 because of an addition error.
4. $108 owed by a debtor was written off as uncollectable. The write-off was recorded in the general journal, but the entry was never posted.
5. The total payment of $1955 made to creditors was debited to the Accounts Receivable Control account in error.
6. The sales journal was incorrectly added and posted as $2139. The total should have been $2319.
7. A credit note given for $40 was recorded as $60 in the general journal and posted as such.
8. An invoice for $125 was recorded correctly in the purchases journal but posted to the creditor's account as $152.
9. A cheque received from a debtor for $65 was dishonoured. To record the dishonoured cheque, an entry was made in the cash payments journal but included in the accounts payable column in error. The posting to the debtor's account in the subsidiary ledger was done correctly.

Required

Rule columns as shown below. Indicate how the errors and omissions should be corrected by inserting the amounts in the correct columns. Obtain totals for the columns and reconcile the control totals to the respective schedule totals.

No.	Accounts Receivable Control		Schedule of Accounts Receivable		Accounts Payable Control		Schedule of Accounts Payable	
	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr

Problem 7.14 COMPREHENSIVE ACCOUNTING SYSTEM **LO 1, 4, 5**

Salmon Swim Centre uses a sales journal, purchases journal, cash receipts journal, cash payments journal and a general journal. The business also maintains subsidiary ledgers for accounts receivable and accounts payable, in addition to the related control accounts (ignore GST). The relevant account balances as of 31 December 2016 were as follows:

Account no.	Account title	Account balance Debit	Account balance Credit
100	Cash at Bank	$ 10 800	
120	Accounts Receivable	13 200	
140	Inventory	19 000	
200	Equipment	250 000	
300	Accounts Payable		$ 11 000
330	Bank Loan		120 000
400	S. Salmon, Capital		162 000
500	Sales		—
510	Sales Returns and Allowances	—	
520	Discount Received		—
600	Purchases	—	
610	Discount Allowed	—	
		$293 000	$293 000

The accounts receivable and accounts payable subsidiary ledger balances were as follows:

Accounts receivable	
M. Falzon	$ 2 640
S. H. Guan	1 760
R. Jamal	4 400
A. Khalil	3 300
K. Mezzini	1 100
	$13 200

Accounts payable	
Nelligan Ltd	$ 2 200
Pellham & Co	2 200
Yap United Ltd	6 600
Total	$ 11 000

The following transactions occurred during the first quarter of 2017:

Jan.	3	S. H. Guan took advantage of the 2% sales discount and paid off her account.
	11	Sold a $2000 item to K. Mezzini on account, invoice 401.
	15	Purchased $6000 of inventory from Pellham & Co on credit. The terms were 2/10, n/30.
	18	Received $1200 from M. Falzon on his account. No discount was allowed.
	20	Paid $2200 to Pellham & Co on its previous account balance. No discount was taken.
	25	Paid $6000 owing to Pellham & Co, taking advantage of the 2% discount.
Feb.	10	A cash sale of $4000 was made to a new customer, E. Tsiros.
	14	R. Jamal paid $2200 on his account, outside the discount period.
	23	Sold a $1000 item to K. Mezzini on account, invoice 402.
	28	Paid $4400 on the Yap United Ltd account. No discount was received.
Mar.	4	Purchased $8000 in inventory from Nelligan Ltd on credit. Terms were n/30.
	16	Sold a $100 item to A. Khalil on account, invoice 403.
	22	Paid $4400 on the Nelligan Ltd account.
	27	A $100 sales allowance was given to A. Khalil, due to a defective product.

Required

A. Enter the first quarter's transactions in the appropriate journals.
B. Open the necessary general ledger accounts, the accounts receivable subsidiary ledger accounts, and the accounts payable subsidiary ledger accounts.
C. Post the data from the journals to the appropriate general ledger and subsidiary ledger accounts.
D. Prepare a schedule of accounts receivable and accounts payable as at 31 March 2017, to confirm the balances in the control accounts.
E. Prepare a trial balance as at 31 March 2017.

Problem 7.15 COMPREHENSIVE PROBLEM **GTS** **LO 1, 3, 4**

The post-closing trial balance of Raschella Ltd as at 1 November 2016 contained the following normal balances:

Account no.	Account title	Account balance
1100	Cash at Bank	$ 60 000
1120	Accounts Receivable	7 270
1130	Bills Receivable	750
1140	Inventory	80 000
1150	Prepaid Insurance	—
1160	GST Receivable	2 000
1210	Delivery Vehicle	40 000
1215	Accumulated Depreciation – Delivery Vehicle	4 000
1220	Office Equipment	24 000
1225	Accumulated Depreciation – Office Equipment	4 000
2110	Accounts Payable	5 780
2120	Bills Payable	—
2150	GST Payable	3 500
3110	Share Capital	192 000
3120	Retained Earnings	4 740
4110	Sales	—
4115	Sales Returns and Allowances	—
4120	Discount Received	—
5110	Purchases	—
5115	Purchases Returns and Allowances	—
5120	Discount Allowed	—
5130	Rent Expense	—
5140	Electricity Expense	—
5150	Salaries Expense	—

Subsidiary ledger balances at 31 October 2016 were:

Accounts Receivable

Customer	Date of sale	Terms	Amount
M. Peterson	28 October	2/10, n/30	$2100
N. Mobius	30 October	2/10, n/30	2310
D. Temby	18 October	2/10, n/30	2860

Accounts Payable

Creditor	Date of purchase	Terms	Amount
Warnes Ltd	19 October	1/30, n/60	$1640
B. Lau	10 October	n/30	2650
Gent Ltd	23 October	1/15, n/30	1490

Transactions for the month of November 2016 were:

Nov. 1 Bought inventory from B. Lau on credit, $2400 plus GST; terms n/30.

Purchased 1 year's insurance cover for $900 plus GST, cheque no. 400.

3 Inventory sold to N. Mobius last month was returned. Issued an adjustment note for the amount of $110 (including GST).

Received a cheque from M. Peterson to cover the sale made on 28 October.

4 Paid Gent Ltd cheque no. 401 for purchase of 23 October.

Purchased inventory from Warnes Ltd on credit, $2400 plus GST; terms 1/10, n/60.

5 Issued cheque no. 402 for $1650 to B. Lau on account, and issued a 60-day 10% bill payable for the balance due on the purchase of 10 October.

8 Paid November rent of premises $540 plus GST, cheque no. 403.

Paid Warnes Ltd for the purchase of 19 October, cheque no. 404.

10 Sold inventory on account to M. Menz, $4500 plus GST; terms 2/10, n/30.

Received cash for the issue of additional share capital, $30 000(GST-free).

11 Received cheque for $1430 from D. Temby in part payment of the sale made on 18 October, together with a bill

receivable for the balance due.

12 Sold merchandise to M. Peterson on account, $4800 plus GST; terms 2/10, n/30.

13 Purchased goods on credit from Gent Ltd, $3960; terms 1/15, n/30 (including GST).

14 Paid fortnightly salaries by cheque no. 405, $1200.

Cash sales from 1 November to 14 November, $9200 plus GST.

18 Sold goods to D. Temby on account, $4650 plus GST; terms 2/10, n/30.

Received an adjustment note from Gent Ltd for $77 for defective goods returned (includes GST).

19 Forwarded cheque no. 406 to ATO to cover GST owing from previous month, $1500.

20 M. Menz forwarded a cheque for $1320 on account; no discount was allowed.

Purchased goods for cash. Issued cheque no. 407 for $5400 plus GST.

21 Received a cheque from M. Peterson for $660 and a promissory note (bill receivable) for the balance of his account; no discount was allowed.

26 D. Temby forwarded a cheque for the goods sold on 18 November.

27 Paid Gent Ltd for the purchase made on 13 November, cheque no. 408.

28 Paid fortnightly salaries with cheque no. 409, $1200 (GST-free).

30 Electricity account paid by cheque no. 410, $210 plus GST.

Cash sales from 15 November to 30 November, $9000 plus GST.

Purchased inventory on credit from Gent Ltd, $3630; terms 1/15, n/30 (includes GST).

Required

A. Record the November transactions (round amounts to the nearest dollar) in appropriate special journals and the general journal.
B. Open running balance accounts in the subsidiary ledgers and their control accounts in the general ledger, and enter the opening details of these accounts.
C. Post relevant data from the journals to the appropriate running balance subsidiary ledger accounts.
D. Prepare schedules of accounts receivable and accounts payable as at 30 November 2016, and reconcile to the appropriate subsidiary ledger control accounts in the general ledger.
E. Prepare the GST Payable and GST Receivable accounts as they would appear at 30 November 2016.

DECISION ANALYSIS

Designing an accounting system

Silvertail Petroleum Ltd is a distributor of a range of petroleum products including petrol, oils and grease in a rural area of Australia from its depot based at Gubbo. Petrol is stored in bulk storage tanks at the depot and these tanks are refilled twice weekly by bulk tankers from the refinery. At each refuelling, a receiving report is prepared and sent to the accounting department. Other bulk supplies are replenished as required. The refinery sells on the basis of net 30 days and does not allow discount.

Silvertail Petroleum Ltd operates several delivery trucks that travel to customers in the surrounding district to deliver supplies of fuel and other products. For each delivery a sales docket is prepared on which is recorded the number of litres delivered at each drop. These sales dockets are returned to the accounting department at the end of each day, invoices are prepared by pricing quantities shown on the dockets, and these are mailed to customers. Customers are allowed a discount for payment within 10 days.

The business has twelve employees who are paid on the fifteenth and the last day of each month. Supplies and other expenses are charged to Silvertail Petroleum Ltd as they are incurred.

Required

You have been asked for an opinion on the accounting system that would be most suited to the needs of this company. Give your response to the following queries:

A. Should the company use a sales journal? Why or why not? If a sales journal is used, what procedures would you recommend to record entries in it and to send invoices to customers as soon as possible after deliveries?
B. Is a purchases journal needed, or can all purchases be recorded in the general journal? Explain.

C. Should the company use a cash receipts journal, considering that some 30 to 50 cheques are received by mail each week? If so, what special columns would you use?
D. Should the company use a cash payments journal? Explain.

CRITICAL THINKING

Information technology has changed traditional accounting

Teresa Greene owns and manages a craft and material shop called All Sewn Up. Most of the revenue of All Sewn Up is from the sale of craft materials, although some revenue is made by giving craft lessons to groups of six customers at a time. As Teresa's shop relies on a large number of suppliers of small amounts of different craft materials, she has difficulty keeping track of all her accounts payable. Teresa is not very well organised and so struggles to send out accounts to her customers or collect money from them. Teresa is considering implementing a computerised accounting system as she has been doing a computer course at a local college and feels that it could help her to be more organised.

Required

A. What source documents would be required in a manual accounting system in order to record the sales to customers and receipt of cash, and to ensure correct payment of money to suppliers?
B. In her computer course Teresa learnt that the focus in accounting should not be on bookkeeping but on the use of the information ‘inside the computer’ to make better decisions and to better manage the business. In what ways could a computerised accounting package help Teresa make better decisions and manage her business better?

ETHICS AND GOVERNANCE

Computerised shipping documents

Fremantle Fisheries (FF) operates a fleet of fishing boats out of three ports in Western Australia — Fremantle, Bunbury and Geraldton. Each port has its own fishing fleet and all seafood caught is sold through the Fish Marketing Board, a board established by the state government. The accounting procedures for all sales to the Board are centralised and handled by a computerised accounting system at FF’s head office in Perth. The majority of the company’s employees work on the fishing boats, and are paid bonuses from head office, depending on the volume, type and quality of seafood caught. This means that head office must be able to identify the source of each shipment sent to the Board.

John Dorey, who was originally based in Geraldton and handled the accounting procedures at Geraldton before computerisation, is now based in Perth as manager of the computerised accounting system. His father and two sisters are still based in Geraldton and work for the company on the fishing boats, as do many friends of the family.

Shipping documents are sent to the Perth head office from all three ports, and the source of the shipment is clearly marked in the top right-hand corner of the documents. Occasionally, however, details of the source are missing, and it is not easy to trace the source quickly. Dorey, in his capacity as manager of the system, is keen to keep the system fully operational and up to date, and has instructed the keyboard operator to insert any one of three Geraldton source codes, namely those of his father and two sisters, whenever the source code is missing from the shipping document. The keyboard operator knows that the codes given are those belonging to his boss’s family, but nevertheless complies with the request for fear that non-compliance may lead to his own dismissal.

Required

A. Who are the stakeholders in this situation?
B. What are the ethical issues involved here as a result of Dorey’s request and the action taken by the keyboard operator?
C. If you were the keyboard operator, what action (if any) would you take to prevent this situation occurring? Why?

FINANCIAL ANALYSIS

Refer to the latest financial report of JB Hi-Fi Limited on its web site, www.jbhifi.com.au, and answer the following questions.

1. JB Hi-Fi Limited is one of Australia’s major retail organisations. After reviewing the financial report, what types of different accounting journals, if any, would you expect the company to use?
2. From the statement of cash flows, name the journal(s) or journal summaries in which you would expect to find the following transactions recorded:
   (a) cash receipts from customers
   (b) cash paid to suppliers and employees
   (c) dividends paid
   (d) payments for plant and equipment.
3. From the financial statements and notes in relation to revenues and expenses, name the journal(s) or journal summaries in which you would expect to find the following transactions recorded:
   (a) depreciation and amortisation expenses
   (b) employee benefits expense
   (c) financial services fees revenue
   (d) lease and occupancy expenses.
4. In general journal format, provide entries that could be made by the company to account for all of the items in (2) and (3) above.

Part 3

Equity in business

8 Partnerships: formation, operation and reporting
9 Companies: formation and operations

CHAPTER 8

Partnerships: formation, operation and reporting

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the statement of changes in equity (pp. 41–2, 150)
- the steps in the accounting cycle (p. 184)
- adjusting entries (pp. 132–46)
- closing entries (pp. 189–93)
- the format of financial statements (pp. 37–44, 148–51).

Learning Objectives

After studying this chapter, you should be able to:

1 define a partnership and the major attributes of a partnership (p. 344)
2 state the advantages and main characteristics of the partnership structure of business (pp. 344–6)
3 explain the purpose of a partnership agreement and describe its typical contents (pp. 346–7)
4 describe the special features applicable to accounting for partnerships (pp. 347–8)
5 explain the accounting entries for the formation of a partnership (pp. 348–50)
6 explain the accounting entries for the allocation of profits and losses of a partnership (pp. 350–5)
7 explain the accounting entries for drawings and advances or loans made by partners (pp. 355–7)
8 describe the content of the financial statements of a partnership (pp. 357–9).

Two people. One Vision.

It has taken the bold leadership and countless contributions of people around the world to form the leading global organisation EY is today. Our roots go back to the 19th century and our founders Arthur Young and Alwin C Ernst.

Arthur Young was born in Glasgow, Scotland. He graduated in law, but became interested in banking and investment. In 1890, he moved to the US to pursue his career in accounting. In 1906, he formed an accounting firm, Arthur Young & Company, with his brother Stanley.

Alwin C Ernst was born in Cleveland, USA. After leaving school he worked as a bookkeeper. Then, in 1903, he and his brother Theodore started Ernst & Ernst, a small public accounting firm.

Both Arthur Young and AC Ernst were innovators and appreciated the importance of quality in their work. Ernst pioneered the idea that accounting information could be used to make business decisions and make a difference to clients' organisations. He inspired his people to deliver better service to clients. Young also positioned himself as a business advisor as much as an accountant.

Both men understood the importance of their people. In 1920, Ernst & Ernst's operating philosophy stated: 'The success of Ernst & Ernst depends wholly upon the character, ability and industry of the men and women who make up the organisation.' Young supported the development of professionals. In the 1920s he originated a staff school and, in the 1930s, the firm was the first to recruit from university campuses.

Both firms were also quick to enter the global marketplace. As early as 1924, they allied with prominent British firms: Young with Broads Paterson & Co and Ernst with Whinney Smith & Whinney. These alliances were the first of many for both firms, which opened offices around the world to service their international clients.

AC Ernst and Arthur Young never met in life, but died within days of each other in 1948. However, their philosophies lived on and, in 1989, were brought together when the firms they started combined to create Ernst & Young. The new organisation quickly positioned itself on the leading edge of rapid globalization, new business technologies and continuous business change.

AC Ernst and Arthur Young would surely be proud of the result — a global organisation of 167 000 people sharing their ideals and passion to help clients improve their businesses around the globe.

Source: Ernst & Young 2013, ***Our history***, www.ey.com/au/. © 2014 EYGM Limited. All rights reserved. Reproduced by permission of EY.

Chapter preview

This chapter discusses the partnership structure of business organisations and the applicable accounting procedures. Many of the accounting principles and practices discussed so far are also appropriate for a partnership. Nevertheless, some aspects of partnership accounting are different. These unique aspects involve mainly accounting for equity transactions, allocation of profit or loss, the admission or retirement of a partner from the partnership and winding up the partnership.

Before dealing with the accounting for partnerships, we shall look at some of the general characteristics of a partnership. Partnership law has a significant influence on accounting practice. All states in Australia have adopted a uniform Partnership Act to govern the formation, operation and winding up of partnerships. The main provisions of the Partnership Act are discussed briefly throughout this chapter where it is considered appropriate. More extensive study of the legal aspects of a partnership is part of most business law courses.

8.1 Partnership defined

LO 1 **Define a partnership and the major attributes of a partnership.**

A **partnership** is defined in the Partnership Acts as the relationship that 'subsists between persons carrying on a business in common with a view to profit'. Because a written agreement is not necessary to form a partnership, it is sometimes difficult to determine whether a partnership does in fact exist. Three attributes are necessary for a business partnership to exist.

1. There must be an agreement (verbal or written) between two or more legally competent persons or entities to carry on a business.
2. The business must be operated with a view to earning a profit.
3. Members must be co-owners of the business.

Co-ownership (often the most difficult attribute to determine) involves the right of each partner to share in the profits of the business, the obligation to make good losses, to participate with the other partners in the management of the business, and to own jointly with the other partners the property of the partnership. The right to participate in management may be limited by an express agreement among the partners.

It is important to note that, in legal terms, a partnership is not a separate legal entity; hence it is not legally correct to talk of a partnership doing business. Legally, it is the partners who are carrying on a business. Nevertheless, in the normal commercial environment it is commonplace to treat a partnership as if it was a separate entity or enterprise. A partnership is regarded as a separate accounting entity for accounting purposes, distinct from each partner and any other businesses conducted by them. Note that this is in contrast to the legal entity concept.

LEARNING CHECK

- A partnership is defined as a relationship that exists between two or more persons carrying on a business in common with a view to making a profit.
- Three essential attributes of a partnership are: (1) a verbal or written agreement between two or more legally competent persons to carry on a business; (2) the business is operated with a view to making a profit; and (3) all partners must be co-owners of the business.

8.2 Advantages and characteristics of a partnership

LO 2 **State the advantages and main characteristics of the partnership structure of business.**

We have already noted that a business operating with a profit motive can be structured as a sole trader, a partnership or a company, and each structure has certain advantages and disadvantages. Some of the advantages of a partnership over other forms are:

- it permits the pooling of both capital resources and the multiple skills of the individual partners
- it is easier and less costly to establish than a company
- it is not subject to as much government regulation and supervision as companies
- partners may be able to operate with more flexibility because they are not subject to the control of a board of directors or to external shareholders
- there may be certain tax advantages (see ‘Business knowledge’ on the next page).

Characteristics of a partnership

Prospective owners of a business should consider the tax and legal aspects of the various structural forms of business carefully before selecting the one that meets their organisational objectives and personal goals. The partnership form may turn out to be unattractive because of one or more of the following characteristics.

BUSINESS KNOWLEDGE

A taxing issue

The fact that a partnership is not a separate legal entity is confirmed by the approach taken by the Australian Taxation Office to the taxing of partnership income. A partnership is not liable for the payment of income tax. Instead, the profits of the partnership are taxed in the hands of the individual partners who must include their share of the partnership profits in their individual annual tax returns as assessable income. This applies regardless of the form (cash or otherwise) in which the profits are distributed — or even if they are not distributed.

Mutual agency

Normally, every partner acts as an agent for the partnership and for every other partner. This is known as **mutual agency**. Therefore, a partner can represent the other partners and bind them to a contract if he or she is acting within the apparent scope of the business. For example, a single partner can enter into contracts to buy and sell merchandise, hire employees and acquire office equipment. However, activities outside the normal course of the business, such as selling land owned by the partnership, must be authorised by all partners.

Unlimited liability

In a **general partnership**, the most common form, each partner is personally liable for the obligations of the partnership. This is termed **unlimited liability**. This means that if the creditors of the partnership are not paid fully from assets of the partnership, they can look to an individual partner’s personal assets for full recovery of any unpaid claims. In contrast, a **limited partnership** exists when one or more of the partners have limited their liability for partnership debts to the amount of assets they have contributed. However, at least one of the partners must be a general partner and hence liable to meet claims on the partnership out of personal assets. Limited partnerships are uncommon in Australia and legislation for their formation does not exist in some states.

Limited life

A partnership is dissolved for a number of reasons, including the death of a partner, the bankruptcy of the partnership or an individual partner, the admission of a new partner or retirement of an old partner from the partnership, the expiration of the period specified in a contract, or a judgement by a court that a partner is of unsound mind and incapable of performing partnership duties. In some of these cases, the partnership business activities are terminated and the partnership ceases to exist.

Transfer of partnership interest

A capital interest in a partnership is a personal asset of the individual partner that can be sold or disposed of legally. However, partnership law recognises the highly personal relationship of partners and provides that the purchaser of a partner’s interest does not have the right to participate in management unless accepted and agreed to by all the other partners. The new partner is entitled to the profit allocation acquired and, in the event of dissolution, to receive whatever assets the selling partner would have received had he or she continued in the partnership. Obtaining approval to participate in management from the other partners may make it difficult to transfer a partnership interest.

The previous discussion emphasises the importance of careful selection of the individuals forming a partnership. The mutual-agency and unlimited liability characteristics could result in extensive personal liability resulting from the acts of other partners.

Because of these characteristics, it can be more difficult for a partnership to raise capital than it is for a company. Partnerships are thus most common in comparatively small businesses, professional organisations such as a medical practice or an accounting practice, and some limited projects undertaken to accomplish a single goal such as an oil and gas exploration project or a real estate development project.

LEARNING CHECK

☐ The advantages of the partnership include the pooling of capital, less costly to establish than a company, minimal government supervision and regulation, greater flexibility for partners as owners operating the business, and potential income tax advantages.

☐ The characteristics that may make the partnership form of business unattractive include the principle of mutual agency, unlimited liability, limited life, and the difficulty of transferring partnership interests.

8.3 Partnership agreement

LO 3 **Explain the purpose of a partnership agreement and describe its typical contents.**

A partnership is a voluntary association based on the contractual agreement between legally competent people. The contract between the parties is called the **partnership agreement**. Although the partnership agreement may be verbal, it is good business practice to have the agreement in writing. The partners should clearly express their intentions and the document should cover all aspects of operating the partnership. If there are subsequent unresolved disputes, it may be necessary to resort to litigation. The court will attempt to interpret the partnership agreement and the intentions of the partners. To avoid as many conflicts as possible, the partners should seek professional legal guidance in drawing up the agreement.

The partnership agreement should be as explicit as possible and typically should include these important points:

- partnership name and identity of the partners
- nature and duration of the business
- location of the place of business
- how profits and losses are to be shared
- authority of each partner in contractual situations
- how the withdrawal of assets by a partner is to be handled
- conduct of the partnership affairs

- accounting system, accounting practices (e.g. depreciation method) and banking arrangements
- identification and valuation of initial asset contributions and specification of capital interest each respective partner is to receive
- how disputes among the partners are to be resolved
- how day-to-day operations are to be conducted
- how the various partners' interests are to be satisfied on the admission, death, retirement or expulsion of a partner, and the cessation of business.

Sometimes the partnership agreement may exclude particular rights or duties of the individual partners. In these cases, the Partnership Act (each Australian state has its own Act) sets down a number of rights and duties applicable to a partnership. Subject to any agreement to the contrary:

- partners are entitled to share equally in the capital and profits of the business, and must contribute equally towards partnership losses
- partners are liable for the debts of the partnership to the whole extent of their personal property; partners must contribute to those debts in the same proportions in which they share profits
- partners are entitled to take part in the management of the partnership business
- partners are not entitled, before the ascertainment of profits, to interest on the capital contributed by them
- partners are not entitled to any remuneration for conducting the business affairs of the partnership

- no person may be introduced as a partner or expelled from the partnership without the consent of all existing partners
- if a partner advances money to the partnership beyond the amount of his or her contributed capital, that partner is entitled to interest at the rate specified in the Act (interest rate varies from state to state in Australia)
- partnership records are to be kept at the place of business and may be inspected by any partner at any time.

LEARNING CHECK

☐ The purpose of a partnership agreement is to clearly establish the roles and responsibilities of all partners in operating the business.

☐ If there is no partnership agreement, the partnership is subject to the Partnership Act.

☐ A partnership agreement covers such things as the nature, location, and duration of the partnership; how profits and losses are shared; how the partnership is operated; the authority of partners in contractual situations; accounting practices; and dispute resolution.

8.4 Accounting for a partnership

LO 4 **Describe the special features applicable to accounting for partnerships.**

As already noted, a partnership is a separate accounting entity distinct from the partners. The transactions and events that affect the assets, liabilities and partners' equity accounts of the partnership are accounted for separately from the personal activities of the individual partners. For reporting purposes, however, a creditor may require information concerning the personal assets and debts of individual partners as well as financial reports of the business because a general partner has unlimited liability for the partnership debts.

Most partnerships are not reporting entities and hence do not have to comply with accounting standards. Within the limits imposed by the taxation laws, the accounting and reporting is determined entirely by the partners themselves and any financial reports are thus special purpose reports. This book provides the accounting treatment appropriate if the partnership is a reporting entity.

Accounting for a partnership involves essentially the same procedures and accounting principles examined in preceding chapters. A major difference, however, is accounting for partners' equity. In a partnership, ownership interests generally are not equal because the capital investments and drawings of each partner vary over time. Also, the profit or loss reported each accounting period is distributed to the partners in accordance with the partnership agreement, or Partnership Act if there is no partnership agreement. Because the capital interest of each partner can vary, a separate Capital account and a separate Drawings account are maintained for each partner.

There are two commonly used methods for accounting for equity in a partnership.

- Method 1: use of Capital accounts for each partner that not only record capital contributed and withdrawn but also include each partner’s periodic share of profits and/or losses
- Method 2: use of Capital accounts with fixed balances for each partner reflecting only the capital contributed and capital withdrawn. A partner’s share of profits and/or losses and drawings from profits are recorded in a separate Retained Earnings (or Current) account for each partner.

Method 1: Capital accounts that include profits and losses

Under this method, the Capital account of each partner is credited when assets are invested in the partnership by that partner. During each accounting period, each partner’s Drawings account is debited to record the withdrawal of assets or the payment of personal expenses by an individual partner from partnership assets. At the end of the period, the Drawings account of each partner is typically closed to his or her Capital account, and the balance in the Profit or Loss Summary account is transferred to a Profit Distribution account where profits/losses are allocated to the partners in an agreed ratio and closed to their respective Capital accounts. Except for the additional accounts and the need to divide the profit or loss, these are the same procedures as illustrated in previous chapters to account for the capital transactions of a sole trader.

Method 2: Fixed capital accounts

Under this method, the Capital account of each partner is credited when assets are invested in the partnership by that person. However, after this initial entry, very few adjustments are made to the Capital account. The only entries made in the account represent either (a) further contributions of capital by that partner or (b) withdrawals of capital (as opposed to drawings of profits).

Hence, each partner’s Drawings account is debited only for withdrawals of assets or the payment of personal expenses by the partner out of his or her share of profits or expected profits. At the end of the accounting period, the balance in the Profit or Loss Summary account, representing the partnership profit or loss for the period, is transferred to a Profit Distribution account, which is then closed by allocating profits/losses to the respective Retained Earnings accounts of the partners. The Drawings account of each partner is closed to the Retained Earnings account for each partner. These procedures closely follow the procedures in accounting for the profits/losses of companies.

In this chapter, the procedures for both methods 1 and 2 are illustrated whenever they differ. However, in practice our preference is to use method 2.

LEARNING CHECK

☐ There are two ways to account for equity in a partnership:
- method 1 uses a Capital account for each partner that records capital contributed and withdrawn ***and*** includes the partner’s drawings and share of profits and/or losses
- method 2 uses Capital accounts only for the capital contributed and withdrawn, and records profits and/or losses and drawings in Retained Earnings accounts for each partner.

8.5 Accounting for the formation of a partnership

LO 5 **Explain the accounting entries for the formation of a partnership.**

Assets contributed to a partnership, liabilities assumed by a partnership, monetary amounts to be assigned to specific assets and liabilities, and the capital interest each partner is to receive should be agreed on and specified in the partnership agreement. Once the agreement is made, entries to record the formation of a partnership can be made.

To illustrate, assume that Max Becker and Robyn Cook, operators of currently competing businesses, agree on 1 July 2015 to form the BC Partnership. The carrying amount and fair value of the assets being contributed and the liabilities assumed by the partnership are agreed on as follows:

	Carrying amount		Fair value	
	Becker	Cook	Becker	Cook
Cash at bank	$ 60 000	$ 20 000	$ 60 000	$ 20 000
Accounts receivable	—	22 000	—	20 000
Inventory	43 000	9 000	40 000	10 000
Equipment	80 000	42 000	50 000	20 000
Accumulated depreciation – equipment	(35 000)	(18 000)	—	—
Land	—	15 000	—	20 000
Building	—	110 000	—	50 000
Accumulated depreciation – building	—	(70 000)	—	—
Total assets contributed	148 000	130 000	150 000	140 000
Mortgage acquired	—	40 000	—	40 000
Assets and liabilities contributed	$148 000	$ 90 000	$150 000	$100 000

Fair value is defined in international accounting standards as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, after deducting all the costs of that transfer. The fair values of the assets given opposite meet this definition.

Assuming that the partners agree to have capital balances equal to the fair value of net assets contributed and that GST is not applicable, journal entries to record the initial investment are:

2015				
July	1	Cash at Bank	60 000	
		Inventory	40 000	
		Equipment	50 000	
		M. Becker, Capital		150 000
		(Assets contributed by Becker to the partnership)		
	1	Cash at Bank	20 000	
		Accounts Receivable	20 000	
		Inventory	10 000	
		Equipment	20 000	
		Land	20 000	
		Building	50 000	
		Mortgage Payable		40 000
		R. Cook, Capital		100 000
		(Assets and liabilities contributed by Cook to the partnership)		

Note that the non-cash assets and liabilities are recorded at their fair values. Each partner's Capital account is credited with the fair value of the assets and liabilities contributed. The amounts recorded in the accounts of the partnership may differ from the carrying amounts recorded in the accounts of the separate businesses. For example, the equipment of Becker recorded at $50 000 in the journal entry shown above had a carrying amount of $45 000 ($80 000 – $35 000). The use of fair value provides a more equitable measure of the amount invested by each partner and is the appropriate measure of the cost paid by the partnership. Entries to record additional investments after the partnership is formed are made in a similar way.

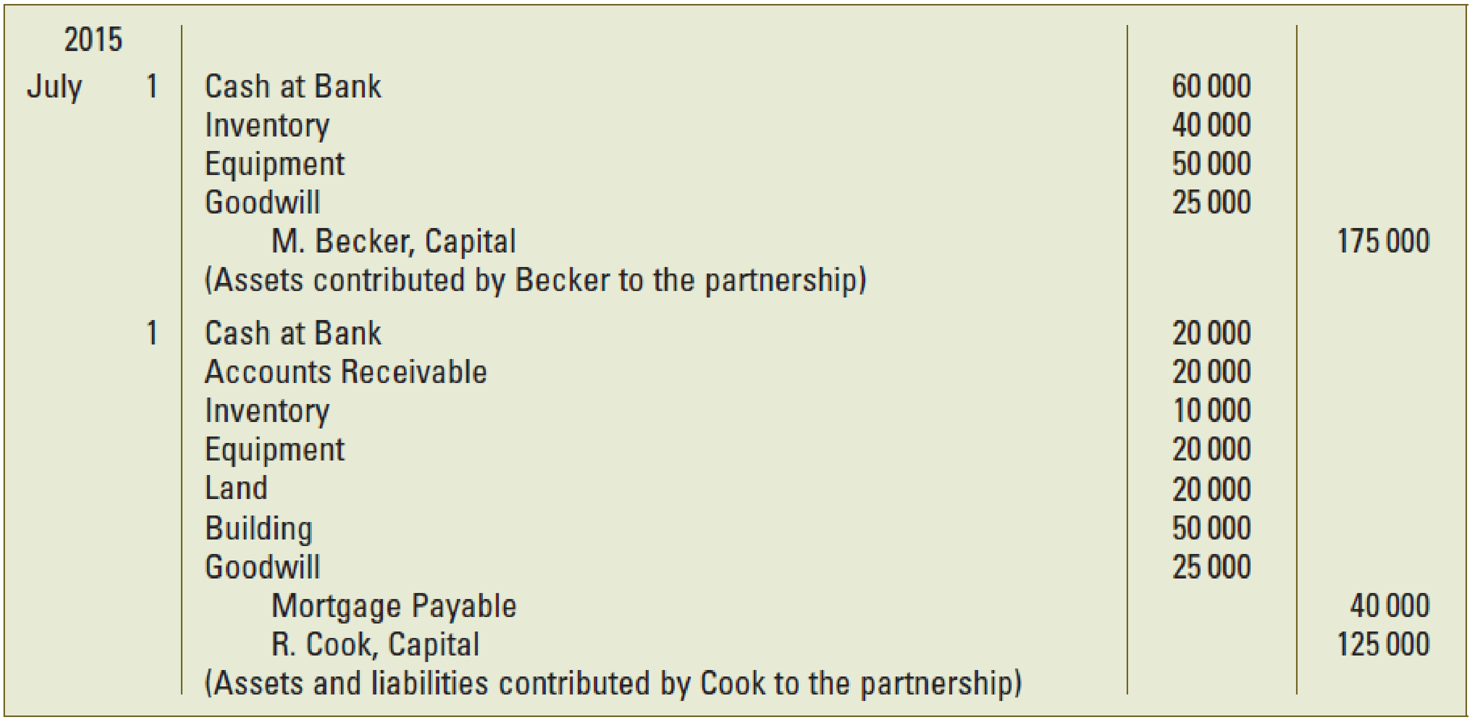
One or more of the partners may negotiate a capital interest different from the total of the identifiable net assets contributed. For example, Becker and Cook may agree that their capital investment should be $175 000 and $125 000 respectively in the new partnership in recognition of the value of unidentifiable net assets contributed by them. These unidentifiable net assets are recorded as goodwill purchased by the partnership from each of the partners.

The term **goodwill** is used by accountants and others to mean various things. It is often thought of as the favourable reputation enjoyed by an entity among its customers. From an accounting standpoint, however, goodwill has a special meaning not limited to good customer relations. Goodwill arises from many factors, including customer confidence, quality management, favourable location, manufacturing efficiency, good employee relations and market share. A successful entity continually develops these factors, but the expenditures made in doing so cannot be specifically identified with each of these factors and so cannot be recognised in accounting entries. Nor can these factors be separated from the business as a whole. The term 'goodwill' is therefore used to describe all these unidentifiable assets.

Goodwill may be generated internally or purchased in an exchange transaction. ***Only purchased goodwill should be recorded in the accounts***, according to AASB 138 ***Intangible Assets***, because purchased goodwill can be measured reliably on the basis of the amount paid for it, whereas internally generated goodwill is not usually capable of reliable measurement. This can be acquired only through the purchase of an operating business. When recorded, goodwill is classified as a non-current asset.

In the illustration overleaf, both Becker and Cook mutually agree that the capital interest for each is greater than the fair value of the identifiable assets and liabilities being contributed by them to the new partnership entity. This difference represents goodwill, and since it is being purchased from each of the partners, it is recorded in the partnership accounting records.

The entries to record the identifiable assets and liabilities at fair values, the goodwill, and capital interests of the partners are:



2015				
July	1	Cash at Bank	60 000	
		Inventory	40 000	
		Equipment	50 000	
		Goodwill	25 000	
		M. Becker, Capital		175 000
		(Assets contributed by Becker to the partnership)		
	1	Cash at Bank	20 000	
		Accounts Receivable	20 000	
		Inventory	10 000	
		Equipment	20 000	
		Land	20 000	
		Building	50 000	
		Goodwill	25 000	
		Mortgage Payable		40 000
		R. Cook, Capital		125 000
		(Assets and liabilities contributed by Cook to the partnership)		

The same entries would be made for partnership formation whether the business had decided to use method 1 or method 2 in accounting for partners' equity, since the entries relate solely to capital contributed by the partners.

LEARNING CHECK

☐ When partners contribute assets and liabilities to a partnership, each asset and liability is recorded at fair value.

☐ When an incoming partner is given credit for a capital contribution greater than the fair value of the identifiable assets and liabilities contributed, the difference is recorded as goodwill.

8.6 Allocation of partnership profits and losses

LO 6 Explain the accounting entries for the allocation of profits and losses of a partnership.

The partners may agree to any method of allocating profit or losses, and details of the allocation method should be included in the partnership agreement. In the absence of an agreement or if the partners are unable to reach an agreement, the Partnership Act provides that profits are to be divided equally, regardless of the amount invested by the partners. If a profit agreement is made but a loss agreement is not, any loss must be allocated in the same way as a profit.

In establishing an equitable way to allocate partnership profits and losses, the partners should consider the three distinct elements that make up partnership profits:

- a return for the personal services performed by the partners
- a return on the capital provided by the partners
- a return for the business risks assumed by the partners.

If profits are to be allocated equitably, the allocation method should take into consideration any difference in the amount of resources and services contributed. For example, if one partner is more actively involved in the management of the business or if his or her services are more valuable to the business, this fact should be recognised in the profit and loss agreement. Similarly, if the partners' capital investments are not equal, a statement to recognise these differences should be included in the agreement.

As noted, the objective of the profit and loss agreement is to reward each partner for resources and services contributed to the business. Some of the more common profit and loss sharing agreements are:

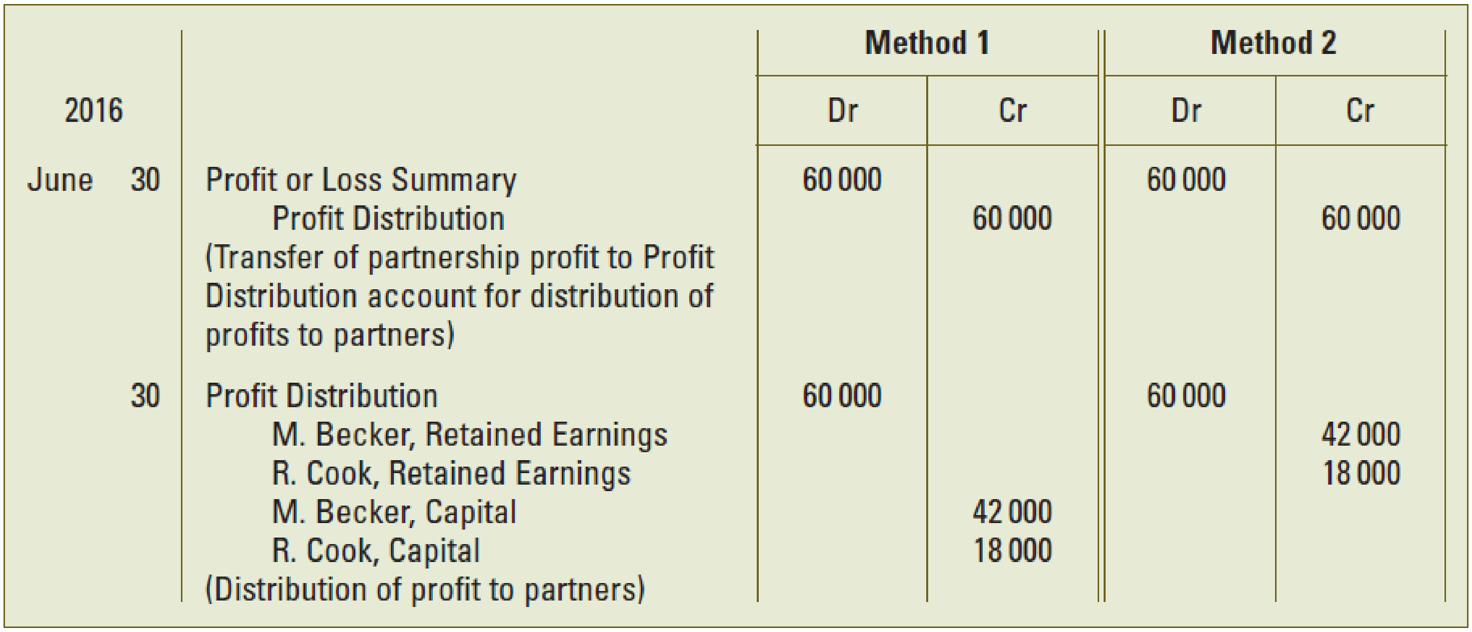
- a fixed ratio
- a ratio based on capital balances
- a fixed ratio established by the partners after allowing for interest on capital contributions and salaries to partners for services rendered to the partnership.

In the following illustrations, it is assumed that Max Becker and Robyn Cook formed the BC Partnership with capital investments of $150 000 and $100 000 respectively. At the end of the first year of operations, the Profit or Loss Summary account had a credit balance of $60 000 (final profit). Completion of the closing process depends on whether method 1 or method 2 is used.

Under method 1, the Profit or Loss Summary account is closed via a Profit Distribution account to the individual partners' Capital accounts. Under method 2, the Profit or Loss Summary account is closed via a Profit Distribution account to each partner's Retained Earnings account. The amount credited to each Capital account depends on the profit allocation method agreed to by the partners.

Fixed ratio

One of the simplest profit and loss agreements is for each partner to be allocated profits or losses based on some specified ratio. This method may be appropriate if the partners' contribution can be stated in terms of a fixed percentage. For example, assume that Becker and Cook agree to a 7:3 sharing of profits and losses respectively. The applicable closing entries to cover the profit distribution are:



		Method 1		Method 2	
2016		Dr	Cr	Dr	Cr
June 30	Profit or Loss Summary	60 000		60 000	
	Profit Distribution		60 000		60 000
	(Transfer of partnership profit to Profit Distribution account for distribution of profits to partners)				
30	Profit Distribution	60 000		60 000	
	M. Becker, Retained Earnings				42 000
	R. Cook, Retained Earnings				18 000
	M. Becker, Capital		42 000		
	R. Cook, Capital		18 000		
	(Distribution of profit to partners)				

The partners' equity accounts as shown in a balance sheet prepared on 30 June 2016 would appear as shown below.

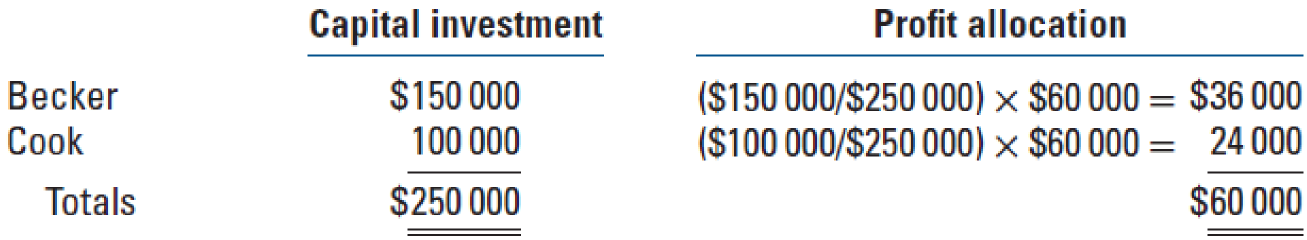
	Method 1	**Method 2**
M. Becker, Capital	$192 000	$150 000
R. Cook, Capital	118 000	100 000
M. Becker, Retained Earnings		42 000
R. Cook, Retained Earnings		18 000
Total	$310 000	$310 000

Partnership losses are allocated using the same 7:3 ratio unless a separate loss-sharing arrangement is stated in the partnership contract.

Ratio based on capital balances

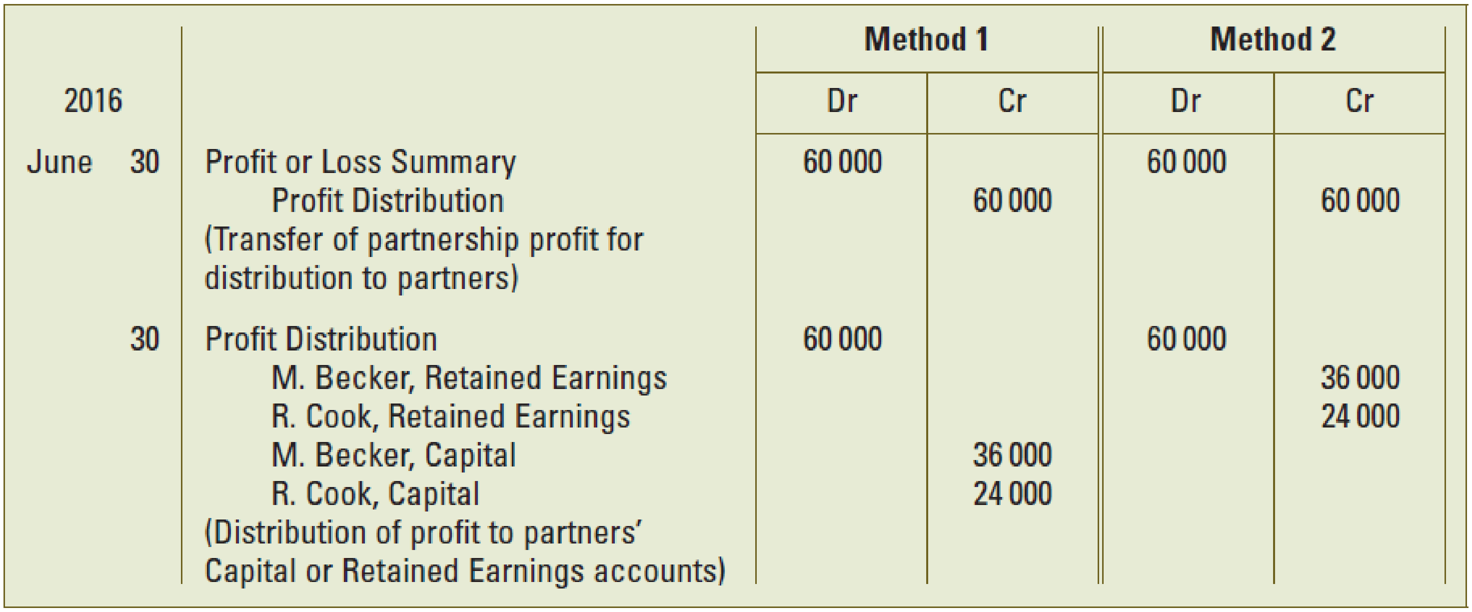
The allocation of profits based on the ratio of capital balances may result in an equitable allocation when invested capital is considered the most important factor and/or the partnership operations require little of the partners' time. Since the capital balances may change during the period whether method 1 or method 2 is in use, the agreement should specify whether the ratio is to be calculated from the original investment, the beginning-of-year balances, the end-of-year balances, or an average of the balances.

Assuming that the ratio is to be calculated from the beginning-of-year balances, the $60 000 profit is allocated as follows:



	Capital investment	Profit allocation
Becker	$150 000	($150 000/$250 000) × $60 000 = $36 000
Cook	100 000	($100 000/$250 000) × $60 000 = 24 000
Totals	$250 000	$60 000

The relevant closing entries are:



2016			Method 1 Dr	Method 1 Cr	Method 2 Dr	Method 2 Cr
June	30	Profit or Loss Summary	60 000		60 000	
		Profit Distribution		60 000		60 000
		(Transfer of partnership profit for distribution to partners)				
	30	Profit Distribution	60 000		60 000	
		M. Becker, Retained Earnings				36 000
		R. Cook, Retained Earnings				24 000
		M. Becker, Capital		36 000		
		R. Cook, Capital		24 000		
		(Distribution of profit to partners' Capital or Retained Earnings accounts)				

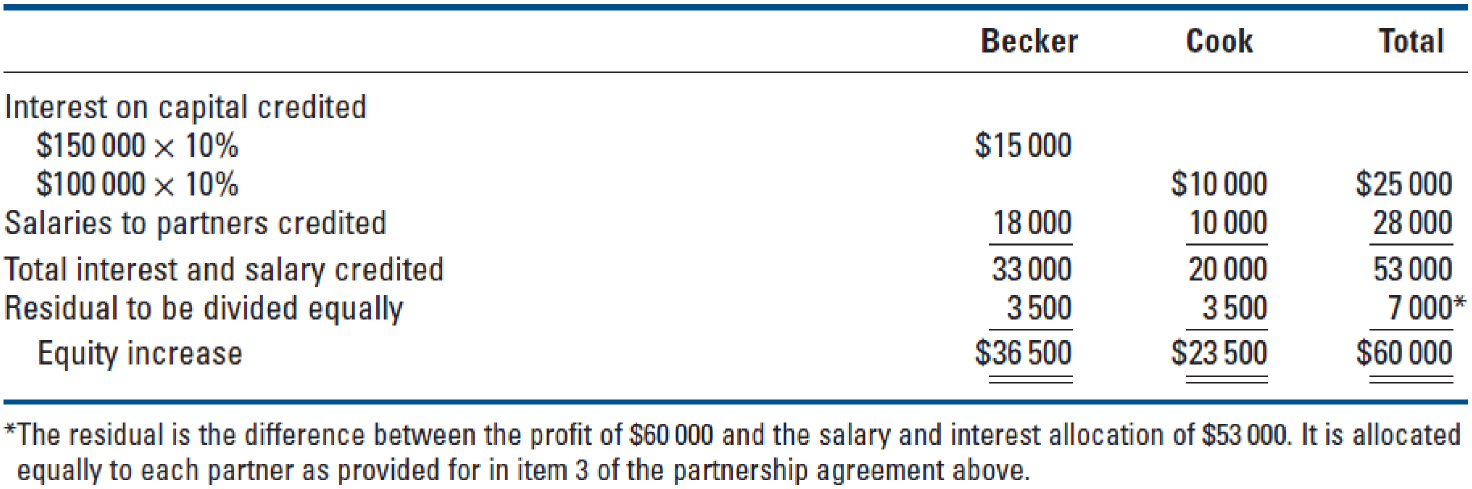
In a computerised accounting system (including integrated accounting packages), the system is set up initially to record partnership equity accounts and profit/loss sharing ratios are inserted. The allocation of profits/losses to the partners' equity accounts, therefore, is done automatically.

Fixed ratio after allowing for interest and salaries

Often, individual partners make unequal capital contributions, and the amount of time and the nature of services performed in the management function are not the same. Unless provided for in the partnership agreement, a partner is not legally entitled to receive compensation for services performed for the partnership or interest on capital investments. Thus, if profit is to be allocated equitably to compensate the partners for unequal contributions, a profit allocation method that contains a provision for interest and/or salaries must be included in the partnership agreement. To illustrate, assume the partnership agreement of BC Partnership contains this profit agreement.

1. Each partner is to be allowed interest of 10% on the initial capital investment.
2. Max Becker and Robyn Cook are to receive salary allowances per year of $18 000 and $10 000 respectively.
3. Any residual profit or loss is to be shared equally. (Equal percentages are used here on the assumption that business risk is assumed equally by each partner.)

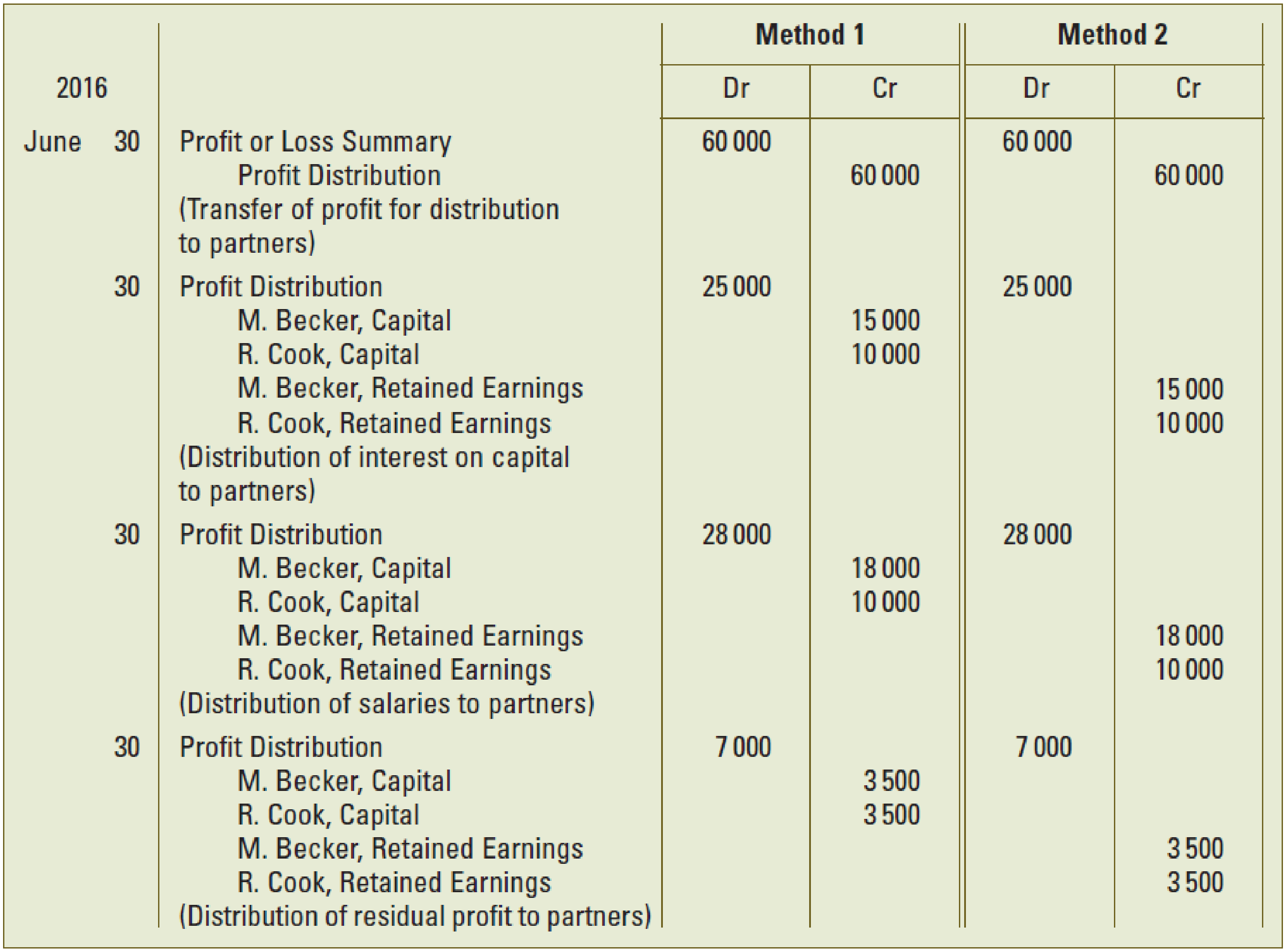
The allocation of $60 000 profit will be:



	Becker	Cook	Total
Interest on capital credited			
$150 000 × 10%	$15 000		
$100 000 × 10%		$10 000	$25 000
Salaries to partners credited	18 000	10 000	28 000
Total interest and salary credited	33 000	20 000	53 000
Residual to be divided equally	3 500	3 500	7 000*
Equity increase	$36 500	$23 500	$60 000

*The residual is the difference between the profit of $60 000 and the salary and interest allocation of $53 000. It is allocated equally to each partner as provided for in item 3 of the partnership agreement above.

The closing entries to allocate the balance in the Profit or Loss Summary account to the partners under methods 1 and 2 are:



		Method 1		Method 2	
2016		Dr	Cr	Dr	Cr
June 30	Profit or Loss Summary	60 000		60 000	
	Profit Distribution		60 000		60 000
	(Transfer of profit for distribution to partners)				
30	Profit Distribution	25 000		25 000	
	M. Becker, Capital		15 000		
	R. Cook, Capital		10 000		
	M. Becker, Retained Earnings				15 000
	R. Cook, Retained Earnings				10 000
	(Distribution of interest on capital to partners)				
30	Profit Distribution	28 000		28 000	
	M. Becker, Capital		18 000		
	R. Cook, Capital		10 000		
	M. Becker, Retained Earnings				18 000
	R. Cook, Retained Earnings				10 000
	(Distribution of salaries to partners)				
30	Profit Distribution	7 000		7 000	
	M. Becker, Capital		3 500		
	R. Cook, Capital		3 500		
	M. Becker, Retained Earnings				3 500
	R. Cook, Retained Earnings				3 500
	(Distribution of residual profit to partners)				

The T accounts to illustrate these entries are shown on the next page. Note that the salary and interest provisions are not accounted for as an increase in expenses of the partnership but are considered determinants in the allocation of profit.

A salary agreement is sometimes confused with an agreement that permits withdrawals of assets. Since the term ***salary*** is commonly understood to mean a cash payment for services rendered, it is important that the partners specify clearly their intentions as to whether the salary is part of the profit agreement or an agreement to permit drawings during the period. That is, the partners may agree that each is permitted to withdraw a certain amount of cash from the business at regular intervals for personal living expenses.

The partners may further agree that the drawings are salaries in expectation of profitable operations and are to be considered part of the profit allocation to be made at the end of the period. Alternatively, the partners may provide for a profit agreement that is independent of the drawings agreement. In the remainder of this chapter and in the end-of-chapter material, a salary agreement is considered as a distribution of profit or loss.

Profit Distribution (Methods 1 and 2)

30/6/16	Interest — Becker	15 000	30/6/16	Profit or Loss Summary	60 000
	Interest — Cook	10 000			
30/6/16	Salary — Becker	18 000			
	Salary — Cook	10 000			
30/6/16	Residual profit — Becker	3 500			
	Residual profit — Cook	3 500			
		60 000			60 000

METHOD 1

M. Becker, Capital

			1/7/15	Assets	150 000
			30/6/16	Interest	15 000
			30/6/16	Salary	18 000
30/6/16	Bal. c/d	186 500	30/6/16	Residual profit	3 500
		186 500			186 500
			1/7/16	Bal. b/d	186 500

R. Cook, Capital

			1/7/15	Assets	100 000
			30/6/16	Interest	10 000
			30/6/16	Salary	10 000
30/6/16	Bal. c/d	123 500	30/6/16	Residual profit	3 500
		123 500			123 500
			1/7/16	Bal. b/d	123 500

METHOD 2

M. Becker, Capital

			1/7/15	Assets	150 000

R. Cook, Capital

			1/7/15	Assets	100 000

M. Becker, Retained Earnings

			30/6/16	Interest	15 000
			30/6/16	Salary	18 000
30/6/16	Bal. c/d	36 500	30/6/16	Residual profit	3 500
		36 500			36 500
			1/7/16	Bal. b/d	36 500

R. Cook, Retained Earnings

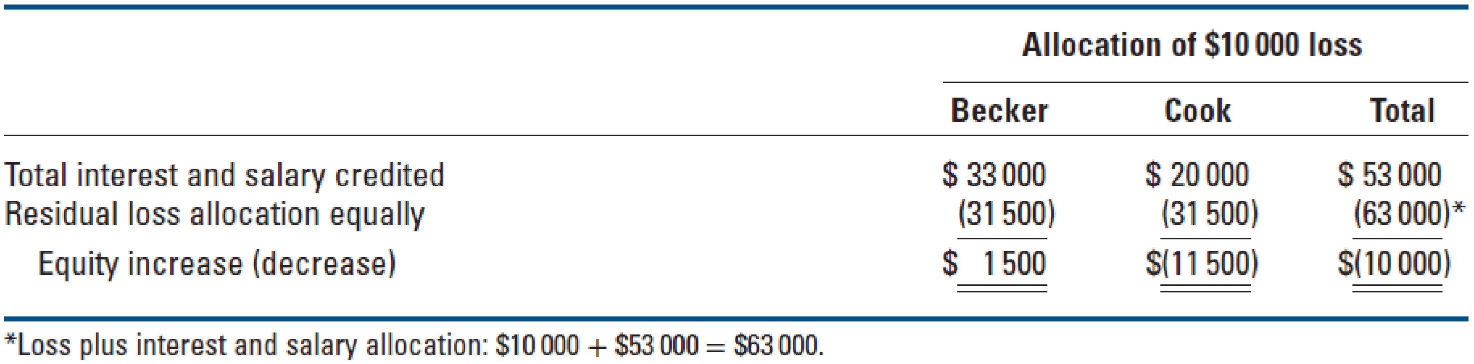
			30/6/16	Interest	10 000
			30/6/16	Salary	10 000
30/6/16	Bal. c/d	23 500	30/6/16	Residual profit	3 500
		23 500			23 500
			1/7/16	Bal. b/d	23 500

In the preceding example, the profit of $60 000 was greater than the interest and salary allocations of $53 000. The same method is used to allocate profit that is less than the interest and salary allocation or to allocate the residual loss if the partners fail to provide alternative allocations for these two possibilities in the partnership agreement. For example, assume that the profit for the period had been $41 000 rather than $60 000. The allocation to the partners would then be:

	Allocation of $41 000 profit		
	Becker	Cook	Total
Interest on capital credited	$15 000	$10 000	$ 25 000
Salaries to partners credited	18 000	10 000	28 000
Total interest and salary allocation	33 000	20 000	53 000
Residual loss allocation equally	(6 000)	(6 000)	(12 000)*
Equity increase	$27 000	$14 000	$ 41 000

*Profit minus interest and salary allocation: $41 000 – $53 000 = ($12 000).

If the Profit or Loss Summary account shows a partnership loss of $10 000, the allocation of $53 000 (interest and salary) still follows the procedures shown on the previous page, and the total loss allocation of $63 000 ($53 000 + $10 000) is allocated equally to the partners. Thus, Becker's equity is credited for $1500 and Cook's equity is debited for $11 500:



	Allocation of $10 000 loss		
	Becker	Cook	Total
Total interest and salary credited	$ 33 000	$ 20 000	$ 53 000
Residual loss allocation equally	(31 500)	(31 500)	(63 000)*
Equity increase (decrease)	$ 1 500	$(11 500)	$(10 000)

*Loss plus interest and salary allocation: $10 000 + $53 000 = $63 000.

To avoid allocations when the profit is insufficient to cover the interest and salary allocations, the partnership agreement may specify an alternative allocation arrangement.

BUSINESS KNOWLEDGE

Two-plane flyover marks Qantas partnership

Qantas says it has had a sixfold increase in bookings for flights to Europe over the past nine weeks, ahead of the launch on Sunday of its alliance with Emirates.

A Qantas A380 and another superjumbo from Emirates flew in formation above the Opera House in Sydney this morning to mark the beginning of the alliance. The pilots reportedly practised by flying the route dozens of times in sophisticated flight simulators.

The tie-up is mostly focused on routes to Europe but includes services to North Africa, the Middle East, Asia and New Zealand. The airlines still need regulatory approval for trans-Tasman flying from the New Zealand government.

Speaking shortly after the flyover, Qantas chief executive Alan Joyce said the airline had experienced a sixfold increase in bookings to Europe on the joint network in the first nine weeks of sales, compared with the same period last year.

Mr Joyce said the alliance was ‘one of the most important strategic initiatives that we will ever do’, and would help turn around the performance of Qantas’ international operations.

The deal has involved shifting Qantas’ main overseas hub for flights to Europe from Singapore to Emirates’ base in Dubai.

The two airlines will begin aligning fares over the next week as part of the tie-up.

Emirates president Tim Clark said it had been a ‘Herculean task’ bringing the two airlines together in an alliance over the last few months.

Last week, the Australian Competition and Consumer Commission gave its final approval for the alliance.

Federal Transport Minister Anthony Albanese, who is flying on the first Qantas flight to Dubai on Sunday, said the alliance was a ‘good arrangement for Australia and for the Australian travelling public’.

‘Qantas could not continue to be exactly as it has in the past [but] we need partnerships which focus on the global aviation industry,’ he said. ‘Qantas has forged a partnership with a quality airline.’

Sources: O’Sullivan, M 2013, ‘Two-plane flyover marks Qantas partnership’, ***The Sydney Morning Herald***, www.smh.com.au.

LEARNING CHECK

- ☐ A Profit Distribution account is used to distribute the profit/loss to partners. The distributable profit is determined after recording adjustments to partners’ equity such as distribution of salaries, interest on capital, and interest on drawings.
- ☐ The end-of-period general journal closing entries depend on whether method 1 or method 2 is used to account for partners’ equity.

8.7 Drawings and loans made by partners

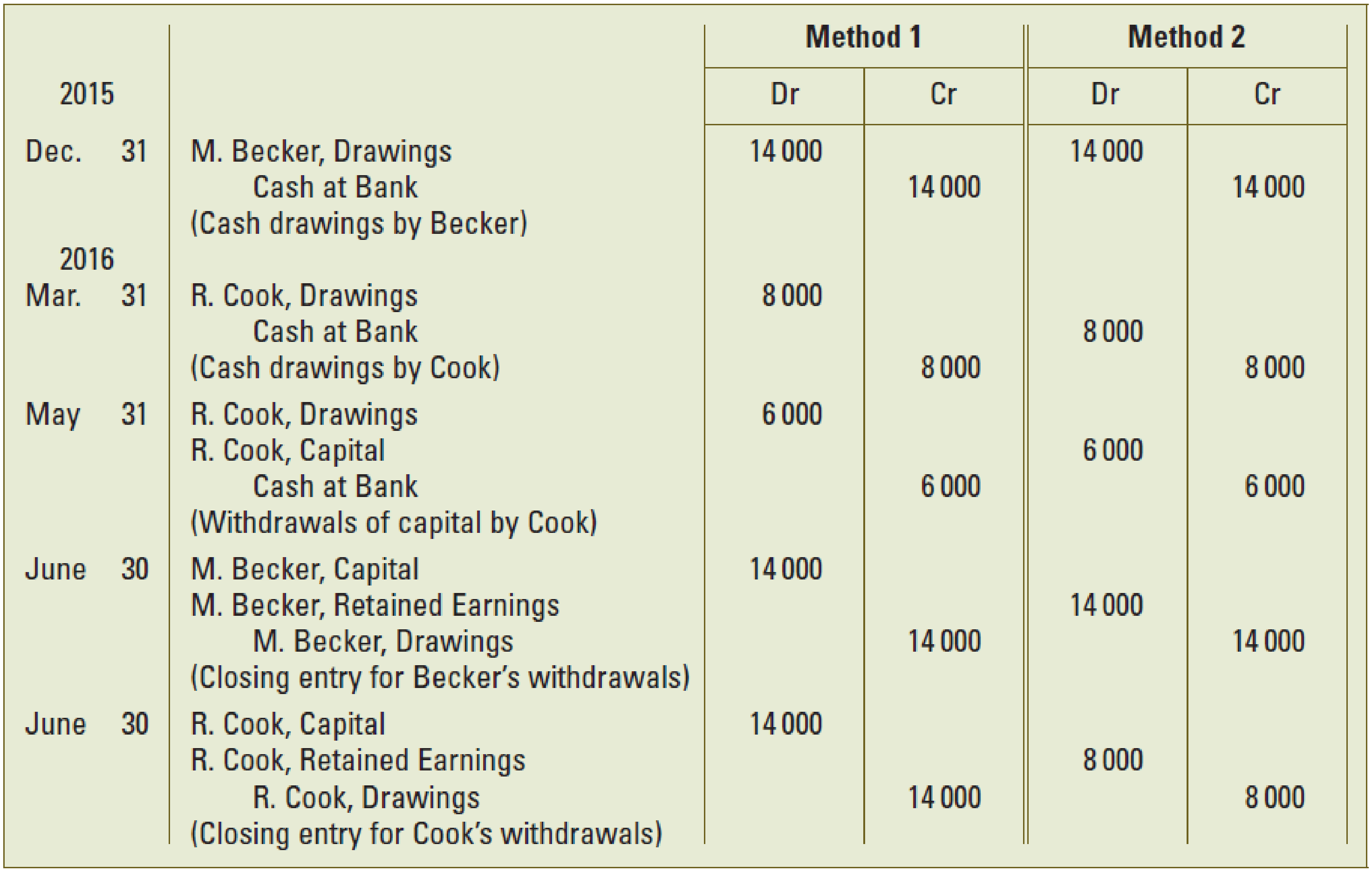
LO 7 **Explain the accounting entries for drawings and advances or loans made by partners.**

Drawings

From time to time, partners may withdraw cash or other assets from the partnership to provide for their everyday living needs, or to provide for unexpected or emergency needs in their private family circumstances. Most of these drawings are viewed as withdrawals of future profits, but in particular cases the drawings may represent a part withdrawal of the partner's capital contribution.

To illustrate, assume that during the year ended 30 June 2016, Becker withdrew $14 000 cash on 31 December 2015, and Cook withdrew $8000 cash on 31 March 2016 in the expectation that the partnership would earn a profit. Assume as well that, owing to unforeseen circumstances, Cook decided to withdraw $6000 of his capital investment in cash on 31 May 2016.

The accounting treatment for these withdrawals depends on whether method 1 or method 2 is being used. Under method 1, no distinction is made between withdrawals of capital and withdrawals of profits, hence all withdrawals are debited to the Drawings account of the partners and credited to Cash at Bank. Under method 2, the withdrawal of capital by Cook is debited directly to his Capital account, and other drawings are taken to Retained Earnings. The necessary entries and subsequent closing entries for the Drawings accounts are:



		Method 1		Method 2	
2015		Dr	Cr	Dr	Cr
Dec. 31	M. Becker, Drawings	14 000		14 000	
	Cash at Bank		14 000		14 000
	(Cash drawings by Becker)				
2016					
Mar. 31	R. Cook, Drawings	8 000			
	Cash at Bank			8 000	
	(Cash drawings by Cook)		8 000		8 000
May 31	R. Cook, Drawings	6 000			
	R. Cook, Capital			6 000	
	Cash at Bank		6 000		6 000
	(Withdrawals of capital by Cook)				
June 30	M. Becker, Capital	14 000			
	M. Becker, Retained Earnings			14 000	
	M. Becker, Drawings		14 000		14 000
	(Closing entry for Becker's withdrawals)				
June 30	R. Cook, Capital	14 000			
	R. Cook, Retained Earnings			8 000	
	R. Cook, Drawings		14 000		8 000
	(Closing entry for Cook's withdrawals)				

Interest on drawings

Partnership agreements may sometimes contain clauses that state that interest is to be charged at a certain rate per annum on drawings of profits or capital or both made by partners during the year.

Such interest agreements act as an incentive for partners to retain their profits and capital in the business and as a disincentive to partners to withdraw excessive amounts from the partnership.

To illustrate interest on drawings, assume that the partnership agreement for the BC Partnership contained a clause stating that interest at the rate of 8% p.a. is to be charged against all withdrawals by partners of both profits and capital in the current year. Interest on drawings is not normally paid by the partners into the partnership but is added to the profit distribution account and deducted from the Capital (method 1) or Retained Earnings (method 2) accounts of each partner at the end of the year. The interest charged against each partner on 30 June 2016 is:

Interest on drawings	**Becker**	**Cook**
$14 000 × 8% × 6/12	$560	
$ 8 000 × 8% × 3/12		$160
$ 6 000 × 8% × 1/12		40
Equity increase	$560	$200

The entries to record interest on drawings are:

		Method 1		Method 2	
2016		Dr	Cr	Dr	Cr
June 30	M. Becker, Capital	560			
	R. Cook, Capital	200			
	M. Becker, Retained Earnings			560	
	R. Cook, Retained Earnings			200	
	Profit Distribution		760		760
	(Charging interest on drawings)				

The additional $760 credited to the Profit Distribution account is now available for distribution to partners as part of the residual profit to be divided between the two partners. In other words, assuming partnership profit is $60 000, the residual profit, after deducting $53 000 for salaries and interest on capital, equals $7760 ($60 000 − $53 000 + $760), which means that Becker and Cook are each allocated $3880. Total profit allocations to Becker and Cook are therefore:

	Becker	Cook	Total
Interest on capital credited	$15 000	$10 000	$25 000
Salaries to partners credited	18 000	10 000	28 000
Interest on drawings debited	(560)	(200)	(760)
	32 440	19 800	52 240
Residual profit divided equally	3 880	3 880	7 760
Equity increase	$36 320	$23 680	$60 000

Loans or advances by partners

Occasionally, a partner may lend or advance money to the partnership rather than investing the money in the business as a further capital contribution. Such an advance of money is correctly treated as a current and/or non-current liability of the partnership and is accounted for using the following entry (in general journal form):

	Cash at Bank	xxx	
	Advance from Partner A		xxx

Unless there is any agreement to the contrary, the Partnership Act states that any partner making advances to the partnership is entitled to interest at the rate of 7% p.a. from the date of the advance (the rate varies from state to state in Australia). To record interest on advances, the entry in general journal form is as follows:

	Interest Expense	xxx	
	Cash at Bank/Interest Payable		xxx

Because the advance is a liability of the partnership, the interest is regarded as an expense, and is transferred to the Profit or Loss Summary account at the end of the reporting period for the purpose of determining partnership profit or loss. This treatment is consistent with the accounting definition of an expense.

LEARNING CHECK

☐ Periodic drawings of profits by partners are recorded in a separate Drawings account for each partner.
☐ Each partners' Drawings account is closed by transfer to each partners' Capital account under method 1; under method 2 it is closed to the Retained Earnings account of each partner.
☐ Advances and loans from partners are recorded as current or non-current liabilities in an account called Advance from Partner or Loan from Partner.
☐ Interest paid on partners' advances or loans is treated as an expense of the partnership.

8.8 Financial statements for a partnership

LO 8 **Describe the content of the financial statements of a partnership.**

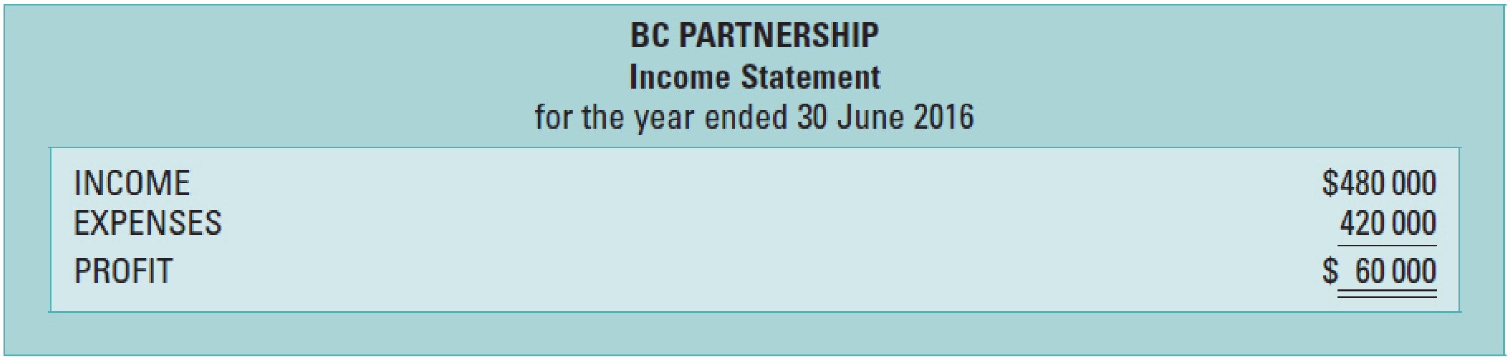
The internally prepared financial statements for a partnership are prepared in much the same manner as for other forms of business. The following items specifically related to partnership reporting should be noted.

1. If the partnership is not a reporting entity, it will prepare special purpose financial statements, and this must be clearly stated. If the partnership is a reporting entity, then it must prepare general purpose financial reports complying with accounting standards — an income statement, a statement of changes in partners' equity, a balance sheet/statement of financial position and a statement of cash flows.

2. Each partner's equity in the business is reported separately on the balance sheet or in a separate statement of changes in partners' equity.
3. Salaries authorised for each partner, interest on capital investments and interest on drawings are not reported as expenses but recognised as an allocation of profit.
4. There is no income tax expense since a partnership is not a legal entity and not subject to tax.
5. The profit or loss allocation for the period is normally disclosed in the financial statements in a separate statement of changes in partners' equity.

The income statement for a partnership should comply with the basic reporting requirements of accounting standards if the partnership qualifies as a reporting entity. A suitable partnership income statement is presented in figure 8.1.

Figure 8.1 Income statement for a partnership



BC PARTNERSHIP
Income Statement
for the year ended 30 June 2016

INCOME	$480 000
EXPENSES	420 000
PROFIT	$ 60 000

A **statement of changes in partners' equity** may appear as shown in figure 8.2 for the BC Partnership. Both method 1 and method 2 presentations are illustrated.

Figure 8.2 Statement of changes in partners' equity

BC PARTNERSHIP
Statement of Changes in Partners' Equity
for the year ended 30 June 2016

Method 1

	Becker	Cook	Total
Capital balances 1/7/15	$150 000	$100 000	$250 000
Add: Additional investment*	10 000	—	10 000
Profit allocation	36 320	23 680	60 000
	196 320	123 680	320 000
Less: Drawings	14 000	14 000	28 000
Capital balances 30/6/16	$182 320	$109 680	$292 000

Method 2

	Becker	Cook	Total
CAPITAL			
Capital balances 1/7/15	$150 000	$100 000	$250 000
Add: Additional investment*	10 000	—	10 000
Less: Withdrawals of capital	—	6 000	6 000
Capital balances 30/6/16	160 000	94 000	254 000
RETAINED EARNINGS			
Balances at 1/7/15	—	—	—
Add: Profit allocation	36 320	23 680	60 000
Less: Drawings	14 000	8 000	22 000
Balances at 30/6/16	22 320	15 680	38 000
TOTAL EQUITY	$182 320	$109 680	$292 000

*Additional capital investment is assumed for illustrative purposes.

In a balance sheet prepared for the partnership, the partners' equity accounts will appear as in figure 8.3, using method 2. Alternatively, partners' equity may be shown as a single figure of $292 000 and a separate statement of changes in partners' equity disclosing detail as in figure 8.2 can be presented.

Figure 8.3 Partnership balance sheet (extract) (method 2 only)

BC PARTNERSHIP
Balance Sheet (extract)
as at 30 June 2016

EQUITY	
M. Becker, Capital	$160 000
R. Cook, Capital	94 000
M. Becker, Retained Earnings	22 320
R. Cook, Retained Earnings	15 680
TOTAL EQUITY	$292 000

Further discussion of financial statements suitable for external reporting purposes is provided in a later chapter.

LEARNING CHECK

- ☐ If a partnership is a reporting entity, it must prepare financial statements in accordance with relevant accounting standards.
- ☐ A statement of changes in partners' equity is prepared showing details of all changes in each partner's equity.
- ☐ In a balance sheet, the equity of each partner is shown as the final balance of the Capital account under method 1; under method 2, the balances of both the Capital account and Retained Earnings account are disclosed.

KEY TERMS

Fair value	p. 348
General partnership	p. 345
Goodwill	p. 349
Limited partnership	p. 345
Mutual agency	p. 345
Partnership	p. 344
Partnership agreement	p. 346
Statement of changes in partners' equity	p. 358
Unlimited liability	p. 345

DISCUSSION QUESTIONS

1. 'The big disadvantage of a sole trader business is that the personal liability of the owner is unlimited — the owner could lose everything. I think I will take on a partner and convert my business to a partnership. That way I will certainly reduce the chances of losing my personal assets if the business fails.' Discuss.
2. 'There is really no need for a partnership agreement since all issues likely to arise among partners are adequately covered in the appropriate Partnership Act.' Discuss.
3. Which is likely to last longer and why: a partnership or a company?
4. Liam sold his partnership interest to Jason even though his other partners were unaware that Liam intended to do so. Does Jason have the right to be a partner? Does Jason have the right to take over Liam's position as manager of the business? Will Jason be entitled to share in the partnership profits and, if so, how much?
5. 'The accounting treatment of a partner's drawings differs when separate Retained Earnings accounts are kept for each partner as opposed to not having Retained Earnings accounts. Choice of method is immaterial.' Discuss.
6. A student of accounting was heard to remark: 'You really do not need a Profit Distribution account when accounting for profit distribution in a partnership. Everything can be done through the Profit or Loss Summary account.' Discuss.
7. 'Partners' advances and capital both represent money contributed to the partnership by the partners. Therefore the accounting treatment for interest paid on advances and capital should be the same.' Discuss.
8. Hannah and Jeremy set up a partnership to run a café. At the time of establishing the business, Hannah was in a better financial position than Jeremy and so contributed 60% of the capital required. Jeremy believes that he contributes as much effort to running the café as Hannah and therefore assumes that any profit made will be distributed evenly between Hannah and him. Is Jeremy correct, and what factors might determine how much profit each of the partners will receive?

9. Eduardo and Evanthia run a craft shop as a partnership. During the year Eduardo incurred an unusual amount of personal expenses in relation to his family and felt that his share of the partnership profit for the year would not cover these costs. Eduardo approached Evanthia to see whether he could get any extra cash out of the business just for the current year to cover the shortfall in his personal finances. What options are there for Eduardo to receive extra cash and what are some of the future implications of this?
10. Ethan and Amy, who have been friends for a long time, decide to go into partnership selling a range of pet accessories. They seek advice from an accountant regarding the best system, the generally accepted

accounting principles to be used in the accounting records, and the format and contents of the financial statements. The accountant replies that since the partnership will be a non-reporting entity, they can account any way they like, and include whatever they like in the reports to suit their own requirements. The partners point out that they have other business interests and would like to have some comparability in accounting and statements. As the accountant, how would you advise the partners?

EXERCISES

Exercise 8.1 PARTNERSHIP FORMATION LO 5

Thomas and James, who were operating separate competing businesses, decided on 1 July 2015 to form a partnership by contributing cash, assets and liabilities of their respective businesses. At that date the fair values of the assets and liabilities were as set out below:

	Thomas	**James**
Cash at bank	$90 000	$100 000
Accounts receivable	12 000	7 500
Inventory	45 000	40 000
Plant and equipment	90 000	70 000
Accounts payable	12 500	8 000

Required

A. Assuming that Thomas and James agree that their capitals should be equal to the fair value of the net assets contributed, prepare general journal entries to record the formation of the partnership.

B. If Thomas and James agree that their respective capital should be $230 000 each, show the general journal entries to establish the partnership.

Exercise 8.2 PARTNERSHIP FORMATION LO 5

Tammie Pike and Gail Smith agree to combine their businesses and form a partnership. The fair value and the carrying amount of the assets contributed by each partner and the liabilities assumed by the partnership are shown below:

	Tammie Pike		Gail Smith	
	Carrying amount	Fair value	Carrying amount	Fair value
Cash at bank	$ 6 200	$ 6 200	$ 5 800	$ 5 800
Accounts receivable	12 800	12 800	11 400	11 400
Inventory	22 000	21 500	18 500	18 300
Equipment	72 000	48 000	75 000	32 000
Accumulated depreciation – equipment	(18 600)	—	(26 500)	—
Accounts payable	13 400	13 400	12 800	12 800

Required

Prepare separate general journal entries to record the initial investment of each partner, assuming assets are recorded by the business to reflect their purchase price, and the arrangement is GST-free.

Exercise 8.3 PARTNERSHIP FORMATION LO 5

Refer to the data presented in exercise 8.2. Assume further that Pike and Smith agree that their opening capital balances in the new partnership should be the same and set the amount at $90 000.

Required

Prepare separate general journal entries to record the initial investment of each partner, assuming assets are recorded by the business to reflect their purchase price, and the arrangement is GST-free.

Exercise 8.4 PARTNERSHIP PROFIT DISTRIBUTION — FIXED RATIO LO 6, 8

Godfrey and Taylor formed a partnership on 1 July 2015 with initial capital balances of $90 000 and $60 000 respectively. For the year ended 30 June 2016, the Profit or Loss Summary account disclosed a final credit balance of $96 000.

Required

A. Prepare the closing entry to transfer the profit disclosed in the Profit or Loss Summary account to the Profit Distribution account under method 1 and method 2.
B. Prepare the closing general journal entry to distribute the profit to Godfrey and Taylor assuming they have agreed to share profits in proportion to each partner's initial capital balance under both method 1 and method 2.
C. Show how the partners' equity accounts would appear in the balance sheet of the partnership at 30 June 2016.

Exercise 8.5 PARTNERSHIP PROFIT DISTRIBUTION — CAPITAL BALANCES LO 6, 8

Penny and Lane formed a partnership on 1 July 2015 with initial capital balances of $200 000 and $220 000 respectively. For the year ended 30 June 2016, the Profit or Loss Summary account disclosed a final credit balance of $180 000.

Required

A. Prepare the closing entry to transfer the profit disclosed in the Profit or Loss Summary account to the Profit Distribution account under method 1 and method 2.
B. Prepare the closing general journal entry to distribute the profit to Penny and Lane, assuming they have agreed to share profits in the ratio of 3:2.
C. Show how the partners' equity accounts will appear in the balance sheet of the partnership at 30 June 2016.

Exercise 8.6 ALLOCATION OF PROFIT LO 6, 7

Warren and Winston's partnership had a final profit for the year of $40 500. When the partnership was formed at the beginning of the year Warren invested $150 000 and Winston invested $100 000.

Required

A. Prepare the journal entries to record the allocation of profit under each of the following assumptions, using method 1 procedures:
   1. Warren and Winston agree to a 55:45 sharing of profits.
   2. The partners agree to share profits in the ratio of their original capital investments.
   3. The partners agree to recognise $12 000 per year salary allowance to Warren and a $4500 per year salary allowance to Winston. Each partner is entitled to 6% interest on his original investment, and any remaining profit is to be shared equally.
B. Repeat requirement A.3 above assuming the partnership has a profit of $27 000 for the first year.

Exercise 8.7 ALLOCATION OF PROFIT LO 6, 7

Thomson and Turner formed a partnership by investing $110 000 and $90 000 respectively. The partnership had a final profit of $72 000 in the first year.

Required

A. Prepare the journal entries to record the allocation of profit under each of the following assumptions, using method 1 procedures:
   1. Thomson and Turner agree to a 60:40 sharing of profits.
   2. The partners agree to share profits in the ratio of their original capital investments.
   3. The partners agree to recognise a $10 000 per year salary allowance to Thomson and an $8000 per year salary allowance to Turner. Each partner is entitled to 8% interest on her original investment, and any remaining profit is to be shared equally.
B. Repeat requirement A.3 above assuming the partnership has a profit of $30 000 for the first year.

Exercise 8.8 INTEREST ON CAPITAL AND DRAWINGS LO 7

Barrett and Pickering run a market stall together as a partnership. On 30 November 2016, Barrett withdrew $12 000 cash. Pickering withdrew $8000 on 20 December 2016. On 31 March 2017 Pickering withdrew $15 000 of her capital investment in cash to meet unexpected medical expenses for her son.

Required

Prepare the journal entries for the above transactions for the year ended 30 June 2017 using both method 1 and method 2.

Exercise 8.9 INTERESTON CAPITAL AND DRAWINGS **LO 7**

Meagan and Jenny are in partnership, sharing profits equally. Provision exists in the partnership agreement for charging interest on capital at the rate of 8% p.a. and interest on drawings at 10% p.a. Capital and Drawings account balances are:

Meagan, Capital	$ 96 000
Jenny, Capital	108 000
Meagan, Drawings	25 000
Jenny, Drawings	32 000

Profit before allowing for interest was $150 000. All drawings were made in expectation of profits.

Required

Prepare journal entries to account for interest on capital and on drawings, and any necessary closing entries using:

1. method 1 — variable capital balances
2. method 2 — fixed capital balances.

Exercise 8.10 ALLOCATION OF PROFIT **LO 6**

Terry and Craig share profits in the proportion of one-third and two-thirds respectively. On 1 July 2015, the equity accounts stood as follows:

	Terry	**Craig**
Capital	$80 000	$120 000
Retained earnings	25 000	32 000

Partners were entitled to 8% interest on capital, and Terry, as manager, was entitled to a salary of $30 000 p.a. During the year, Terry withdrew $12 000 in cash and Craig withdrew $17 000. The profits for the year ended 30 June 2016 were $68 000 before providing for interest on capital balances and for Terry's salary.

Required

Prepare the Profit Distribution account and partners' Retained Earnings accounts for the year ended 30 June 2016.

Exercise 8.11 ALLOCATION OF PROFIT **LO 6**

Martin and Brett share profits on a 60:40 basis respectively. On 1 July 2016 the equity accounts were as follows:

	Martin	**Brett**
Capital	$540 000	$460 000
Retained earnings	160 000	130 000

The partners were entitled to 12% interest on capital. Brett ran the business and received a salary of $80 000. During the year Martin withdrew $48 000 in cash and Brett withdrew $12 000. The profits for the year ended 30 June 2017 were $500 000 before providing for interest on capital balances and Brett's salary.

Required

Prepare the Profit Distribution account and the partners' Retained Earnings accounts for the year ended 30 June 2017.

Exercise 8.12 ALLOCATION OF PROFIT — AVERAGE CAPITAL BALANCES **LO 6**

Greg, Graham and Gordon are partners. The partnership agreement provides that partners will receive interest of 8% of their average capital balance and a salary allowance as follows:

Greg	$50 000
Graham	40 000
Gordon	40 000

Greg, who manages the business, will receive a bonus of 25% of the profit in excess of $90 000 after partners' interest and salary allowances. Residual profits will be divided:

Greg $^{1}/_{2}$ Graham $^{1}/_{3}$ Gordon $^{1}/_{6}$

During the current year their average capital balances were as follows:

Greg	$250 000
Graham	150 000
Gordon	90 000

Required

Prepare a schedule showing how profit will be divided among the three partners if the profit for the year before the above adjustments is $320 000.

Exercise 8.13 FORMATION AND ALLOCATION OF PROFITS OF PARTNERSHIP **LO 5, 6**

Wendy, William and Wanda are independent website developers who had been trading in active opposition to one another for some years. They decide to form a partnership, WWW Web Developers, as from 1 January 2015. The agreement set out the following basic arrangements:

Wendy to contribute $8000 in cash, computers valued at $10 000, and debtors of $12 000.
William to contribute a lease of premises used by him, such a lease to be regarded as having a capital value of $12 500, computers of $10 000 and $6000 in cash.
Wanda to contribute computers valued at $13 750 and to act as managing partner at a salary of $20 000 per year.
Interest for the period is to be allowed partners at the rate of 8% p.a. on beginning capital but is not charged on drawings.
Profits or losses to be shared in the same proportions as capital contributed.

Required

A. Prepare the journal entries necessary to open the records of the partnership. (Ignore GST.)
B. Assuming in the first year that the partnership makes a profit of $65 000, show how this profit would be allocated to partners.

Exercise 8.14 STATEMENT OF CHANGES IN PARTNERS' EQUITY **LO 8**

Paul and Justin began their partnership on 1 July 2015 by contributing $320 000 and $280 000 respectively. During the first year of business, Justin contributed another $40 000 and Paul withdrew $20 000 of his capital investment. The profit for the year ended 30 June 2016 of $160 000 was divided evenly between the partners. During the year Paul withdrew $25 000 from profits and Justin withdrew $20 000 of his share of the profits.

Required

Prepare a statement of changes in partners' equity for the year ended 30 June 2016 using both method 1 and method 2.

Exercise 8.15 STATEMENT OF CHANGES IN PARTNERS' EQUITY **LO 8**

Bonnie and Clyde have a partnership to run their human resource management services firm. Account balances related to their equity for the year ended 30 June 2016 are as follows:

Capital Balance 1 July 2015, Bonnie	$120 000
Capital Balance 1 July 2015, Clyde	100 000
Additional investment, Bonnie	32 000
Withdrawal of capital, Clyde	15 000
Drawings, Bonnie	18 000
Drawings, Clyde	20 000

Profit of $124 000 for the year was distributed evenly between the partners.

Required

Prepare a statement of changes in partners' equity using both method 1 and method 2.

PROBLEMS

Basic
Moderate
Challenging

Problem 8.1 PARTNERSHIP FORMATION

LO 5, 8

John Landis and Raymond Oliver formed a partnership on 1 July 2015, agreeing to share profits and losses in the ratio of 2:1. John contributed $30 000 in cash and land with a fair value of $180 000. Assets contributed to and liabilities assumed by the partnership from Raymond's business at both carrying amount and fair value are shown below:

	Carrying amount	Fair value
Cash at bank	$22 500	$22 500
Accounts receivable	12 800	12 800
Inventory	24 600	23 800
Office equipment	76 000	62 000
Accounts payable	11 500	11 500
Bank loan	18 000	18 000

During the first year, John contributed an additional $12 000 in cash. The partnership's profit was $56 000. John withdrew $8000 and Raymond withdrew $16 000 in expectation of profits (ignore GST).

Required

A. Prepare the journal entries to record each partner's initial investment.
B. Prepare the partnership's balance sheet as at 1 July 2015.
C. Prepare a statement of changes in partners' equity for the year ended 30 June 2016, using method 2 for recording partners' equity accounts.

Problem 8.2 PARTNERSHIP FORMATION

LO 5, 8

Anthony Chu and Adrian Tan formed a partnership on 1 January 2015, agreeing to share profits and losses equally. Anthony contributed $80 000 in cash and plant and equipment with a fair value of $120 000. Assets contributed to and liabilities assumed by the partnership from Adrian's business at both carrying amount and fair value are shown below.

	Carrying amount	Fair value
Cash at bank	$ 12 600	$ 12 600
Accounts receivable	22 500	22 500
Inventory	32 500	30 400
Building	220 000	480 000
Accounts payable	18 500	18 500
Bank loan	180 000	180 000

During the first year, Anthony contributed an additional $24 000 in cash. The partnership's profit was $96 000. Anthony withdrew $16 000 and Adrian withdrew $18 000 in expectation of profits (ignore GST).

Required

A. Prepare the journal entries to record each partner's initial investment.
B. Prepare the partnership's balance sheet as at 1 January 2015.
C. Prepare a statement of changes in partners' equity for the year ended 31 December 2015, using method 1 for recording partners' equity accounts.

Problem 8.3 ALLOCATION OF PROFIT OR LOSS

LO 6

Philip and Lance have decided to form a partnership by investing $100 000 and $80 000 respectively. The following plans for dividing profits and losses are under consideration:

(a) sharing profits equally
(b) a $20 000 salary to Philip, a $30 000 salary to Lance, and the remainder in the ratio of 6:4
(c) a $25 000 salary to Lance, 8% interest on their original investments, and the remainder equally
(d) in the ratio of their original investments.

Required

A. Determine the division of the profit or loss assuming a profit of $120 000.
B. Determine the division of the profit or loss assuming a profit of $60 000.
C. Determine the division of the profit or loss assuming a loss of $6000.

Problem 8.4 ALLOCATION OF PROFIT or LOSS LO 6

A partnership is formed by Robert investing $150 000 and Linda investing $100 000. The partners are considering the following plans for dividing profits and losses:

(a) according to the ratio of their original investment
(b) paying Robert a salary of $60 000 and Linda a salary of $50 000 and the balance on the basis of their original investment
(c) a $60 000 salary to Robert, 12% interest on their original investments, and the balance equally
(d) share the profits equally.

Required

A. Determine the division of the profit or loss assuming a profit of $200 000.
B. Determine the division of the profit or loss assuming a profit of $150 000.
C. Determine the division of the profit or loss assuming a loss of $10 000.

Problem 8.5 ALLOCATION OF PROFITS LO 6

The partnership deed of Dustin, Daniel and Dylan, partners trading as Triple D Traders, includes the following provisions.

1. Salaries are to be allowed: Dustin, $35 000; Daniel, $30 000; Dylan, $25 000.
2. Dylan is to receive a bonus of 20% of the profits after allowing for partners' salaries and interest.
3. Interest is to be allowed on advances by partners at 6% p.a.
4. Interest on drawings to be charged at 8% p.a.
5. Residual profits are to be divided: Dustin, 3/8; Daniel, 3/8; Dylan, 1/4.

Account balances at 30 June 2015 before any adjustment in respect of provisions (1) to (5) include the following:

Capital:	
Dustin	$160 000
Daniel	80 000
Dylan	200 000
Retained earnings:	
Dustin	32 000
Daniel	31 200
Dylan	50 600
Advances:	
Daniel (on 1 July 2014)	72 000
Dylan (on 1 July 2014)	40 000
Drawings:	
Dustin (on 1 March 2015)	12 600
Daniel (on 1 January 2015)	7 900
Dylan (on 1 October 2014)	5 900
Profit or Loss Summary	
(profit for the year ended 30 June 2015)	203 000

Required

Prepare a schedule showing the distribution of final profit to each partner.

Problem 8.6 FORMATION AND ALLOCATION OF PROFITS — METHOD 1 LO 5, 7, 8

On 1 October 2015, Dallas Lucas and Suzanne Foreman formed a partnership. Some business assets and the liabilities of Lucas were assumed by the partnership, and these are listed below at both carrying amounts and fair value.

	Carrying amount	**Fair value**
Cash at bank	$ 28 000	$ 28 000

Marketable securities	24 000	26 800
Accounts receivable	47 000	47 000
Inventory	122 600	125 400
Equipment	38 500	230 000
Accounts payable	36 000	36 000

Foreman contributed a building worth $820 000, land worth $350 000, and a $456 000 mortgage was taken over by the partnership. They agreed to share profits and losses in the ratio of 1:2. During the first year of the partnership, Lucas invested $60 000 in the business and withdrew $45 000. Foreman invested $115 200 and withdrew $17 200. The partnership had a profit of $88 460. Retained Earnings accounts are not used.

Required

A. Prepare the general journal entries to record the initial investments of both partners (ignore GST).
B. Prepare a balance sheet as at 1 October 2015.
C. Prepare a statement of changes in partners' equity for the year ended 30 September 2016.

Problem 8.7 FORMATION AND ALLOCATION OF PROFITS — METHOD 1 **LO 5, 8**

Francine Steele and Shaun Dunn formed a partnership on 1 July 2015. Some of Steele's business assets and liabilities were assumed by the partnership, and these are listed below at both carrying amounts and fair value.

	Carrying amount	Fair value
Cash at bank	$ 62 000	$ 62 000
Accounts receivable	34 000	34 000
Inventory	98 600	96 000
Equipment	320 000	360 000
Accounts payable	24 000	24 000
Loan	80 000	80 000

Dunn contributed a commercial property to the partnership that had a fair value of $670 000 which was financed by a mortgage of $220 000. They agreed to share profits and losses evenly. During the first year of the partnership, Steele invested $80 000 in the business and withdrew $20 000. Dunn invested $82 000 and withdrew $24 000. The partnership had a profit of $132 800. Retained Earnings accounts are not used.

Required

A. Prepare the general journal entries to record the initial investments of both partners (assume no GST).
B. Prepare a balance sheet as at 1 July 2015.
C. Prepare a statement of changes in partners' equity for the year ended 30 June 2016.

Problem 8.8 FORMATION AND ALLOCATION OF PROFIT — METHOD 2 **LO 5, 6, 8**

Richards, David and Andrews decided to enter into a partnership agreement as from 1 July 2015, some of the provisions of which were as follows.

1. Richards to contribute $20 000 cash, inventory the fair value of which was $42 500, plant and machinery $78 600, accounts receivable totalling $12 700.
2. David to contribute $37 500 cash and act as manager for the business at an annual salary of $32 000 to be allocated to him at the end of each year.
3. Andrews to contribute $16 500 cash, land $120 000, premises $240 000, furniture and fittings $40 500, motor vehicles $31 500. A mortgage of $180 000 secured over the premises was outstanding and the partnership agreed to assume the mortgage.
4. Profits or losses of the firm to be divided between or borne by Richards, David and Andrews in the proportion of 2:1:3 respectively.
5. Interest to be allowed at 8% p.a. on the capital contribution by the partners. Interest at 10% p.a. to be charged on partners' drawings.

During the year ended 30 June 2016, the income of the partnership totalled $120 800, and the expenses (excluding interest on capital and drawings and David's salary) amounted to $43 000.

Richards withdrew $12 000 on 1 October 2015 and $8000 on 1 January 2016; David withdrew $4000 only on 1 April 2016; Andrews withdrew $10 000 on 30 June 2016.

Required

A. Prepare general journal entries necessary to open the records of the partnership.
B. Prepare the balance sheet of the partnership immediately after formation.

C. Prepare a Profit Distribution account for the year ended 30 June 2016 using method 2.

Problem 8.9 ALLOCATION OF PROFITS — METHOD 2 LO 6, 7, 8

Selected accounts from the trial balance as at 30 June 2016 of the partnership of Amber, Ruby and Gemma are as follows:

	Debit	**Credit**
Amber, Capital		$102 500
Amber, Retained earnings		$ 26 000
Ruby, Capital		112 800
Ruby, Retained earnings		32 000
Gemma, Capital		108 000
Gemma, Retained earnings		24 500
Loan – ABC Bank Ltd		85 000
Gemma, Salary	32 000	
Advance, Amber (repayable in November 2017)		18 000
Profit or loss summary (after usual adjusting and closing entries for profit determination)		148 000

End-of-period adjustments for the financial year ended 30 June 2016 have yet to be made as follows.

1. The partnership accountant has duly paid cash for Gemma’s agreed salary as part-time manager ($32 000 p.a.) but was uncertain how to charge it.
2. Interest accrued to ABC Bank Ltd — $1800.
3. Partners have agreed to the following arrangements:
    (a) 6% p.a. interest on fixed capitals.
    (b) 10% interest on total drawings for the year, which were:

Amber	$32 000
Ruby	28 000
Gemma	5 000

    (c) 8% p.a. interest on advance from Amber.
    (d) Profits/losses to be shared 2:2:1 by Amber, Ruby and Gemma respectively.

Required

A. Complete the Profit or Loss Summary account for the year ended 30 June 2016.
B. Prepare the Profit Distribution account.
C. Complete each partner’s Retained Earnings account after all adjustments.

Problem 8.10 FORMATION AND ALLOCATION OF PROFIT — METHOD 2 LO 5, 8

On 1 July 2015, McGregor and Roberts decided to amalgamate their businesses and to share profits equally. Financial information at that date was:

	McGregor	**Roberts**
Capital	$101 380	$119 800
Accounts payable	41 470	55 300
Bank overdraft	18 430	
	$161 280	$175 100
Cash at bank		$59 900
Accounts receivable	$61 280	46 080
Inventory	46 080	69 120
Furniture and fittings	26 260	
Equipment	27 660	
	$161 280	$175 100

At 1 July 2015, McGregor’s accounts receivable and inventory had fair values of $61 280 and $48 380 respectively, and Roberts’s accounts receivable and inventory had fair values respectively of $46 080 and $73

720. McGregor's equipment was written down by 10%.

McGregor and Roberts negotiated to have equal capital balances of $150 000.

After 1 year, the following were the only changes to the assets and liabilities, as compared with the position at the time of forming the partnership:

Net cash at bank had increased by	$23 040
Accounts receivable had decreased by	10 120
Inventory had increased by	36 860
Accounts payable had decreased by	27 650

Depreciation still has to be charged on the furniture and fittings and on equipment at the rates of 10% and 15% respectively for the year. Cash drawings for the year were: McGregor, $28 800; Roberts, $36 240.

Required

A. Prepare journal entries to record the formation of the partnership.
B. Prepare a statement of changes in partners' equity as at 30 June 2016 showing each partner's share of profit/loss for the year.
C. Prepare the balance sheet of the partnership as at 30 June 2016.

Problem 8.11 ALLOCATION OF PROFITS — METHOD 2 LO 5, 8

Gregory and Simpson share profits in a proportion of 60:40. Gregory is entitled to a salary allowance of $60 000 p.a., and Simpson is entitled to $50 000 p.a. Capitals are fixed at Gregory $72 000 and Simpson $48 000. Interest is to be calculated on partners' capital, advances, and drawings in excess of salary at 8% p.a. The trial balance after the determination of profit for the 6-month period is shown below.

Gregory had withdrawn $12 000 cash on 1 April; Simpson's cash drawings included $24 000 on 1 March and $12 000 on 1 May.

Required

A. Prepare the Profit Distribution account for 6 months ended 30 June 2016.
B. Prepare the Retained Earnings accounts for each partner at 30 June 2016.
C. Prepare a balance sheet as at 30 June 2016.

GREGORY AND SIMPSON
Trial Balance
as at 30 June 2016

	Debit	Credit
Gregory, Capital		$ 72 000
Simpson, Capital		48 000
Gregory, Advance (Balance at 1/1/2016)		24 000
Gregory, Retained earnings	$22 000	
Simpson, Retained earnings	16 000	
Gregory, Salary	30 000	
Simpson, Salary	25 000	
Cash at bank	3 200	
Accounts receivable	22 000	
Plant and equipment	106 000	
Accumulated depreciation – plant and equipment		47 800
Inventory	32 000	
Accounts payable		18 400
Profit or loss summary		46 000
	$256 200	$256 200

Problem 8.12 ALLOCATION OF PROFIT — METHOD 1 LO 5, 8

At the end of the financial year ended 30 June 2015, the trial balance of Veronica, Valda and Victoria is as shown below.

VERONICA, VALDA AND VICTORIA
Trial Balance
as at 30 June 2015

	Debit	Credit
Cash at bank	$ 162 500	
Accounts receivable	248 620	
Inventory	178 460	
Equipment	1 430 800	
Accumulated depreciation – equipment		$ 462 600
Goodwill	360 000	
Accounts payable		345 780
Advance, Victoria (due for payment 31 May 2016)		320 000
Capital, 30 June 2014		
Veronica		160 000
Valda		320 000
Victoria		640 000
Drawings:		
Veronica	60 000	
Valda	60 000	
Victoria	20 000	
Profit or loss summary		272 000
	$2 520 380	$2 520 380

Note: Partnership agreement does not specify profit-sharing ratios.

Victoria made her advance before 1 July 2014. Veronica and Valda each withdrew $12 000 on 30 September 2014, $8000 on 31 December 2014, $5000 on 31 March 2015, and the remainder on 30 June 2015. Victoria made her drawing on 30 June 2015.

The partnership agreement contains the following provisions in relation to the allocation of profits:

(a) A salary of $92 000 per year for Veronica and $56 000 per year for Valda.

(b) Interest of 6% p.a. on capital contributed at the start of each financial year.

(c) Interest on advances of 8% p.a.

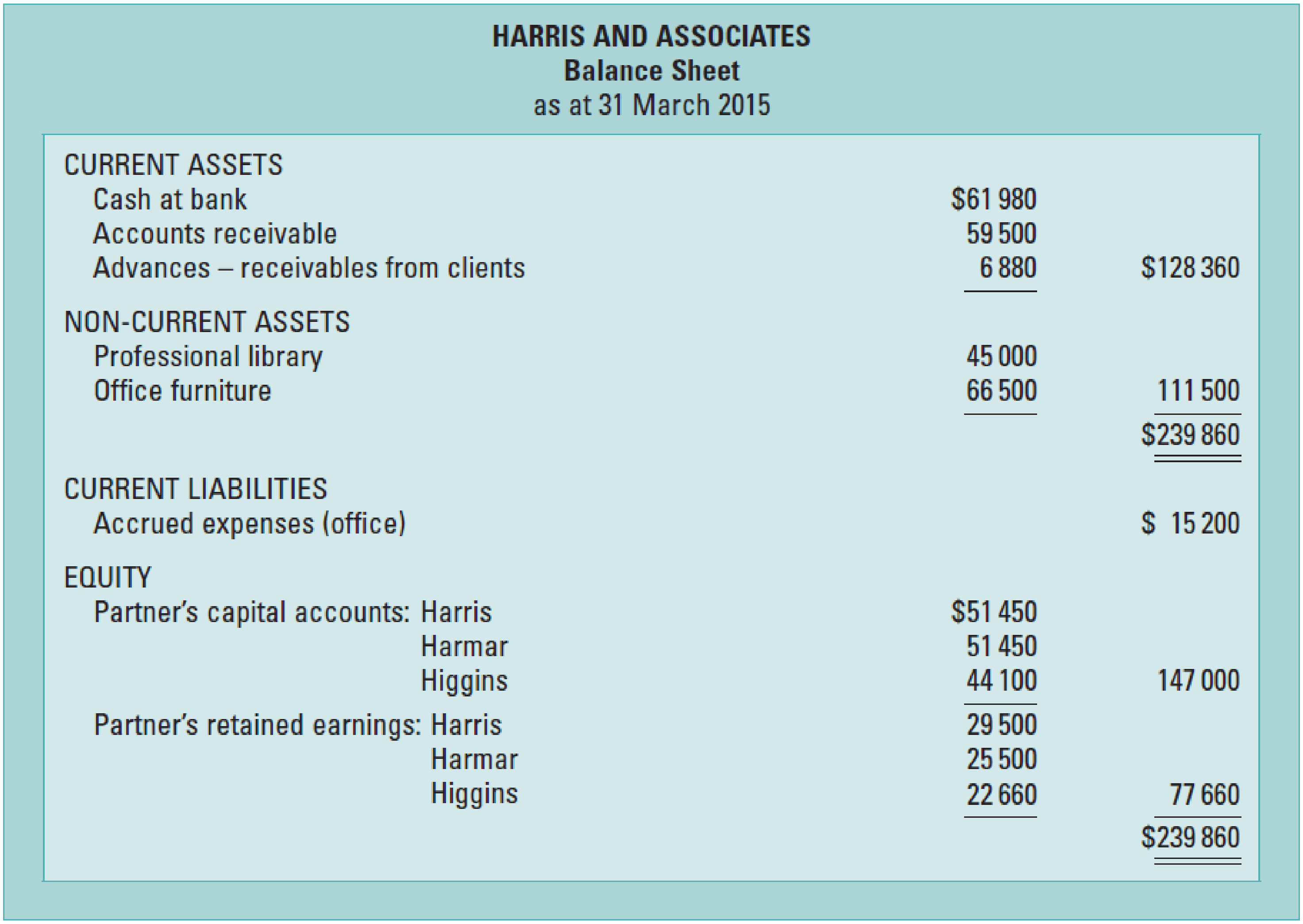
(d) Interest on drawings at 8% p.a.

Required

A. Prepare the Profit Distribution account for the year ended 30 June 2015.
B. Prepare the capital accounts for each partner at 30 June 2015.
C. Prepare the balance sheet as at 30 June 2015.

Problem 8.13 COMPREHENSIVE PROBLEM LO 8

Harris, Harmar and Higgins are partners in the consulting firm of Harris and Associates. The balance sheet of the partnership as at 31 March 2015 is set out on the next page.



HARRIS AND ASSOCIATES
Balance Sheet
as at 31 March 2015

CURRENT ASSETS		
Cash at bank	$61 980	
Accounts receivable	59 500	
Advances – receivables from clients	6 880	$128 360
NON-CURRENT ASSETS		
Professional library	45 000	
Office furniture	66 500	111 500
		$239 860
CURRENT LIABILITIES		
Accrued expenses (office)		$ 15 200
EQUITY		
Partner's capital accounts: Harris	$51 450	
Harmar	51 450	
Higgins	44 100	147 000
Partner's retained earnings: Harris	29 500	
Harmar	25 500	
Higgins	22 660	77 660
		$239 860

It was agreed that all profits would be divided equally between the partners.

Business transactions for the year ending 31 March 2016 were as follows (ignore GST):

Invoices issued for services to clients	$450 000
Cash receipts:	
Accounts for fees collected	452 000
Advances made on behalf of clients repaid	45 000
	$497 000
Cash payments:	
Salaries	$ 92 800
Rent	18 000
Office expenses	19 500
Library maintenance	9 200
Advances made on behalf of clients	40 000
Insurance premiums	6 500
Drawings: Harris	96 000
Harmar	72 900
Higgins	36 300
	$391 200

Accounts payable for office expenses at 31/3/16, $15 000.

Furniture to be depreciated at 15% p.a.

Required

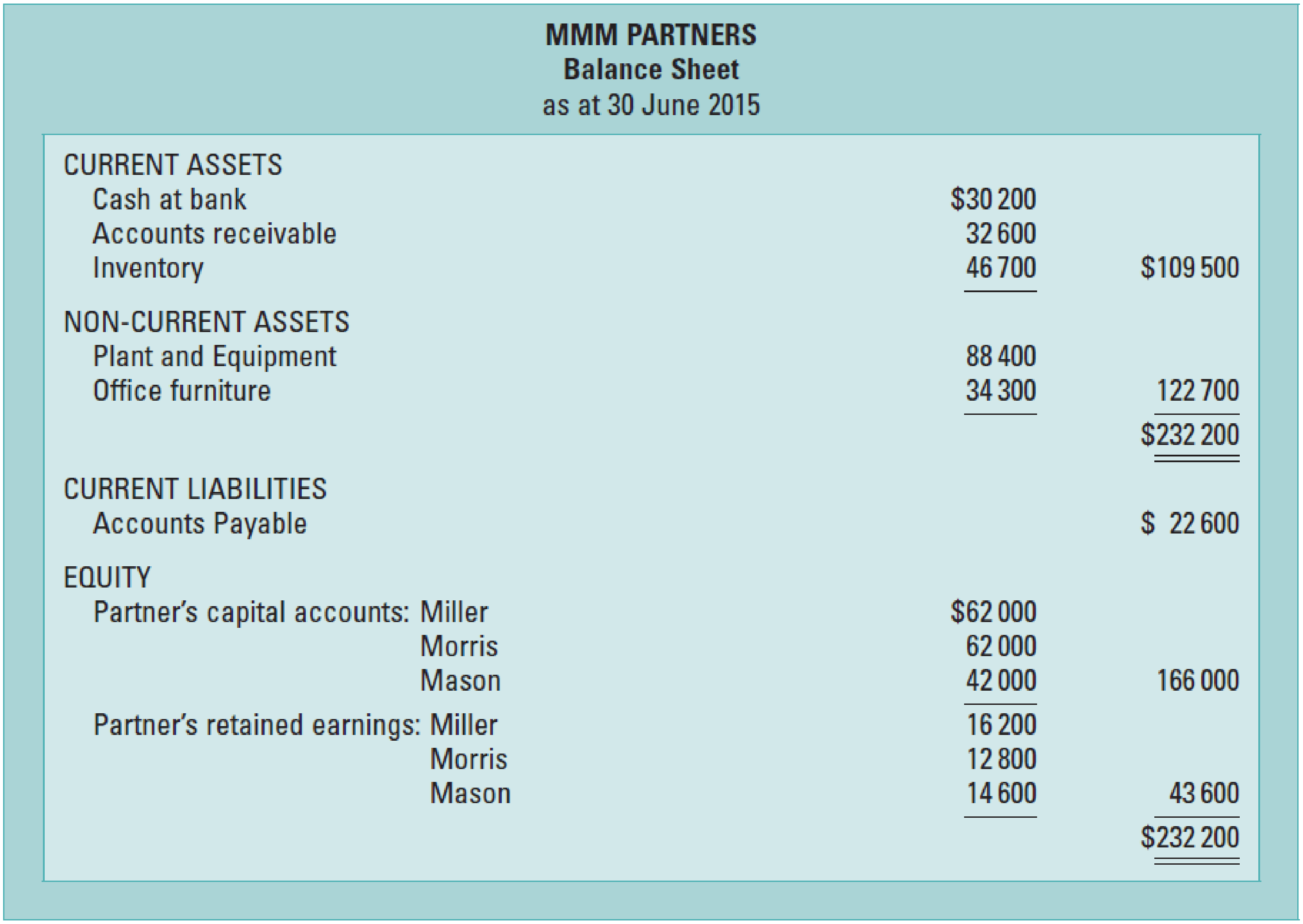
A. Prepare the income statement for the year ended 31 March 2016.

B. Prepare the statement of changes in partners' equity for the year ended 31 March 2016.

C. Prepare the balance sheet as at 31 March 2016.

Problem 8.14 COMPREHENSIVE PROBLEM **LO 8**

Miller, Morris and Mason are partners in the consulting firm of MMM Partners. The balance sheet of the partnership as at 30 June 2015 is set out below.



MMM PARTNERS
Balance Sheet
as at 30 June 2015

CURRENT ASSETS		
Cash at bank	$30 200	
Accounts receivable	32 600	
Inventory	46 700	$109 500
NON-CURRENT ASSETS		
Plant and Equipment	88 400	
Office furniture	34 300	122 700
		$232 200
CURRENT LIABILITIES		
Accounts Payable		$ 22 600
EQUITY		
Partner's capital accounts: Miller	$62 000	
Morris	62 000	
Mason	42 000	166 000
Partner's retained earnings: Miller	16 200	
Morris	12 800	
Mason	14 600	43 600
		$232 200

It was agreed that all profits should be divided equally between the partners.

Business transactions for the year ending 30 June 2016 were as follows (ignore GST):

Sales	$472 600
Cash receipts:	
Sales collected	$474 800
Cash payments:	
Purchases	283 200
Salaries	62 900
Office expenses	24 500
Operating expenses	43 300
Drawings: Miller	12 000
Morris	12 500
Mason	11 800
	$450 200

Inventory at 30 June 2016 was $45 000. Non-current assets are depreciated at 10% p.a.

Required

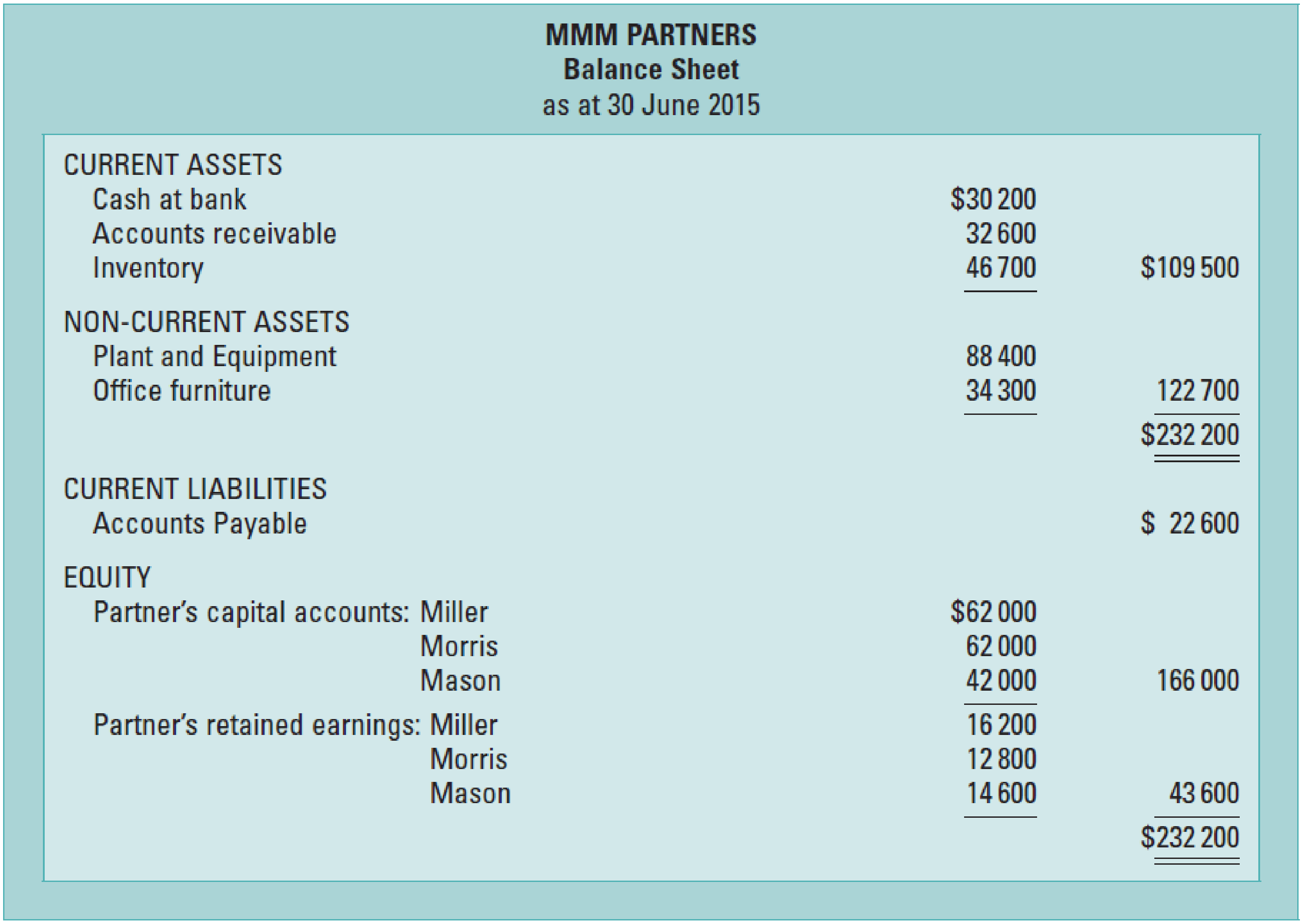
A. Prepare the income statement for the year ended 30 June 2016.

B. Prepare the statement of changes in partners' equity for the year ended 30 June 2016.
C. Prepare the balance sheet as at 30 June 2016.

Problem 8.15 COMPREHENSIVE PROBLEM

LO 8

Jones, Jackman and Johnson are partners in the consulting firm of Triple J Partners. The balance sheet of the partnership as at 30 June 2015 is set out below.



MMM PARTNERS
Balance Sheet
as at 30 June 2015

CURRENT ASSETS			
Cash at bank		$30 200	
Accounts receivable		32 600	
Inventory		46 700	$109 500
NON-CURRENT ASSETS			
Plant and Equipment		88 400	
Office furniture		34 300	122 700
			$232 200
CURRENT LIABILITIES			
Accounts Payable			$ 22 600
EQUITY			
Partner's capital accounts:	Miller	$62 000	
	Morris	62 000	
	Mason	42 000	166 000
Partner's retained earnings:	Miller	16 200	
	Morris	12 800	
	Mason	14 600	43 600
			$232 200

It was agreed that all profits be divided equally between the partners.

Business transactions for the year were as follows (ignore GST):

Sales	$368 600
Cash receipts:	$370 300
Sales collected	
Cash payments:	
Purchases	220 000
Salaries	50 000
Office expenses	19 100
Operating expenses	34 000
Drawings: Jones	9 360
Jackman	9 750
Johnson	9 200
	$351 410

Inventory at 30 June 2016 was $38 700 and Accounts Payable was $18 000.

Non-current assets are depreciated at 10% per annum.

Required

A. Prepare the income statement for the year ended 30 June 2016.
B. Prepare the statement of changes in partners' equity for the year ended 30 June 2016.
C. Prepare the balance sheet as at 30 June 2016.

DECISION ANALYSIS

A partnership without a partnership agreement

O'Malley and O'Reilly formed a partnership on 1 July 2015 to run an information systems consultancy business by investing $400 000 and $360 000 respectively. Both partners work similar hours in the business. O'Reilly has a Masters degree in information systems and 5 years' experience in the workforce; O'Malley has an undergraduate degree and has worked for 3 years; she has invested money inherited from her parents. On 1 January 2016 O'Malley invested an additional $40 000 cash as a capital contribution. On 1 May 2016 O'Malley and O'Reilly withdrew $50 000 each in cash in expectation of profits for the current year ended 30 June 2016. They had not drawn up a partnership agreement and so are not sure how the profits of $120 000 should be distributed to each partner. You have been asked to decide the most appropriate way to divide the profit, and a number of alternative scenarios are provided for you to consider:

(a) no suggestions have been made by the partners
(b) the partners suggest distributing the profits in the ratio of the original capital balances
(c) the partners suggest that O'Malley receives a salary of $40 000 and O'Reilly receives a salary of $60 000 to reflect his greater qualifications and experience, with interest of 5% on ending capital balances, and the remainder distributed evenly between the partners.

Required

A. Calculate the amount of profit distribution to each partner under each scenario. Which scenario is most favourable to O'Malley and to O'Reilly?
B. Given the capital commitments and expertise of each partner, which scenario is the most appropriate for the partnership agreement?
C. What recommendations would you make for any proposed partnership agreement in the event that the partnership incurs a loss for the year?

COMMUNICATION AND LEADERSHIP

Forming partnerships

Divide into groups of three or four according to students' major areas of interest — for example, a group of commerce students, a group of management students, a group of marketing students. Discuss the following and report back to the whole class.

1. If your group formed a partnership to carry out the business of your major area of study, how would you determine who was the senior partner?
2. On what basis can you agree to share profit? Would this be affected by the amount of capital each partner contributed or would you share profits evenly? Would you pay interest to the partners based on their capital contributions?
3. Would you consider paying each partner a salary that reflected their expertise, experience or ability to generate business for the partnership? If so, how would you determine the impact of such factors on the salary of each partner?
4. What other factors would you include in a partnership agreement?

ETHICS AND GOVERNANCE

Partnership concerns

Craig Fraser and Michelle Mason set up a partnership to run a small retail business. Craig contributed $60 000 to begin the business and Michelle's contribution was $50 000. Craig is confident with numbers and accounting whereas Michelle prefers to deal with people and to ignore anything requiring numbers. Michelle has put her trust in Craig to set up the financial side of the business. Craig has decided that all profits should be distributed according to the initial capital contribution by each of the partners.

During the second year of operation Craig bought a new house and to finance the deposit he withdrew $20 000 from his capital investment in the partnership. Michelle accepted that this was reasonable and did not even think about the implications for profit distribution. The following year Craig withdrew another $20 000 from his capital investment in the partnership to reduce his house mortgage. Michelle accepted that as Craig had put the money into the partnership it was only fair that he could take it out again.

Craig and Michelle both worked actively in the business, and generally worked well together as business partners. They both were entitled to a salary of $30 000 on the assumption that they would contribute equally to the management of the business.

Required

A. Who are the stakeholders in this situation?
B. Does Craig appear to be doing anything wrong? Explain your response.
C. Are there any ethical issues involved here? If so, identify them.

FINANCIAL ANALYSIS

Refer to the latest financial report of Country Road Limited on its website, www.countryroad.com.au, and answer the following questions using the consolidated income statement and balance sheet/statement of financial position and notes to the consolidated financial statements.

1. The Country Road Limited income statement shows a deduction (in brackets) for income tax expense. Would this expense item be seen in the income statement of a partnership? Explain your answer.

2. In the statement of changes in equity regarding retained earnings, how is the total profit available appropriated? How does the allocation of the total profit available for appropriation in a partnership differ from that shown for Country Road Limited? Explain the reasons for any differences.

3. Refer to the balance sheet (statement of financial position) of Country Road Limited and the note titled ‘issued capital’. How do these differ from that of a typical partnership? Explain.

4. Country Road Limited is required to produce a statement of cash flows (cash flow statement) and include this in its annual financial statements. Would the typical partnership be ***required*** to prepare such a statement? Why or why not? Would a typical partnership prepare such a statement? Explain.

CHAPTER 9

Companies: formation and operations

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the basic accounting for equity in a company (pp. 210–13)
- how to prepare closing entries in relation to profits (pp. 189–204)
- the format of an income statement, a statement of changes in equity and a balance sheet (pp. 37–44, 159–60).

Learning Objectives

After studying this chapter, you should be able to:

1 describe the different types of companies permitted to exist by law in the Australian business environment and summarise the advantages and disadvantages of the corporate form of organisation (pp. 378–82)

2 describe the documentation required for forming a company and identify the management structure commonly used for administering a company (pp. 382–5)

3 describe the three main categories of equity in a company (pp. 383–7)

4 account for the issue of shares (pp. 387–95)

5 account for the declaration and payment of cash dividends on shares, share dividends and share splits (pp. 395–400)

6 account for the creation and reduction of the different types of reserves that are included in equity (pp. 400–1)

7 prepare basic entries for income tax expense in a company (p. 402)

8 prepare a company's income statement, statement of changes in equity and balance sheet for internal use (pp. 402–8).

Seek a house, find a job

Paul Basset was frustrated in his search to buy a house through newspaper classifieds. There had to be a better way! Paul, in consultation with his brother Andrew, researched the main classified markets — real estate, cars and employment — and then developed a plan around an online job classified business. With little start-up capital, they sought money from old clients, friends and family. They named their new company ‘Seek’. Eventually, Seek went public, offering investors shares at $2.20. A year later, the share price had climbed to $4.00 and the company’s ordinary shares had a market value over $1 billion. Seek has experienced ups and downs as the economy has ebbed and flowed, but it is now Australia’s leading employment web site.

Babcock & Brown is a different story. Founded in San Francisco and opening a Sydney office five years later, Babcock & Brown operated as a corporate consultancy specialising in aircraft and equipment leasing. With seed capital gained from a German bank the company’s focus turned to investment banking and it became known globally for its structured finance deals. Buoyed by its success, Babcock & Brown sought to become a bigger global player, and management sold shares at $5 in an initial public offering. By the end of the first day the price had increased to $7.98 per share. However, for Babcock & Brown, life in the fast lane came to an abrupt halt with the onset of the global financial crisis. Its share price was $33.90 at the beginning of the global financial crisis; a year later the share price was $0.14. Within a year of that the creditors of Babcock & Brown voted to place the company in liquidation.

Both Seek and Babcock & Brown were initially funded with private capital but then turned to the public markets when private sources of capital were no longer adequate to fund their growth. While they ultimately experienced sharply different levels of success, Seek and Babcock & Brown obtained financing from comparable sources.

Source: Martin, R 2004, 'Seek a house, find a job', ***Catapault*** 7 December.

Chapter preview

The corporate form of business organisation is not as common as the sole trader or partnership. Nevertheless, the size of business activity conducted by companies far exceeds that of the other two combined. Companies or corporations control vast amounts of economic resources and therefore play a dominant role in the national economy of Australia. Most large businesses as well as many small ones are organised as companies, and it is important to have an understanding of companies and their accounting practices.

The domination of our economy by companies has led to increasing demands for information about them. Almost everyone is affected in their daily lives by the activities of companies. We all buy goods and services produced by them; many people work for companies, receive interest and dividends from them or sell goods and services to them. All segments of society — including investors and prospective investors, creditors, labour unions, government agencies and consumers — are necessarily interested in the financial strength and profitability of companies as a means of assessing the efficiency with which they have used resources. Many are also interested in the environmental and social impacts that companies have on the Australian way of life.

Because of the sizeable impact that companies have on our lives, all companies are required to comply with certain rules and regulations and accountability requirements established by government. All companies are formed, administered and wound up in accordance with the ***Corporations Act 2001***, a uniform legal code throughout Australia. The administration of all companies is carried out by one federal body, the Australian Securities and Investments Commission (ASIC), with branches in each state.

9.1 Types of companies

LO 1 **Describe the different types of companies permitted to exist by law in the Australian business environment and summarise the advantages and disadvantages of the corporate form of organisation.**

Under the Corporations Act, and similar legislation worldwide, a company is a legal entity or artificial person, separate and distinct from its owners. Each company registering or incorporating in Australia is allocated an Australian company number (ACN) that helps to identify it, and an Australian business number (ABN) is issued when it registers for tax purposes.

As a separate legal entity, a company has many of the rights, duties and responsibilities of a natural person. It can, through its agents, buy, own and sell property in its own name and engage in business activities by entering into contracts with others. It has legal status in a court and can sue and be sued, is legally responsible for its liabilities, and must pay income tax just as a natural person does. A company's money and other assets belong to the company, and must be used for the company's purposes.

The main difference between a company and a natural person is that a company can act only through its agents, such as directors, employees and others empowered to act on its behalf.

A number of different types of companies exist under the Corporations Act, and may be classified broadly as:

1. limited companies
   (a) proprietary companies with a share capital
   (b) public companies with a share capital
   (c) companies limited by guarantee, without any shares
2. unlimited companies, which may be proprietary or public companies, both of which must have a share capital
3. no-liability companies
4. special companies
   (a) investment companies

(b) banking companies
(c) life insurance companies.

These different types are described briefly on the following pages.

Limited companies

One of the main reasons for setting up a company is that the corporate form of organisation permits individuals to have limited liability in relation to personal funds they are required to contribute to the company. Under corporate legislation, the shareholders in a **limited company** are liable only to the extent of the amount unpaid on their shares up to the full issue price of those shares. For example, if a company has issued 1000 shares with an issue price of $5, and the shares have been paid up to $3, the maximum liability each shareholder has to pay to the company if it cannot pay its debts is $2 per share. Contrast this with the partnership form of organisation in which each partner is personally liable for all partnership debts, i.e. unlimited liability. If one or more partners are insolvent, the remaining solvent partners must meet all losses and debts out of their private assets. This principle of unlimited liability also applies to a sole trader. A limited company is required by corporate legislation to have the word ‘Limited’ or the contraction ‘Ltd’ at the end of its name. It can be either ‘proprietary’ or ‘public’.

Proprietary companies

A **proprietary company** may be formed by a minimum of one person and need have only one director; however, certain restrictions are placed on the company with regard to the maximum number of shareholders (namely, 50) and the right to raise capital — it cannot raise funds from the general public. The company must have the word ‘Proprietary’ or the contraction ‘Pty’ as part of its name inserted before the word ‘Limited’ or the contraction ‘Ltd’. Usually, a proprietary company is a family business that has been incorporated to obtain the benefits of limited liability for the family members who own the business or is owned by another company and exists for some special purpose.

A proprietary company must have a share capital, i.e. it cannot be limited by guarantee; but there are no restrictions placed on the transfer of its shares to others, except that the directors of the company can refuse to allow the transfer and they cannot be made available for sale to the general public. The law also provides for proprietary companies to be classified as ***large*** and ***small***, but a company’s classification can change from one year to the next, as circumstances change. A small proprietary company is defined as one that satisfies at least two of the following tests:

- the consolidated gross revenue for the financial year of the company and the entities it controls (if any) is less than $25 million, or any other amount prescribed by the regulations
- the value of the consolidated gross assets at the end of the financial year of the company and the entities it controls (if any) is less than $12.5 million, or any other amount prescribed by the regulations
- the company and the entities it controls (if any) have fewer than 50 employees, or any other number prescribed by the regulations, at the end of the financial year.

If a proprietary company is not classified as ‘small’, then it is ‘large’ and is subject to additional reporting and auditing obligations under the Corporations Act. (Even small proprietary companies have to comply with additional reporting and auditing obligations in certain circumstances.) Determination of consolidated gross operating revenue and consolidated gross assets must occur in line with current accounting standards, and part-time employees must be counted as an appropriate fraction of a full-time equivalent in assessing whether a proprietary company is large or small.

Public companies

A business registered as a **public company** may have a minimum of only one member, but is required to have three directors, two of whom must ordinarily reside in Australia. Generally speaking, however, ownership of a public company is widely spread, with large numbers of people owning a relatively small number of shares each. The major advantage of a public company is that the company is entitled to raise capital by inviting members of the public to subscribe for any of its shares, debentures, unsecured notes or loans, and to have these shares, debentures, etc. listed for easy transferability on one or more of Australia’s securities exchanges.

Because the activities of public companies can significantly affect the general public, much of the legislation has been passed to protect the ‘public interest’. For example, public companies must issue a disclosure document known as a prospectus before issuing shares or debentures.

If a public company wishes to have its shares listed on the securities exchange in Australia, the company must comply with regulations issued by ASIC and the Listing Rules issued by the Australian Securities Exchange (ASX) or the National Stock Exchange of Australia (NSX). See the ASIC website, www.asic.gov.au, for regulations related to public companies, and also either the ASX website, www.asx.com.au, or the NSX website, www.nsxa.com.au, for information on their Listing Rules.

Companies limited by guarantee

A **company limited by guarantee** is also a public company, whose members undertake to contribute a guaranteed amount if the company is wound up. Companies of this type are commonly associated with special events such as an arts festival or sporting event. The Corporations Act, from 2010 onwards, also distinguishes between large and small companies limited by guarantee. Small companies of this type are exempted from having to comply with certain accounting standards.

Unlimited companies

In an **unlimited company**, members are liable for all debts of the company. The unlimited company is not common in Australia and exists to some extent among mutual funds, a type of investment company.

No-liability companies

A **no-liability company** is a public company that does not have a right to require shareholders to make any contribution towards the debts of the company; there is no liability on the part of shareholders to pay any calls on shares. Non-payment of a call leads to automatic forfeiture of shares. Such a company must engage solely in mining activities, and must have the words ‘No Liability’ or the abbreviation ‘NL’ at the end of its name.

Special companies

Investment companies

An investment company is a special type of company that is engaged mainly in the business of investment in marketable securities for the purpose of earning profits, and not for the purpose of exercising control. It is subject to certain restrictions on borrowing, on investment in other companies, on holding shares in other investment companies and on speculation.

Banking companies

A banking company is defined as any bank constituted under a law of a state or territory or as defined in the Banking Act. Under corporate legislation, banks are given certain privileges and special provisions regarding the issue of a prospectus for the purpose of subscribing for debentures and the presentation of financial statements.

Life insurance companies

A life insurance company is registered under the Life Insurance Act. It is subject to special requirements regarding the preparation and presentation of annual financial statements.

Advantages and disadvantages of the corporate entity

Advantages

The corporate form of business has several advantages over the sole trader and partnership forms. The main ones are discussed below.

Limited liability

As a separate legal entity, a company is responsible for its actions and liabilities. Creditors have claims only against the assets of the company, not against the personal assets of the shareholders. Because owners of a company are not personally liable for corporate debts, the maximum amount they can lose is the amount they have already invested, plus any money owing on shares. To investors, this is one of the most important advantages of the corporate entity, because under the alternative forms of business organisation, owners are personally liable for business debts if the business becomes insolvent. This makes it much easier for a company to raise capital from investors, as the investors know the maximum extent of any possible losses to them. However, shareholders are generally separated from the day-to-day operations of the company and cannot participate in the daily management.

Broad source of capital

Ownership rights in companies are represented by transferable shares. By dividing ownership of the business into many shares, each with a relatively small value, both large and small investors are able to participate in the ownership of the business. Most large public companies can therefore draw on the savings of many people and other entities to obtain the capital they need. For example, a company's capital of $100 000 000 may be divided into 10 000 000 shares issued at a price of $10 each, which thus allows small investors to buy small parcels of shares. (Telecommunications company Telstra has about 1.4 million different shareholders each having an average of 8900 shares. Riskier companies, such as small mining exploration companies, will often have shares priced at one or two cents each.)

Continuity of existence

A company has an indefinite life and continues in existence even if its shareholders change, i.e. a company has the attribute of perpetual succession. The transfer of shares from one owner to another has no effect on the continuity of a company. In contrast, the death, incapacity or retirement of an owner terminates the business of a sole trader or a partnership.

Ready transferability of shares

Company shares may be transferred easily without disrupting the activities of the company. Shares in public companies can be bought and sold through stockbroker's websites, as well as by more traditional means. Consequently, shareholders can readily convert most of their investments in shares into cash in minutes if the need arises.

Use of professional management

Although the shareholders own the company, they do not manage its activities. Shareholders elect a board of directors, consisting of professional managers, accountants and other experts, which has overall responsibility for administrative decisions. The board then hires a managing director or chief executive officer (CEO) to manage the business.

In contrast to a partnership, no mutual agency exists in a company. An individual shareholder does not have the right to bind the company to a contract unless he or she has also been hired as a corporate officer and given this authority. This separation of management and ownership permits the company to obtain the best managerial talent available.

Potential income tax savings

One of the major reasons for the formation of companies is the potential savings in income tax that flow to shareholders. Although a sole trader or a partnership is not subject to income tax as a separate business unit, any profit derived by sole traders and partners is taxed as personal income and is subject to marginal tax rates that may rise above 40%, excluding the Medicare levy. In contrast, a company pays income tax as a separate legal entity, at a flat tax rate, which at 30 June 2016 was 30%, and does not pay a Medicare levy. Hence, depending on the level of a person's income, there may be tax advantages in incorporation because of the potential difference in tax rates and treatments.

These advantages for companies are improved considerably by the dividend imputation scheme for the taxing of dividends received by shareholders. Before the dividend imputation scheme was introduced, when a company's after-tax profits were distributed to its shareholders as dividends the profit was taxed again as personal income of the shareholders receiving the dividends. However, under the dividend imputation scheme, shareholders are allowed a tax rebate for dividends received out of company profits on which the company has been fully taxed. These dividends are referred to as ***franked*** dividends. Dividends are discussed in more detail later in the chapter.

Disadvantages

The corporate entity also has some disadvantages when compared with the sole trader and partnership forms. The main disadvantages are described below.

Greater government regulation

Companies are created under an Act of Parliament and are subject to a much greater degree of control and supervision than are sole traders or partnerships. In addition, public companies must prepare regular financial statements for presentation to their members, to the securities exchanges on which their shares are traded, and to ASIC. These annual reports must be prepared in accordance with the disclosure requirements provided in accounting standards, and with the Listing Rules of the ASX. Satisfaction of these reporting requirements often can be very costly and time-consuming.

Separation of ownership and management

The use of professional managers was cited earlier as an advantage of the corporate entity. In some cases, however, this separation of ownership from management may prove to be a disadvantage because managers, even though they are employed as agents of the shareholders, sometimes operate companies for their own benefit rather than for the benefit of the shareholders — this is called the ***agency problem***. Considerable harm may be done before shareholders become aware of the situation and take action to change management. Many requirements in corporate legislation have been established to discourage management from acting in their own interests to the detriment of shareholders. Increased disclosure of corporate governance has been required as a means of providing a level of accountability to a company's shareholders.

LEARNING CHECK

☐ The requirements of the Corporations Act 2001 must be consulted before forming and administering a company.

☐ In a limited company, shareholders are personally liable for the company's debts only to the extent of the unpaid amount on the shares they own.

☐ A proprietary company, unlike a public company, is one where the number of shareholders is restricted to 50 and the company is not permitted to raise funds from the public.

☐ The advantages of the company form of organisation over the sole trader or partnership include limited liability, the ability to raise funds, easy transferability of ownership, continuity of existence, use of professional management and potential savings in income tax.

☐ The disadvantages include greater government regulation and the separation of ownership from management, in that managers, as agents of the shareholders, are inclined to make company decisions in their own self-interests.

9.2 Forming a company

LO 2 **Describe the documentation required for forming a company and identify the management structure commonly used for administering a company.**

Under the Corporations Act, any person may lodge an application with ASIC in order to register a company. One is the minimum number of people needed to form a company.

The application form must contain the following information:

- the type of company that is proposed to be registered under the Corporations Act
- the company's proposed name (unless the ACN is to be used in its name)
- the name and address of each person who consents to become a member
- full names, date and place of birth, and address of each person who consents in writing to become a director or a company secretary
- the address of the company's proposed registered office and proposed principal place of business (if it is not the address of the proposed registered office)
- for a public company — the proposed opening hours of its registered office
- for a company limited by shares or an unlimited company — the following:
  - **(i)** the number and class of shares each founding member agrees, in writing, to take up
  - **(ii)** the amount each founding member agrees, in writing, to pay for each share
  - **(iii)** if that amount is not paid in full on registration, the amount each founding member agrees in writing to be unpaid on each share.
- for a public company that is limited by shares or is an unlimited company, if shares will be issued for a non-cash consideration — the prescribed particulars about the issue of the shares, unless the shares are issued under a written contract and a copy of the contract is lodged with the application
- for a company limited by guarantee — the proposed amount of the guarantee that each member agrees to in writing.

If the company is to be a public company and is to have a constitution on registration, a copy of the constitution must be lodged with the application. To register a company in accordance with these requirements, all of the details above must be provided on a single prescribed application form.

Replaceable rules and constitution

Rules for governing the internal affairs of a company, especially with respect to the dealings between management and shareholders, have been built into the Corporations Act and are called **replaceable rules**. A company can adopt the Act's replaceable rules as its own rules. These rules deal with the appointment, powers and remuneration of directors, directors' meetings, members' meetings, share transfers and inspection of the company's books by members. However, if a company wishes to adopt different rules from any of these replaceable rules, it needs to set up its own **constitution**, specifying the different rules that it wishes to have for operating its internal affairs. The company must then conduct its activities under both the replaceable rules it is happy to adopt and its own constitution.

If a public company decides to have a constitution to determine relationships between management and shareholders, and relationships between different classes of shareholders, then this constitution must be lodged with ASIC along with the application for registration. Alternatively, the company may decide to adopt a constitution by special resolution of its members after the company's registration. If so, a copy of the constitution and the special resolution must be lodged with ASIC within 14 days after it is passed. The company can also modify or repeal its constitution by a special resolution of members. If so, such information must also flow to ASIC.

In the interests of simplification, the Australian Government hopes that most proprietary companies will choose to abide by the replaceable rules in the Act instead of establishing their own constitutions. If a company is a public company listed on the ASX, however, it is required by the ASX Listing Rules to have its own constitution.

A company's constitution (if any) and any replaceable rules that apply to the company act as a contract between the company and each member, each director, and the company secretary, and between a member and each other member. Unless members of a company agree in writing, they are not bound by any of the following modifications to the constitution made ***after*** the date on which they became members:

- modifications that require the members to take up additional shares
- modifications to increase the members' liability to contribute to the share capital of, or otherwise pay money to, the company
- modifications to impose or increase restrictions on the right to transfer the shares already held by the members, unless the modifications are made in connection with the company's change from a public company to a proprietary company, or as part of a takeover arrangement.

The certificate of registration

In order to incorporate the company, ASIC issues a **certificate of registration** on approval of the company's application for registration. The company is also issued with its Australian company number (ACN). The company is considered to be registered as from the date on the certificate — it is able then to perform all the functions of a corporate body, and is capable of suing and being sued and of acquiring, holding and disposing of property.

The prospectus

When raising funds for the start of business or for future economic development, any offer or invitation by a company to issue shares, debentures or other securities must be accompanied by a disclosure document known as a **prospectus**. A prospectus contains all the information that potential investors and their professional advisers reasonably require and expect for the purpose of making an informed assessment of (a) the assets, liabilities, financial position, profits and losses, and prospects of the company, and (b) the rights attached to the securities being issued. In addition, the interests of every director or proposed director in any property that may be acquired with the money from the security issue must be disclosed in the prospectus.

The prospectus must be lodged with ASIC, and those who produce the prospectus may be subject to civil liability for the contravention of prospectus requirements under the law. ASIC has the power to restrain dealings in securities subject to a prospectus if it considers that there has been a breach of the requirements or that it contains any misleading information. A company may be required to issue supplements to the prospectus if there has been a significant change in items disclosed in the original prospectus.

Administering a company

Although control of a company rests ultimately with its shareholders, that control is exercised only indirectly. Administration of the company is usually placed in the hands of a board of directors who set overall corporate policies and appoint a managing director or CEO and other officers to manage the company's day-to-day affairs.

The board of directors is responsible to the shareholders for the formulation of overall business policies in the running of the company. Duties of the board generally include:

- protecting the rights of shareholders
- setting officers' salaries
- recommending and declaring dividends
- authorising long-term borrowing, additional share issues and major capital projects
- reviewing the system of internal control.

The board of directors is normally composed of a chair, executives such as the managing director (or CEO), and directors appointed by large shareholders. In addition, the board normally includes several outside or part-time directors to ensure a more objective evaluation of management performance.

Official actions of the board are recorded in the minutes of its meetings. The ***minutes book*** is important to the accountant because it contains board decisions that serve as the basis for the authorisation of certain transactions and the recording of these.

A company's senior management team usually includes a managing director (or CEO) with responsibility to the board of directors for managing and controlling business activities. The CEO is normally supported by one or more general managers who are responsible to the CEO for specific functional areas. For example, a company may have a general manager of marketing and sales. Other officers are the chief financial officer, the treasurer and the secretary.

The ***chief financial officer*** (CFO) is generally responsible for maintaining the accounting records and an adequate internal control system, preparing financial statements, tax returns and other reports, developing the budget and financial plans, and ensuring the business activities are adequately financed. The CFO also often advises the board of directors about the accounting and tax consequences of proposed corporate actions. The ***treasurer*** is the main manager of cash. He or she normally has responsibility for the custody of the company's funds and is responsible for planning and controlling the company's cash position. The ***secretary*** maintains the minutes of meetings of the directors and shareholders, and represents the company in many legal and contractual matters. The secretary normally also maintains the register of shareholders and the amount of their share interests. Some companies, particularly smaller ones, combine the positions of secretary and treasurer.

Figure 9.1 Organisation chart — public company

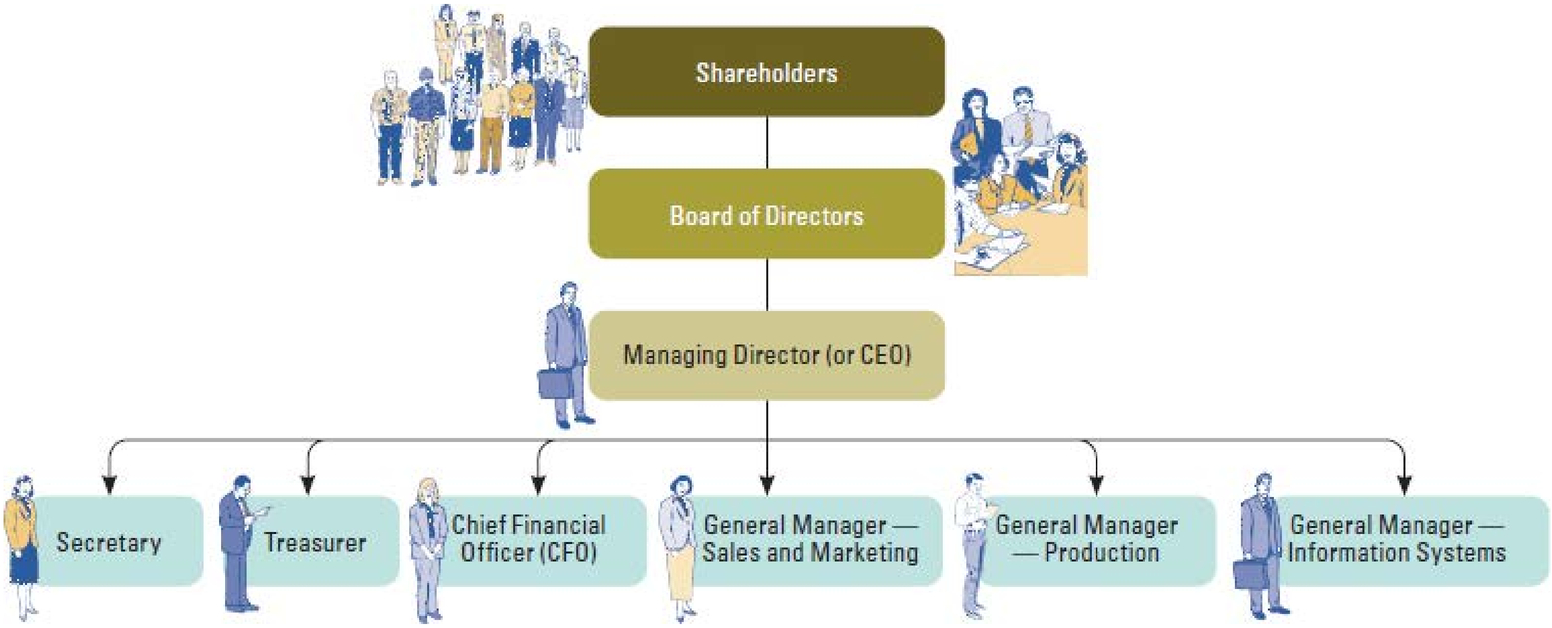


Figure 9.1 illustrates a typical public company organisation chart. Lines of authority extend from the shareholders to the board of directors to the managing director to other officers.

LEARNING CHECK

☐ A company is formed on the completion of an application and the issue of a certificate of registration.

☐ The replaceable rules contained in the Corporations Act apply except where the company has adopted its own constitution.

☐ A disclosure document known as the prospectus must be issued and lodged with ASIC if a company wishes to raise funds.

☐ The board of directors is responsible for the overall administration of a company.

☐ The CEO is responsible for the overall operations of the company and the CFO is responsible for all financial matters, including accounting and financial control systems.

☐ The treasurer is responsible for the custody of the company's funds and the secretary is responsible for minutes of meetings and keeping records of share ownership.

9.3 Categories of equity in a company

LO 3 **Describe the three main categories of equity in a company.**

Accounting for a company is similar in most respects to accounting for a sole trader or partnership. The income statement and the asset and liability sections of the balance sheet are essentially the same for all forms of business organisation. There is a major difference, however, in accounting for equity. The equity of a typical company is split into three major categories:

(a) share capital
(b) retained earnings
(c) other reserves.

Share capital

Share capital is an equity account representing the amount of assets invested in the company by its shareholders. Under the Corporations Act, a company can issue shares on the terms and with the rights and restrictions that the directors determine. Thus, a company can issue shares at any price, a determining factor being the marketplace. A company will issue its shares at the price it thinks will attract investors to buy the shares. For example, one company may issue shares at, say, 80 cents each; another company may issue its shares at $10 each.

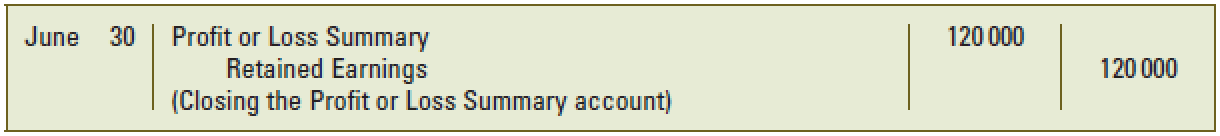
Under the Act, a company is allowed to issue partly paid shares. For example, a share may be issued at $3.50, with $2.00 payable immediately and the balance payable in one year's time. This additional amount of $1.50 is referred to as **uncalled capital** until the company makes a **call** on the shares in one year's time, i.e. in accordance with the terms of the share issue. When the call is made, the shareholders are required to pay in the extra $1.50 per share to the company (unless the company is a no-liability company).

The practice of requiring a company's shareholders to pay by instalment has been used in Australia particularly for large public issues, e.g. Telstra. However, the issue of shares fully paid is more common. Both situations are covered in this text.

A company has the right to issue ordinary shares and preference shares (see later in this chapter) and can determine the terms on which these shares are issued. Generally, a company offers shares as the directors see fit for the effective management of the company. Some shares may be issued to the public whereas other shares are 'privately placed', i.e. sold to a specific person or other entity; however, a company can issue shares to the public only if it is a public company, and this must be done only after the issue of a prospectus. Sometimes shares are issued to the existing shareholders only (rights issues), and sometimes the shares may be bought back from existing shareholders. Share buybacks are discussed in Leo et al., ***Company Accounting***, 10th edn (John Wiley & Sons, Brisbane, 2015) and are not considered in any detail here.

Retained earnings

Retained earnings is a special type of reserve account that reflects the amount of profits (after tax) earned by the company and retained in the business. When a company's income and expense accounts are closed at year-end, the Profit or Loss Summary account is closed to Retained Earnings. For example, if profit for the year is $120 000, the Profit or Loss Summary account has a credit balance and is closed to Retained Earnings by the following entry:



June	30	Profit or Loss Summary	120 000	
		Retained Earnings		120 000
		(Closing the Profit or Loss Summary account)		

BUSINESS KNOWLEDGE

The sustainable accountant

We are witnessing a radical economic, political, social and business shift towards more sustainable practices. All businesses — regardless of size, sector or geographic location — face significant financial, strategic and operational challenges in adapting. Some businesses are more advanced than others in dealing with the issues related to sustainability. This is particularly the case for a number of companies that are at the vanguard of the sustainability movement in the UK and Europe, with fewer companies in Asia well prepared at present to deal with the issues. On average, Australian businesses probably occupy the middle ground.

Many accountants, in their role of 'strategic resource manager', will play a common and critical part in helping businesses to answer these new-found challenges. Although stakeholders increasingly have expectations that businesses will operate in a sustainable fashion, it is surprising that accountants are not necessarily top of mind for employers when it comes to working out a sustainable development strategy and reporting non-financial business information — particularly information that reflects a company's sustainability performance.

After all, accountants are skilled at capturing and interpreting vital corporate information which is used as a basis for organisational decision-making. This makes them fundamental to the development and reporting of sustainability practices and their various impacts. Our members' ability to contribute to a business's direction and development was a factor in determining our vision that CPA Australia be the global accountancy designation for strategic business leaders.

Recent research, commissioned by CPA Australia and carried out in Australia, Hong Kong, Singapore, Malaysia and New Zealand, shows there is a distinct lack of understanding in the marketplace about who has ownership of sustainability reporting. Most employers said they were better at practising sustainability than reporting on it. Yet, the same employers cited brand and reputation as a primary reason for reporting. This suggests that they are missing an opportunity if they are not actively or successfully communicating what they are doing in the sustainability space. Members of CPA Australia who were surveyed, and who have an opportunity to influence their employer, also indicated that building brand and reputation was the primary reason for sustainability reporting. However, only 37% who participated in the survey claimed to be undertaking some form of sustainability reporting. Encouragingly, 72% felt they should be doing so.

Awareness of what is involved in sustainability reporting might be one obstacle to more widespread reporting on sustainability. Many survey respondents claimed that their first sustainability report was produced following a 'trial and error' approach, and only a third of employers who took part in the survey said they had adapted their business systems for sustainability reporting. In time, this will change, but finding ways to accelerate the pace of change seems worthwhile. One way to speed things up is to achieve consensus on what to report, when to report, where to report, and how to report. To this end, some useful work already has been done. The Global Reporting Initiative (GRI), in which CPA Australia is a stakeholder, has a clear framework on what to report. The GRI consulted widely on the development of its reporting framework, and CPA Australia advocates its use by businesses as well as using it to report on CPA Australia and its activities.

Although the GRI framework has been in existence for some years and is used by companies internationally, another player, the International Organization for Standardization, has entered the arena with a draft ISO 26000 – ***Guidance on Social Responsibility***. Technically, ISO 26000 does not require anybody to do anything. Unlike other ISO standards, it is not designed for certification but guidance. It can be argued, however, that the GRI framework, along with the principles contained in the United Nations Global Compact, through providing sustainability reporting guidelines, already fulfils the aim of ISO 26000 to provide assistance for organisations in understanding and operationalising social responsibility. We caution against the proliferation of more standards in the environmental, social and governance domain where there is clear demand for greater convergence.

I believe that, just as the business world and the accounting profession jointly understand the benefit in having global accounting standards for financial information, the value to be obtained by reporting non-financial information will increasingly become clear and will result in a common global standard for sustainability reporting and other forms of non-financial reporting.

Source: Professor Petty, R 2010, 'The sustainable accountant', ***InTheBlack***, p. 9.

If the company incurred a loss for the year, the Profit or Loss Summary account has a debit balance and the closing entry consists of a debit to Retained Earnings and a credit to the Profit or Loss Summary account. A debit balance in the Retained Earnings account is called an **accumulated loss** and is deducted in arriving at total equity.

Other reserves

Reserves are another category of equity created as a result of the application of generally accepted accounting practice or under accounting standards. Retained earnings are regarded as a subcategory of reserves. Further discussion of reserves is provided later in the chapter.

LEARNING CHECK

☐ A company's equity is divided into three categories: share capital, retained earnings and other reserves.

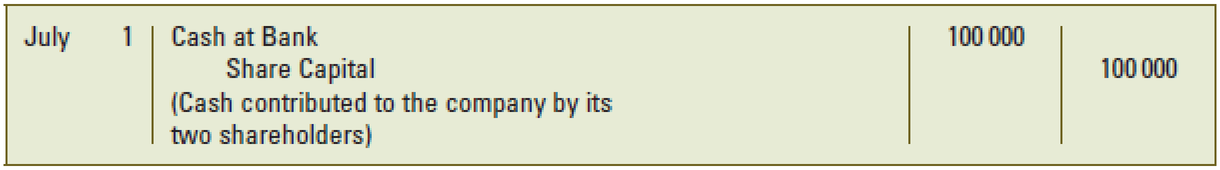
9.4 Accounting for share issues

LO 4 **Account for the issue of shares.**

Directors have a number of choices when issuing shares. First, they may choose to issue ordinary shares, preference shares or both. Second, the shares may be issued (a) payable in full on application, (b) deposit payable on application and the remainder on allotment (i.e. when shares are allotted to applicants) or (c) part payment on application, part on allotment, and the remainder in one or more instalments or calls. As mentioned above, (a) has been the most common. Nevertheless, in this chapter we intend to illustrate all choices by considering the type and purpose of the accounts used in accounting for share issues.

Private share placements

Once a company has received its certificate of registration, it is able to raise money by issuing shares. Money may be raised privately by prospective shareholders contributing funds to the company. This is the practice used in proprietary companies. However, some public companies also make private placements to institutional investors such as insurance companies and superannuation funds. To illustrate a share issue to private investors, assume that, on 1 July 2016, Allan and Barbara Hume each contribute $50 000 in cash to buy shares in the proprietary company Hume Enterprises Pty Ltd (such raising of capital is free of GST). The appropriate journal entry (in general journal format) to record this event is:

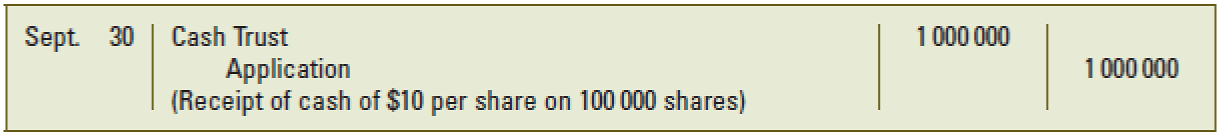


July	1	Cash at Bank	100 000	
		Share Capital		100 000
		(Cash contributed to the company by its two shareholders)		

Public share issue, payable in full on application

Under corporate legislation, a public company is allowed to invite the public to subscribe for shares whereas a proprietary company cannot make any such invitation. First, the public company draws up a prospectus — an application form for shares cannot be issued unless a disclosure document such as a prospectus has been issued. The company specifies how many shares it would like to issue but at this stage no accounting entries are made. It is the subscriber or applicant who makes the offer to buy the shares by completing the application form. It is then up to the company to accept or reject the offer. Those people willing to apply for shares complete the application form and forward this, plus the application fee, to the company.

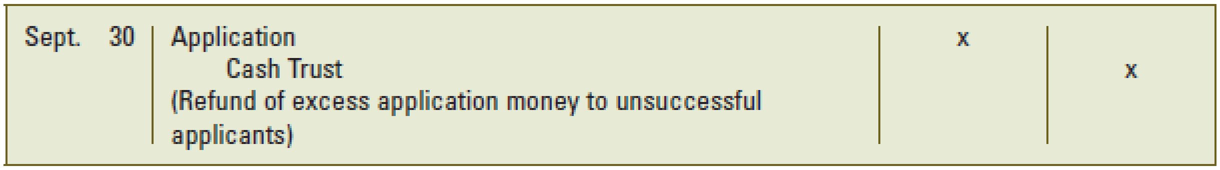
Assume that, on 30 September, Brazil Ltd received application forms for a total of 100 000 shares from prospective shareholders, receiving the issue price of $10 per share. The following entry is made:



Sept.	30	Cash Trust	1 000 000	
		Application		1 000 000
		(Receipt of cash of $10 per share on 100 000 shares)		

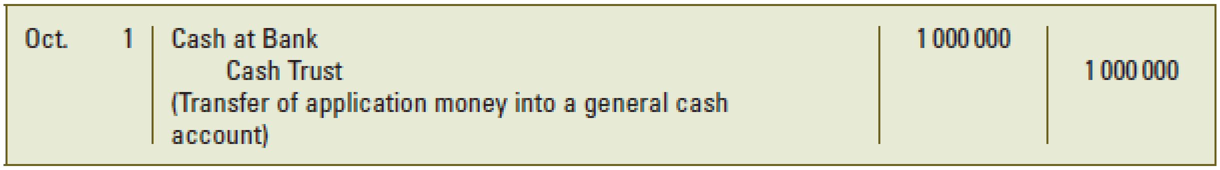
Until shares are allotted to applicants, the money received by the company must be held in a special Cash Trust account. The debit to the Cash Trust account represents money paid in by applicants before shares are allotted, the credit entry going to an **Application** account.

No further entries are made until the directors allot shares to successful applicants. Allotment of shares can occur only if a certain minimum subscription as specified in the prospectus has been reached. If the minimum subscription is not reached, all application money must be refunded out of the Cash Trust account. Once the minimum subscription has been attained, directors can allot the shares to applicants as they see fit. In some cases, the number of shares applied for may exceed the number being issued. Hence the directors may allot shares proportionally (pro rata) to each applicant or on a first-come-first-served basis, or some other basis. This could cause the directors to refund some cash to unsuccessful applicants, the entry being:



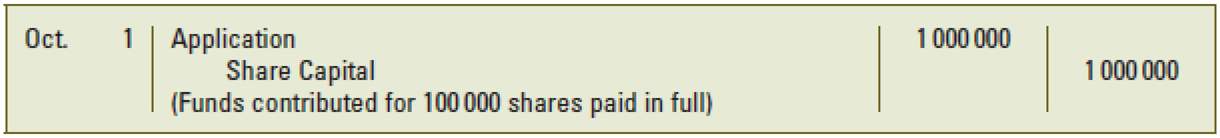
Sept.	30	Application	x	
		Cash Trust		x
		(Refund of excess application money to unsuccessful applicants)		

Once the directors have allotted the shares, the amount of money paid in by successful applicants is transferred from the Cash Trust account to the Cash at Bank account. The entry is made here in the general journal for illustrative purposes; however, it is usually made in the cash receipts journal of the company.



Oct.	1	Cash at Bank	1 000 000	
		Cash Trust		1 000 000
		(Transfer of application money into a general cash account)		

To complete the process, the balance remaining in the Application account is now regarded as the equity of the shareholders in the company. Hence, the balance is transferred to the Share Capital account, as shown below.



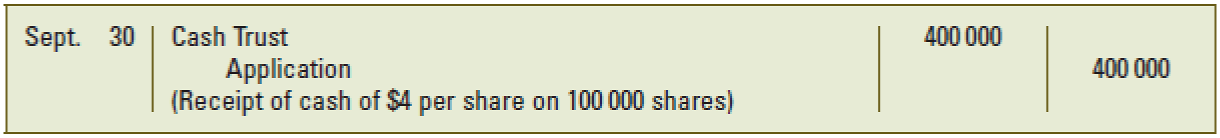
Oct.	1	Application	1 000 000	
		Share Capital		1 000 000
		(Funds contributed for 100 000 shares paid in full)		

Public share issue, payable by instalments

Alternatively, a company may decide to issue its shares on an instalment basis. Such a practice has become rare. Nevertheless, the practice is still available under the Act. Assume, for example, that Brazil Ltd decides on 15 September to issue 100 000 shares, payable in three instalments:

$4 initially on application,
then $3 payable on 15 October after allotment of shares,
and $3 payable on 1 December.

Assuming that, by 30 September, Brazil Ltd received application forms for a total of 100 000 shares, receiving $4 per share, the following entry is made:



Sept.	30	Cash Trust	400 000	
		Application		400 000
		(Receipt of cash of $4 per share on 100 000 shares)		

As in the previous case, if applications are received in excess of the 100 000 shares, the directors will refund this excess money out of the Cash Trust account by reversing the above entry for the amount of the refund. Also, as before, once the directors have allotted the shares on

1 October, the amount of money paid in by successful applicants is transferred from the Cash Trust account to the Cash at Bank account, and the following entry is made (in general journal format):

Oct.	1	Cash at Bank	400 000	
		Cash Trust		400 000
		(Transfer of application money into a general cash account)		

Both the Application account and an **Allotment** account can be set up to record the amounts of money now due and receivable from the shareholders after the shares have been allotted. The entries necessary are:

Oct.	1	Application	400 000	
		Share Capital		400 000
		(Application fee of $4 on 100 000 shares allotted)		
Oct.	1	Allotment	300 000	
		Share Capital		300 000
		(Allotment fee of $3 receivable on 100 000 shares allotted)		

The debit to the Application account closes that account since money due has already been received when applicants forwarded their application forms to the company. The debit to the Allotment account represents the amount due and receivable from those applicants who have been allotted shares, i.e. $3 on 100 000 shares. The credit to the Share Capital account in both journal entries recognises the fact that $7 ($4 + $3) has now been called up, and therefore constitutes the called-up capital of the company.

When the cash is received on 15 October for allotment money, the entry is:

Oct.	15	Cash at Bank	300 000	
		Allotment		300 000
		(Cash received on allotment)		

The Allotment account thus contains initially the balance of money receivable from the successful applicants on allotment of shares. On receipt of the money, the Allotment account is credited. At this stage, the share capital of the company consists of:

100 000 ordinary shares called and paid to $7	$700 000

Further amounts receivable on these shares can be called by the company as and when needed or in accordance with agreements set out in the prospectus. The directors are said to make a call on the shareholders. If the company makes a call of $3 per share on 15 November, the following entry is passed:

Nov.	15	Call	300 000	
		Share Capital		300 000
		(Call of $3 per share on 100 000 shares)		

The Call account is debited for the amount due to be received from shareholders in relation to the call. Share Capital is increased by a further $3 per share, to give a balance in the account of $1 000 000, since all money has now been called on the shares. Assuming that cash is received on 95 000 shares, the company makes the entry:

Dec.	1	Cash at Bank	285 000	
		Call		285 000
		(Receipt of call money on 95 000 shares)		

This means there is a debit balance of $15 000 left in the Call account, representing the calls unpaid by shareholders. These calls are sometimes referred to as ***calls in arrears*** when they are overdue. In order to determine the actual amount of capital paid in by shareholders, the balance of the Call account is deducted from Share Capital, to give the amount of capital received from shareholders, as reported in the company's balance sheet/statement of financial position:

Share capital (100 000 ordinary shares called to $10)	$1 000 000
Less: Unpaid calls (5000 shares @ $3)	15 000
Total share capital	$ 985 000

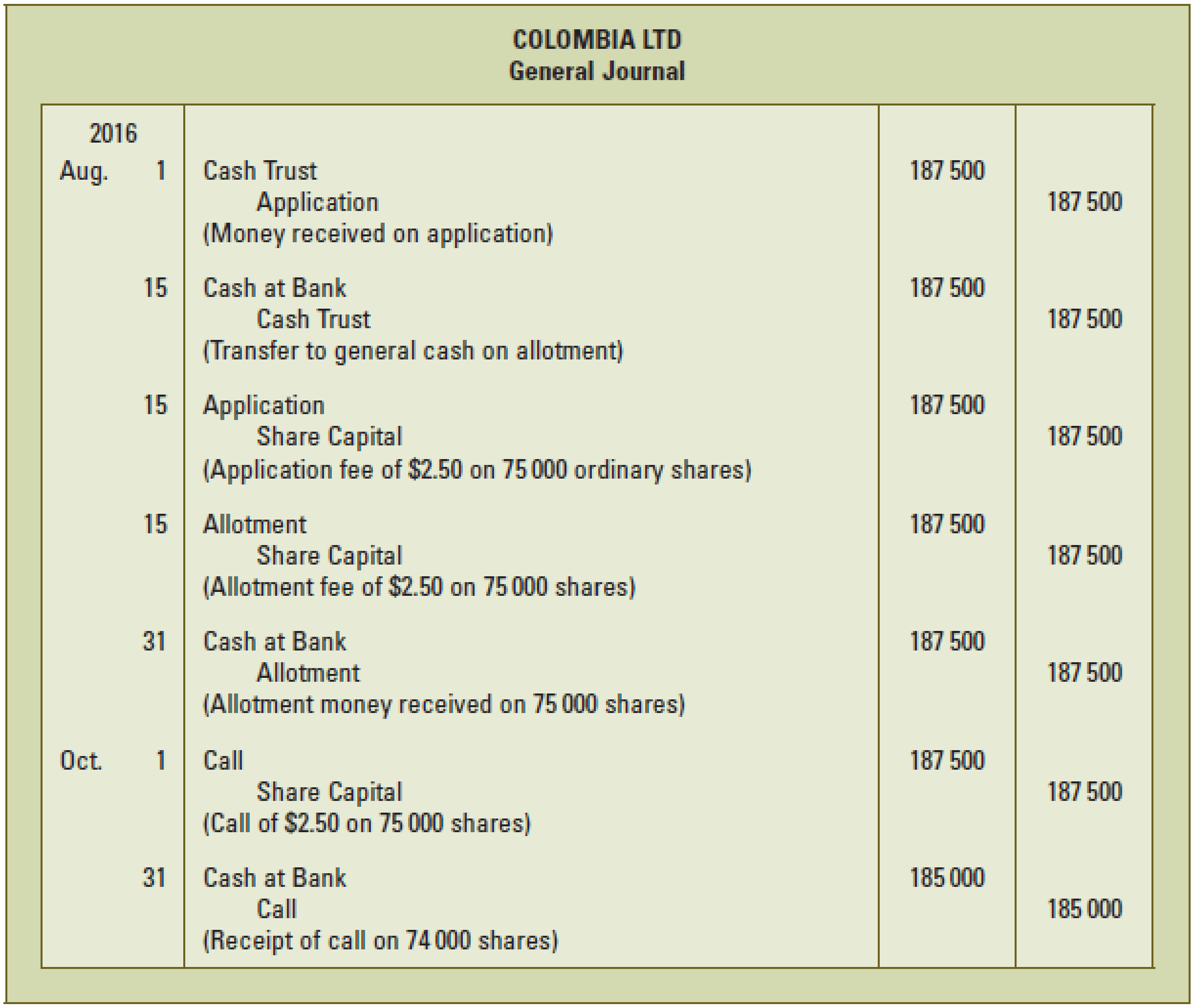
Note that all these transactions are exempt from GST. An example to illustrate all steps discussed so far is presented below.

Example

Colombia Ltd was incorporated on 1 July 2016. On this day a prospectus was issued calling for applications for 75 000 ordinary shares at an issue price of $7.50, payable $2.50 per share on application, $2.50 per share on allotment and the balance in calls as required.

Applications closed on 1 August 2016 with the receipt by the company of $187 500, representing 75 000 shares at $2.50 each. The shares were allotted on 15 August 2016. All allotment money was received by 31 August. A call of $2.50 per share was made on 1 October 2016. All call money except that payable on 1000 shares was received by 31 October 2016.

The journal entries in general journal form and general ledger accounts in respect of the above transactions are shown below, as well as a balance sheet/statement of financial position showing in detail the equity as at 31 October 2016.



COLOMBIA LTD
General Journal

2016			
Aug. 1	Cash Trust Application (Money received on application)	187 500	 187 500
15	Cash at Bank Cash Trust (Transfer to general cash on allotment)	187 500	 187 500
15	Application Share Capital (Application fee of $2.50 on 75 000 ordinary shares)	187 500	 187 500
15	Allotment Share Capital (Allotment fee of $2.50 on 75 000 shares)	187 500	 187 500
31	Cash at Bank Allotment (Allotment money received on 75 000 shares)	187 500	 187 500
Oct. 1	Call Share Capital (Call of $2.50 on 75 000 shares)	187 500	 187 500
31	Cash at Bank Call (Receipt of call on 74 000 shares)	185 000	 185 000

General Ledger

Share Capital

			15/8	Application	187 500
			15/8	Allotment	187 500
31/10	Balance c/d	562 500	1/10	Call	187 500
		562 500			562 500
			31/10	Balance b/d	562 500

Application

15/8	Share Capital	187 500	1/8	Cash Trust	187 500

Allotment

15/8	Share Capital	187 500	31/8	Cash at Bank	187 500

Call

1/10	Share Capital	187 500	31/10	Cash at Bank	185 000
			31/10	Balance c/d	2 500
		187 500			187 500
31/10	Balance b/d	2 500			

Cash Trust

1/8	Application	187 500	15/8	Cash at Bank	187 500

Cash at Bank

15/8	Cash Trust	187 500			
31/8	Allotment	187 500			
31/10	Call	185 000	31/10	Balance c/d	560 000
		560 000			560 000
31/10	Balance b/d	560 000			

COLOMBIA LTD
Balance Sheet
as at 31 October 2016

EQUITY	$562 500
Share capital (75 000 shares at $7.50 per share)	2 500
Less: Unpaid calls (1 000 shares at $2.50 per share)	$560 000
ASSETS	$560 000
Cash at bank	

Undersubscription and oversubscription

Undersubscription

If there are applications for fewer shares than the company would like to issue, i.e. the issue is undersubscribed but above the minimum subscription, the directors may simply issue the number of shares applied for by allocating them to applicants. Journal entries necessary are as per those shown previously ***for the actual number of shares being issued***.

In order to avoid the possibility of undersubscription, it is common for a company to appoint an underwriter to any public share issue. The role of the **underwriter** is to take up any shares that are undersubscribed in any share issue. For this service, the underwriter charges an underwriting fee, which must be paid by the company even if the issue is fully subscribed or oversubscribed. The underwriter's fee is regarded as part of share issue costs, the accounting treatment of which is discussed later in this chapter.

Oversubscription

In many cases a public issue is oversubscribed, i.e. the company receives more than the required number of applications for its shares. The treatment of excess application money depends on the company's constitution and the terms of the prospectus. It is common for a company to have the right to retain excess application money to satisfy allotment and future calls when they fall due. If the amount paid in exceeds the issue price of the shares allotted to a shareholder, the excess is refunded to that shareholder.

For example, assume that on 15 September Brazil Ltd invited applications for 100 000 shares on the following terms:

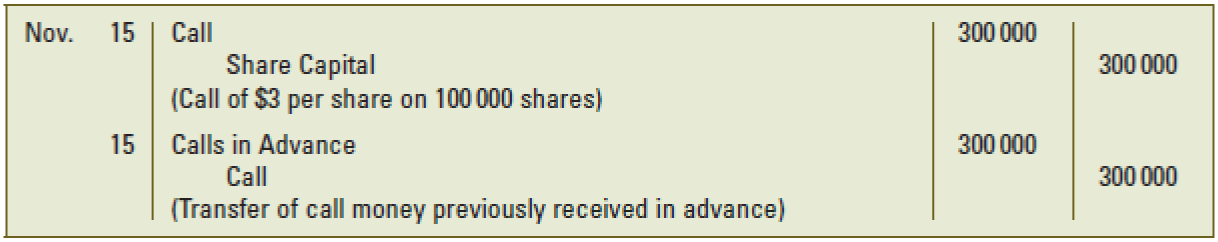
$4 payable on application
$3 payable on allotment due on 15 October
$3 payable on call

Assume as well that applications were received for 300 000 shares and the directors decide to allot shares on a proportional basis, i.e. each applicant receives 1 share for every 3 applied for. Assume that the company has the power in its constitution to retain excess application money to satisfy future amounts payable on allotment and calls. If there is any surplus money that cannot be so retained, it must be refunded to the applicants before the money is available for general use by the company.

The journal entries (in general journal form) to record the issue of the shares by Brazil Ltd are:

Sept.	20	Cash Trust	1 200 000	
		Application		1 200 000
		(Receipt of $4 application money on 300 000 shares)		
Oct.	1	Application	400 000	
		Share Capital		400 000
		(Application of $4 per share)		
	1	Allotment	300 000	
		Share Capital		300 000
		(Allotment of $3 per share on 100 000 shares)		
	1	Application	800 000	
		Allotment		300 000
		Calls in Advance		300 000
		Cash Trust		200 000
		(Transfer of excess money on application to allotment, to calls in advance, and to refund surplus money)		
	1	Cash at Bank	1 000 000	
		Cash Trust		1 000 000
		(Transfer of money held in trust to general funds)		

Note that the Allotment account is closed in this case because all money has been received. The Calls in Advance account represents funds retained by the company in anticipation of the future call to be made on those shares. When the call is made on 15 November, the following entries are made:



Nov.	15	Call Share Capital (Call of $3 per share on 100 000 shares)	300 000	 300 000
	15	Calls in Advance Call (Transfer of call money previously received in advance)	300 000	 300 000

Any balance in the Calls in Advance account at the end of the reporting period should be reported in the balance sheet as a separate item of equity, as shown below:

EQUITY	
Share capital	$x
Reserves	x
Calls in advance	x
Total equity	$x

Rights issue of shares

Another common method of raising equity is by way of a **rights issue**, which is an issue of new shares giving existing shareholders the right to an additional number of shares in proportion to their current shareholdings. If all the existing shareholders exercise their rights and take up the new shares, there is no change in each shareholder's percentage ownership interest in the company. Rights issues may be 'renounceable' or 'non-renounceable'. If renounceable, existing shareholders have three options.

1. They may exercise their rights and acquire more shares in the company.
2. They may decline to exercise the rights and let them lapse.
3. They may sell their rights on a stock exchange and allow other investors to acquire the company's shares.

If the rights issue is non-renounceable, shareholders are not allowed to sell their rights and must accept or reject the offer to acquire new shares in the company.

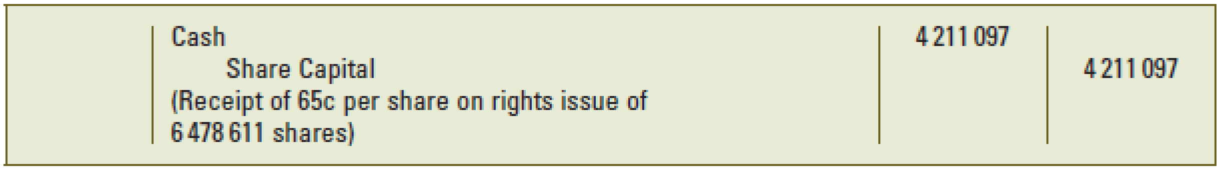
In offering the shares to existing shareholders, the company sets an issue price — this is often below the current market price of the company's shares in order to encourage shareholders to exercise their rights.

A major difference between an issue of shares to the public and a rights issue is that with the former, the offer comes from the applicant (the prospective shareholder) and it is for the company to accept or reject the offer. With a rights issue, the letter from the company to the shareholders informing them of their rights constitutes an offer. The acceptance by the shareholders of this offer seals the contract. The point of acceptance of the offer is then the point of allotment of the shares. As no money is received by the company before the allotment, there is no need for the company to raise a Cash Trust account.

To illustrate a rights issue, consider the information below, based on an actual case:

> Mexico Ltd planned to raise $4.2 million from existing shareholders through a renounceable 1-for-6 rights issue. The aim of the issue was to make the company financially stronger and to ensure future growth. The terms of the issue were: 6 478 611 shares to be issued at 65c each. At date of issue, the market price of the company's shares was 80c per share.

Assuming that the issue is fully subscribed, the journal entry to record the issue is illustrated below:



Cash Share Capital (Receipt of 65c per share on rights issue of 6 478 611 shares)	4 211 097	 4 211 097

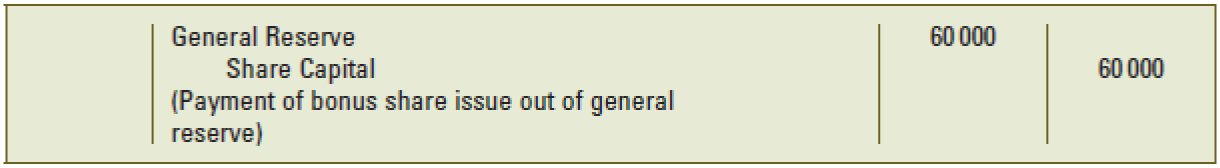
Bonus share issues

A **bonus share issue** is an issue of shares to existing shareholders in the proportion of their current shareholdings at no cost to the shareholders. The company uses one or more of its reserve balances (including retained earnings) to make the issue. For example, 5 bonus shares may be issued for every 100 shares presently held by shareholders. Several reasons have been advanced for issuing bonus shares:

- to provide a ‘return’ to shareholders without any cash outlays, thus protecting the company’s current liquidity
- to capitalise the reserves of a company by converting such items into share capital

- to signal to the capital market that the company expects good future profitability levels for future cash dividends per share, as the number of shares issued increases under a bonus share issue.

Assuming that a bonus share issue of $60 000 is declared and paid out of a general reserve, the necessary accounting entry is:



	General Reserve	60 000	
	Share Capital		60 000
	(Payment of bonus share issue out of general reserve)		

Bonus shares can be issued out of any reserve, including retained earnings. When a bonus issue is made out of retained earnings, it is sometimes referred to as a ‘share dividend’.

Formation costs and share issue costs

The costs incurred in forming a company and that are paid from company assets are often called **preliminary expenses** or **start-up costs**. These include the registration fee, legal and accounting fees, and various other expenditures needed to establish the company. (GST may be payable on some of these costs.) In the past, it was common to treat such costs as non-current assets and amortise them over an arbitrary number of years, e.g. 20 years. However, this practice was questionable, as it was difficult to understand where the future economic benefits lay in some of these expenditures. Under current accounting standards, preliminary expenses cannot be treated as an asset, and must be written off to expense.

Share issue costs include stamp duty, broker’s fees, underwriter’s fees and professional adviser’s fees, as well as printing costs associated with the issue of shares. Accounting standards argue that such costs should not be treated as either an asset or an expense. Instead, the standards regard these costs as a deduction from the equity of the entity. The issue of shares and the cost of such issue are regarded as one transaction. Therefore, whenever shares are issued, the amount credited to Share Capital is the gross proceeds received from the issue, less the applicable share issue costs. In other words, share issue costs result in a debit to Share Capital and a credit to Cash at Bank.

Preference shares

In addition to **ordinary shares**, many companies issue one or more types of preference shares. **Preference shares** are so called because shareholders receive preferential treatment over ordinary shareholders in one or more respects. Preference shareholders usually receive only a fixed rate of dividend, commonly expressed as a number of cents per share or as a percentage of the issued preference capital, and normally do not have a right to participate in any distribution of surplus profits made by the company. Consequently, if the company lists its preference shares on the stock exchange, the profit-making potential of these shares generally is less attractive than that of ordinary shares. Further discussion of the rights of preference shareholders in relation to dividends is provided later in the chapter.

In contrast, ordinary share capital is the residual equity in a company, which means that ordinary shareholders are commonly the last to receive asset distributions if the company is wound up. Ordinary shareholders take a greater risk of loss if the company is unsuccessful, but also have a greater potential for gain if the company is profitable. As a result, the market value of ordinary shares is closely related to profitability and increases or decreases as shareholders’ expectations about future profits rise and fall.

Preference shareholders are normally given several preferences over ordinary shareholders. The most common is preference as to dividend distributions. Also, depending on the constitution of the company, they may receive preferential treatment as to distribution of assets on liquidation. In addition, preference capital is often redeemable at the option of the company and sometimes is convertible into ordinary shares. In exchange for these rights, preference shareholders normally relinquish the right to vote. Rights and other special features of preference shares vary widely and should be considered carefully because, under IAS 32/AASB 132 ***Financial Instruments: Presentation***, certain preference shares may need to be classified as liabilities rather than as equity in external financial statements. The constitution must be read carefully to determine specific provisions applicable to preference shares.

The accounting treatment for the equity issue of preference shares is the same as that for ordinary shares. It is a common practice to have separate Share Capital, Application, Allotment and Call accounts for each class of share.

BUSINESS KNOWLEDGE

Fickle nickel takes its toll on market darling Mirabela

Mirabela Nickel once rode the commodities boom, hitting a share price peak of more than $7 in early 2008, but a perfect storm of low prices, debt, decreasing cash balances and a cancelled contract has seen the company join the ranks of the penny dreadfuls. Some 80 per cent has been wiped off the value of its share price in the last month alone — from an already low base.

This is a company that was valued by the market at about $800 million in 2008. Now? $14m. The price of a decent shack on Sydney’s waterfront.

Perth-based Mirabela this week became the latest high-profile casualty of a commodity that has been struggling more than most others.

Perth-based private equity firm Resource Capital Fund is Mirabela’s largest shareholder and is the hardest hit by the share price fall. The resources-focused fund stepped in to support the company last May, tipping in $20m at a share price of 40c, which at the time was at a 17.6 per cent premium to the junior’s share price. It also underwrote a $100m raising. The miner said at the time that the funds would strengthen its balance sheet.

Mirabela joined the Australian market in July 2004 with a listing price of 20c and it was hailed as a stock to watch, given the size of its Santa Rita nickel sulphide mine in Brazil.

Even before first production in November 2009, it was in favour with investors, and hit a share price high of $7.43 in May 2008. The share price of the junior nickel miner has been in free fall over the past week, and it dipped to a low of 0.8c during trading on Thursday. It recovered ground yesterday and — such are the absurdities of percentages — it can boast a ‘stunning’ 60 per cent rebound yesterday to close the day at 1.6c, up 0.6c.

Source: Tasker, S 2013, ‘Fickle nickel takes its toll on market darling Mirabela’, ***The Australian***, 5 October.

LEARNING CHECK

☐ In a private share placement, and in a rights issue, the only equity account used is the Share Capital account, whereas in a public share issue, additional accounts used are Application, Allotment and Call (if payable by instalments). Also in a public share issue, a Cash Trust account must be used to hold all cash received until shares are allotted to applicants.

☐ If a public share issue is undersubscribed, provided the minimum subscription is achieved the company can issue only the shares applied for. To avoid undersubscription, a company often appoints an underwriter to the share issue.

☐ If a public issue is oversubscribed, shares may be allotted to applicants as directors see fit. Commonly, shares are allocated to applicants on a pro rata basis, and excess money may be refunded to unsuccessful applicants.

☐ A Calls in Advance account records money received from shareholders in advance of the call being made. The Calls in Advance account appears in a balance sheet as a separate category of equity.

- The costs of forming the company should be regarded as an expense, and the costs of issuing a company's equity securities are to be treated as a reduction of the Share Capital account.

9.5 Dividends

LO 5 Account for the declaration and payment of cash dividends on shares, share dividends and share splits.

The nature of dividends and their accounting treatment were introduced very briefly in chapter 5. We now provide a more complete discussion of the appropriate treatment of the payment of dividends, and amend some aspects of the coverage in chapter 5.

Dividends are simply a distribution of cash or other assets, or of a company's own shares, to its shareholders. Cash dividends are the most common. The legal requirements in the Corporations Act (as amended in 2010) specify that a company must not pay a dividend unless:

(a) the company's assets exceed its liabilities immediately before the dividend is declared and the excess is sufficient for the payment of the dividend

(b) the payment of the dividend is fair and reasonable to the company's shareholders as a whole, and

(c) the payment of the dividend does not materially prejudice the company's ability to pay its creditors. The payment of a dividend is considered to materially prejudice the company's ability to pay its creditors if the company becomes insolvent as a result of the payment.

Assets and liabilities in (a) above are to be calculated in accordance with accounting standards in force at the relevant time.

In essence, the Act uses a solvency test for the payment of dividends whereas, in the past, a 'profits' test was used, i.e. dividends could only be paid out of 'profits'. Under the new approach adopted in June 2010, it appears that dividends can now be paid out of capital as well as out of retained earnings or other reserves. There seems to be little point, therefore, in making a distinction between classes of equity in a corporate entity, and the use of one account for all equity, similar to that in a sole trader entity, appears suitable.

In terms of the declaration and payment of dividends, the Act also includes a replaceable rule, which specifies that the directors may determine that a dividend is payable, and fix:

- the amount
- the time for payment
- the method of payment.

The replaceable rule further specifies that the methods of payment may include the payment of cash, the issue of shares, the grant of options and the transfer of assets, and that interest is not payable on a dividend.

However, a company can amend this rule in its own constitution. If a company has a constitution, it is common for the constitution to provide for the ***declaration*** of dividends by the directors. If so, the Act specifies that the company incurs a legal debt for dividends when the dividend is ***declared***. However, ***if there is no such provision in the company's constitution***, the Act states that a debt for dividends is incurred only when the time fixed for payment arrives, and the decision to pay the dividend may be revoked at any time before then. This avoids the difficulties that could arise if net assets (assets less liabilities) which were sufficient to cover the dividend when it was recommended, have diminished when the time comes to pay the dividend.

A common practice is for the constitution of companies to allow payment of two types of dividends — interim and final — although the power to declare dividends at any time rests with the directors. An interim dividend is a dividend that is declared and paid part way through the accounting period. A final dividend is payable after the end of the accounting period. It is a usual practice for the directors to recommend the payment of a final dividend, which is then disclosed by way of footnotes to the financial statements of the company at the end of the financial year. When the dividend is declared at the annual general meeting of shareholders, under the constitution, it becomes a legal debt; hence, no dividend liability can be recorded at the end of the financial year (see IAS 10/AASB 110 ***Events after the Reporting Period***). On the rare occasion that the directors ***declare*** the dividend before the end of the reporting period, i.e. there is no discretion to change the dividend, it is a legal debt, and should be recognised and reported as a liability in the balance sheet.

Therefore, it is important that, for each company, the constitution is consulted in order to determine the rights of all classes of shareholders in relation to dividends. It is common for a company's constitution to allow for the issue of both preference and ordinary shares, and for preference shareholders to have special rights for the payment of dividends. These special rights must be followed carefully.

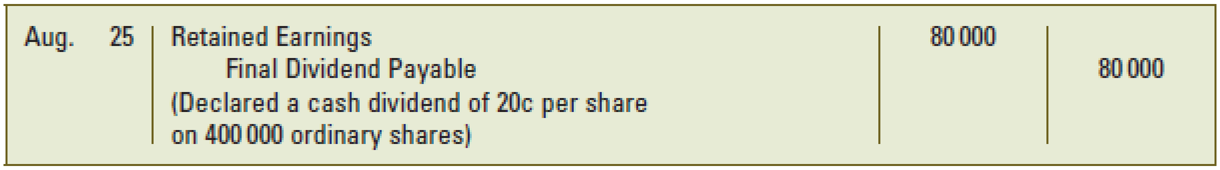
A dividend is usually expressed as a certain amount of money (cents) per share. For example, if a dividend of 18c per share is declared, then a shareholder with 1000 fully paid shares will receive a dividend of $180. Partly paid shares in listed companies receive their appropriate portion of the dividend. On occasions, dividends may be expressed as a percentage of the company's share capital; for example, if a final dividend of 10% is recommended, this means that the directors are recommending a dividend of 10% of the company's share capital to be paid. The practice of expressing dividends as a percentage is more common with preference shares.

Cash dividends

Cash dividends are normally stated as so many cents per share, and may consist of both interim and final dividends. A company's shareholders may change if the shares are traded on the stock market. To ensure that dividends are paid to the rightful owner of the shares, dividends are often declared on one date and are payable on some future date to shareholders on the register at a particular date between the declaration date and the payment date.

To illustrate, assume that on 25 August (the declaration date) the company at its annual general meeting declared a 20c per share final dividend on 400 000 ordinary shares, fully paid at $1, to be paid on 20 September (the payment date) to shareholders on the register on 10 September. (Note that investors buying shares between 25 August and 10 September will therefore have the ownership of their shares recorded before payment of the dividend.) The dividend is to be paid out of the retained earnings of the company.

A dividend liability account for the final dividend is recognised when it is declared. Hence, the entry for dividends is made on 25 August as follows:



Aug.	25	Retained Earnings	80 000	
		Final Dividend Payable		80 000
		(Declared a cash dividend of 20c per share on 400 000 ordinary shares)		

When the dividend becomes payable on 20 September, it is common practice in Australia to open a special dividend bank account and to deposit an amount of money in the account. All dividend cheques or electronic transfers, when paid by the bank, are taken out of that special account.

For our purposes, however, it is sufficient to record (in general journal form) ***payment*** of the final dividend as:

Sept.	20	Final Dividend Payable	80 000	
		Cash at Bank		80 000
		(Payment of the dividend declared on 25 August)		

No entry is required on 10 September because that date is used only to determine the owners of the shares who are to receive the dividends.

Companies that normally declare interim dividends would debit an equity account and credit Interim Dividend Payable. If a company declares dividends on both ordinary and preference shares, it should use a separate Dividend Payable account for each type of share. The net effect of a cash dividend is to reduce both the Equity and Cash at Bank accounts for the amount of the dividend.

Preference dividends

If a company has preference shares as permitted by its constitution, the preference shareholders are entitled usually to some specified dividend before any dividend is paid to ordinary shareholders. The annual preference dividend is usually stated either as an amount of cents per share or as a percentage of the preference share capital. Because the obligation to pay a dividend arises only if one is declared, preference shareholders are not assured of receiving a dividend each year.

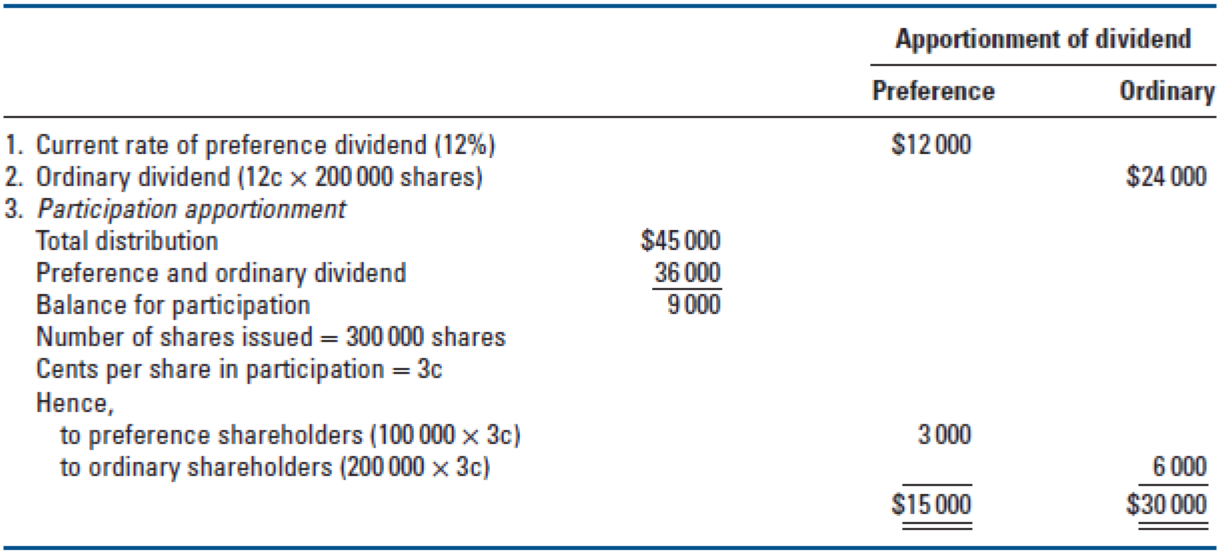
Although dividends must be paid on preference shares before any are paid on ordinary shares, the directors may decide not to declare a dividend on either preference or ordinary shares because the company has an insufficient amount of net assets, i.e. assets minus liabilities. In the constitutions of some companies, the dividend on preference shares may be cumulative, which means that undeclared dividends accumulate, and the accumulated amount plus the current year's preference dividend must be paid before any dividend can be paid to ordinary shareholders. Dividends on **cumulative preference shares** that are not declared in the year they are due are called **dividends in arrears**. Disclosure of arrears of dividends is generally made in a footnote to the financial statements.

To illustrate cumulative dividends, assume that a company has previously issued 500 000 10% cumulative preference shares fully paid at $1, on which no dividends were declared in the preceding year. In addition, assume there are 100 000 ordinary shares issued and fully paid for $1. If the company declares a $200 000 dividend, it will be distributed to preference and ordinary shareholders as follows:

	Preference	**Ordinary**
Dividends in arrears ($500 000 × 10%)	$ 50 000	
Current year's dividend	50 000	$100 000
	$100 000	$100 000

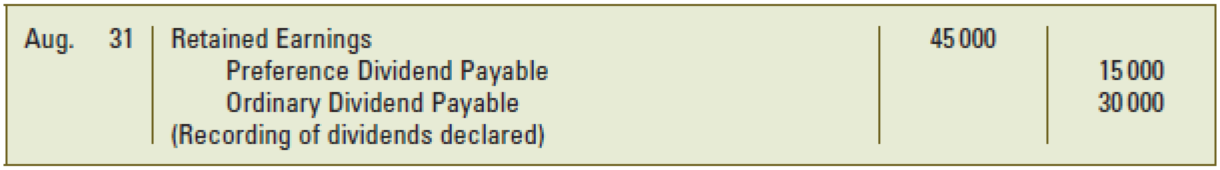
If the company declares a dividend of only $80 000, it will all be distributed to preference shareholders; ordinary shareholders will receive no dividends, and dividends in arrears on preference shares will still exist for the amount of $20 000. If preference shares are **non-cumulative**, any undeclared dividends at the end of any year are lost.

A further right that preference shareholders may have under the company's constitution is that of participating in extra dividends once a certain level of dividends has been paid to ordinary shareholders. **Participating preference shares** have the right to receive further dividends above their fixed rate once ordinary shares have received a dividend up to a stated percentage. To illustrate participating preference dividends, assume a company has issued 200 000 ordinary shares for $1 and 100 000 12% preference shares for $1, all shares being fully paid. Assume that on 31 August the company declares a total dividend of $45 000 at the annual general meeting, and that preference shares are entitled to participate in further dividends once ordinary shares have received 12 cents per share. The dividends are apportioned as shown below.



		Apportionment of dividend	
		Preference	Ordinary
1. Current rate of preference dividend (12%)		$12 000	
2. Ordinary dividend (12c × 200 000 shares)			$24 000
3. *Participation apportionment*			
Total distribution	$45 000		
Preference and ordinary dividend	36 000		
Balance for participation	9 000		
Number of shares issued = 300 000 shares			
Cents per share in participation = 3c			
Hence,			
to preference shareholders (100 000 × 3c)		3 000	
to ordinary shareholders (200 000 × 3c)			6 000
		$15 000	$30 000

Thus assuming that the dividend is paid out of the company's retained earnings, the following entry is made to record the dividends payable:



Aug.	31	Retained Earnings	45 000	
		Preference Dividend Payable		15 000
		Ordinary Dividend Payable		30 000
		(Recording of dividends declared)		

The dividend payable accounts are reported as current liabilities in the company's balance sheet until paid.

Share dividends

A **share dividend** is a pro rata distribution of additional shares by a company to its shareholders, normally consisting of the distribution of additional ordinary shares to ordinary shareholders. Share dividends should be distinguished from cash dividends.

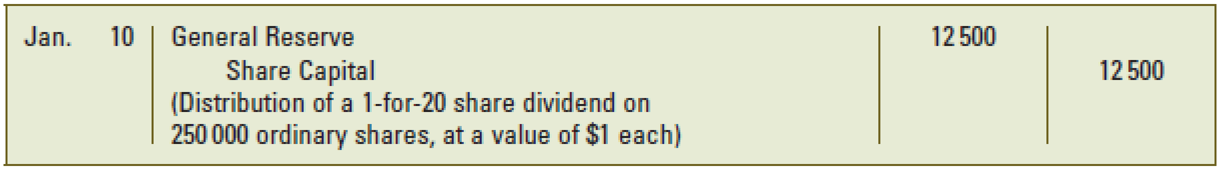
Unlike cash dividends, which reduce corporate assets and equity, share dividends have no effect on corporate assets or on total equity. The only effect of a share dividend is a transfer of retained earnings or other reserves to contributed share capital. Share dividends often are declared by successful companies that have used their profitable resources to expand operations. These companies use their earnings received in cash to acquire additional plant and equipment in order to grow and therefore generally declare only minimal cash dividends. The declaration of a share dividend gives shareholders some additional shares as evidence of the increase in their equity in the company, without distributing cash or other assets to them. However, in effect, shareholders receive nothing more than the equity they already have.

Another reason for issuing share dividends is to reduce the market price of the shares by increasing the number of shares issued. When a company grows, the market price of its shares tends to increase. By reducing the market price of its shares, a company can encourage a broader ownership by both small and large investors. To accomplish this, the share dividend must be a relatively large one. Alternatively, the company may undertake a share split (discussed in the next section).

When share dividends are declared and paid, retained earnings or other reserves are transferred to share capital. The accounting impact of a share dividend is essentially the same as a bonus share issue. To illustrate, assume that a company has the following equity on 20 December:

Equity	
Share capital: 250 000 ordinary shares, fully paid at $1	$250 000
General reserve	300 000
Retained earnings	400 000
	$950 000

Assume further that, on 20 December, the board of directors declares out of the general reserve a share dividend of 1 share valued at $1 for every 20 shares held, to be distributed on 10 January to shareholders registered on 31 December. The entry to record the share dividend is:



Jan.	10	General Reserve	12 500	
		Share Capital		12 500
		(Distribution of a 1-for-20 share dividend on 250 000 ordinary shares, at a value of $1 each)		

The net effect of the entry on 10 January is to decrease retained earnings by $12 500 and to increase share capital by the same amount. Thus, total equity remains unchanged by the share dividend as demonstrated below:

	Before share dividend	**After share dividend**
Ordinary share capital	$250 000	$262 500
General reserve	300 000	287 500

Retained earnings	400 000	400 000
	$950 000	$950 000

Because total equity remains unchanged, each shareholder's interest in total equity also remains unchanged. For example, assume that Paul Dean owned 25 000 shares (10%) of the company before distribution of the share dividend. His share of the equity before and after the dividend is:

$$\text{Before: } \frac{25\,000 \text{ shares}}{250\,000 \text{ shares}} = 10\% \times \$950\,000 = \$95\,000$$

$$\text{After: } \frac{26\,250 \text{ shares}}{262\,500 \text{ shares}} = 10\% \times \$950\,000 = \$95\,000$$

Instead of paying the share dividend out of the General Reserve account, the company could have paid the dividend out of a different reserve account or out of the Retained Earnings account, in which case that account would have been debited instead.

A share dividend effectively converts a company's retained earnings and/or other reserves into share capital. This conversion is often referred to as a process of ***capitalising the profits*** of the company. As mentioned above, a share dividend may also be referred to as a bonus share issue. A bonus share issue is legally regarded as a 'dividend' when it is payable from the 'profits' of the company.

Share splits

A company may want to reduce the market price of its shares in order to make the shares available to a wider range of investors. One method of accomplishing this objective is to declare a share dividend as discussed previously. An alternative is to split or subdivide its shares into shares of smaller issue price, and at the same time proportionally increase the number of issued shares. To illustrate, assume that a company's equity is as follows:

Equity	
Share capital: 250 000 ordinary shares, fully paid at $1	$250 000
General reserve	300 000
Retained earnings	400 000
	$950 000

Assume further that the ordinary shares now have a current market price of $10 per share. In order to reduce the market price, the board of directors resolves to subdivide the shares 4 for 1, which should reduce the market price per share to about $2.50. When the shares are subdivided, the number of shares is increased to 1 000 000. Share ownership statements are recalled and new share ownership statements are issued, 4 new shares being given for each share recalled.

A **share split** does not change the balance of any of the equity accounts. Share capital remains the same — at $250 000 — because there are now 1 000 000 shares with an issue price of 25c each. Thus, no entry is necessary in the general ledger for a share split.

Comparison of share dividends and share splits

Share dividends are sometimes mistakenly called share splits. Although both have the same effect on the market price of the shares — a 2-for-1 share split and a 100% share dividend both result in a doubling of the number of shares issued and a market price of about half of the previous market price — they are legally different. All share dividends result in an increase in the amount of share capital and a decrease in retained earnings or other reserves; share splits do not.

LEARNING CHECK

- ☐ A dividend is usually regarded as a distribution of profit to shareholders. It becomes a liability of the company only when it is a legal debt.

☐ Dividends on cumulative preference shares accumulate from year to year if not paid, and dividends on participating preference shares exceed the fixed percentage when ordinary shareholders are paid dividends beyond a certain level.

9.6 Reserves

LO 6 Account for the creation and reduction of the different types of reserves that are included in equity.

Reserves represent those items of equity other than capital contributed by owners. Retained earnings is one category of reserves, but many other reserves are created by transferring amounts out of the Retained Earnings account to set aside equity for particular purposes. Some reserves are created in order to comply with accounting standards. For example, if a non-current asset is revalued upwards in the company's accounts to reflect the asset's fair value, the revaluation increase is

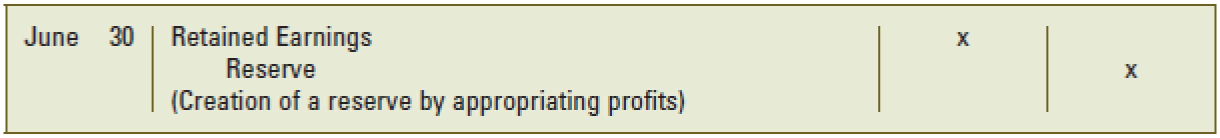
usually credited to a Revaluation Surplus account in order to comply with IAS 16/AASB 116 ***Property, Plant and Equipment***.

Reserves are not defined in Australian legislation, accounting standards or in the ***Conceptual Framework***. Since no official definition exists, companies have followed the practice of using the title 'reserve' for many different items, for example:

- general reserve
- options reserve
- plant replacement reserve
- currency fluctuation reserve.

Creation of reserves

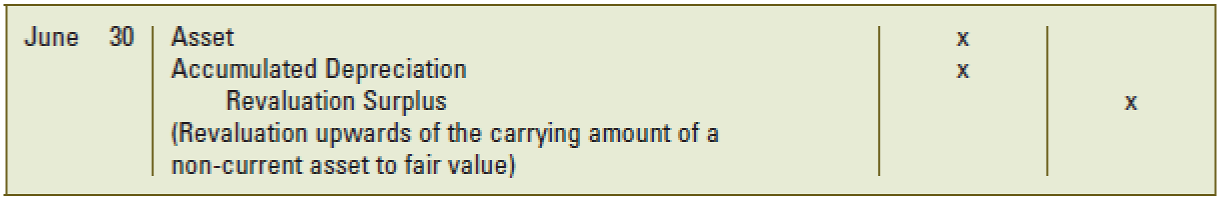
The creation of (or transfer to) reserves in the accounting records is generally a simple matter. The basic journal entry format is:



June	30	Retained Earnings	x	
		Reserve		x
		(Creation of a reserve by appropriating profits)		

For example, a general reserve (created for no specific purpose) is established by debiting Retained Earnings and crediting General Reserve. Transfers to reserves of this type are simply regarded as appropriations of profit. They do not affect expenses.

When non-current assets are revalued upwards, the creation of a revaluation surplus is achieved by the following entry:



June	30	Asset	x	
		Accumulated Depreciation	x	
		Revaluation Surplus		x
		(Revaluation upwards of the carrying amount of a non-current asset to fair value)		

Notice that it is the carrying amount of the non-current asset that is revalued when the surplus is created. Any accumulated depreciation on the asset is written back against that asset and the Revaluation Surplus account is credited for the revaluation increase. The revaluation surplus is classified in equity as a reserve. The treatment of revalued non-current assets is expanded in a later chapter.

Disposal of reserves

Reserve accounts (including the revaluation surplus) may be written off or reduced either by paying a cash dividend or share dividend from the reserve or by transferring the reserve account back to the Retained Earnings account. The general journal entry for the latter method is:

June	30	Reserve	x	
		Retained Earnings		x
		(Transfer of reserve account back to retained earnings)		

LEARNING CHECK

☐ 'Reserves' represents a category of equity other than share capital, and retained earnings are viewed as a particular type of reserve.

☐ Most reserves are created by a transfer from retained earnings, or are the results of applying an accounting standard — for example, when revaluing a non-current asset.

9.7 Income tax

LO 7 **Prepare basic entries for income tax expense in a company.**

Once a company has determined its profits for the period, a further expense for income tax must be deducted before arriving at the company's final profit after tax. Income tax payable by a company is based on the company's **taxable income** as determined under the Income Tax Assessment Act and not on the company's accounting profit. Company tax is payable in Australia, for example, either in one lump sum or in quarterly instalments, as explained later in the chapter on the statement of cash flows.

At the end of the financial year, say 30 June 2016, the company normally makes an estimate of the income tax it is likely to pay, and makes an end-of-period adjustment entry to debit the Income Tax Expense account and to credit the Current Tax Liability account. When the tax is paid, either in a lump sum or in instalments, the company then debits Current Tax Liability and credits Cash at Bank.

Normally, a company is responsible for assessing its own income tax payable. Occasionally, however, the Australian Taxation Office (ATO) may conduct an audit of the company's tax payments, and if it assesses the tax to be more than the amount provided for, an Underprovision for Income Tax account is debited and treated as an expense in the current period, and Current Tax Liability is credited until paid. Similarly, if the income tax assessed after an audit is less than the amount provided for, an Overprovision for Income Tax account is credited and treated as income in the current period.

The issue of concern here is not the determination of tax actually payable under the Act to the Tax Commissioner, but the determination and reporting of income tax expense in the company's records and financial statements. There are, theoretically, two methods of determining a company's income tax expense for inclusion in the accounts of the company: the tax payable method, and the tax-effect accounting method.

Under the **tax payable method**, income tax expense for the period is measured as being equal to the current tax liability for income tax, payable to the ATO. In other words, income tax expense is viewed as related to the taxable income determined under the Income Tax Assessment Act. However, accounting standards have rejected this approach in favour of the tax-effect accounting method, as discussed in IAS 12/AASB 112 ***Income Taxes***. In this book, only the tax payable method is used. A consideration of tax-effect accounting is found in more advanced texts.

LEARNING CHECK

☐ An end-of-period adjustment is made to record the company's income tax expense and current tax liability.

☐ An adjustment to current tax payable (overprovision or underprovision for tax) may be needed after a tax audit.

9.8 Preparing the financial statements

LO 8 **Prepare a company's income statement, statement of changes in equity and balance sheet for internal use.**

Once a company has determined all its assets, liabilities, equity (including dividends and reserves), income (including revenues) and expenses, and recognised them in its accounting records, it can prepare a set of financial statements at the end of the period in order to assess its financial performance and its financial position. This is done after all adjusting entries have been made at the end of the period, as discussed in chapter 4. Furthermore, worksheets can be prepared, as discussed in chapters 4 and 5, before preparing the financial statements. As with sole traders and partnerships, there are four main financial statements that are usually prepared:

- an income statement, (or statement of profit or loss and other comprehensive income), which shows all the relevant income (and revenues) and expenses so as to measure the company's profit performance for the period
- a statement of changes in equity, which shows movements in the company's retained earnings, other reserves and share capital for the period
- a balance sheet (or statement of financial position), which shows the company's assets, liabilities and equity on the last day of the period as a means of assessing the entity's financial position
- a statement of cash flows, showing the sources and uses of the entity's cash resources during the current period.

The following pages illustrate the first three of these financial statements for a company for ***internal*** purposes. Coverage of the statement of cash flows is provided in a later chapter.

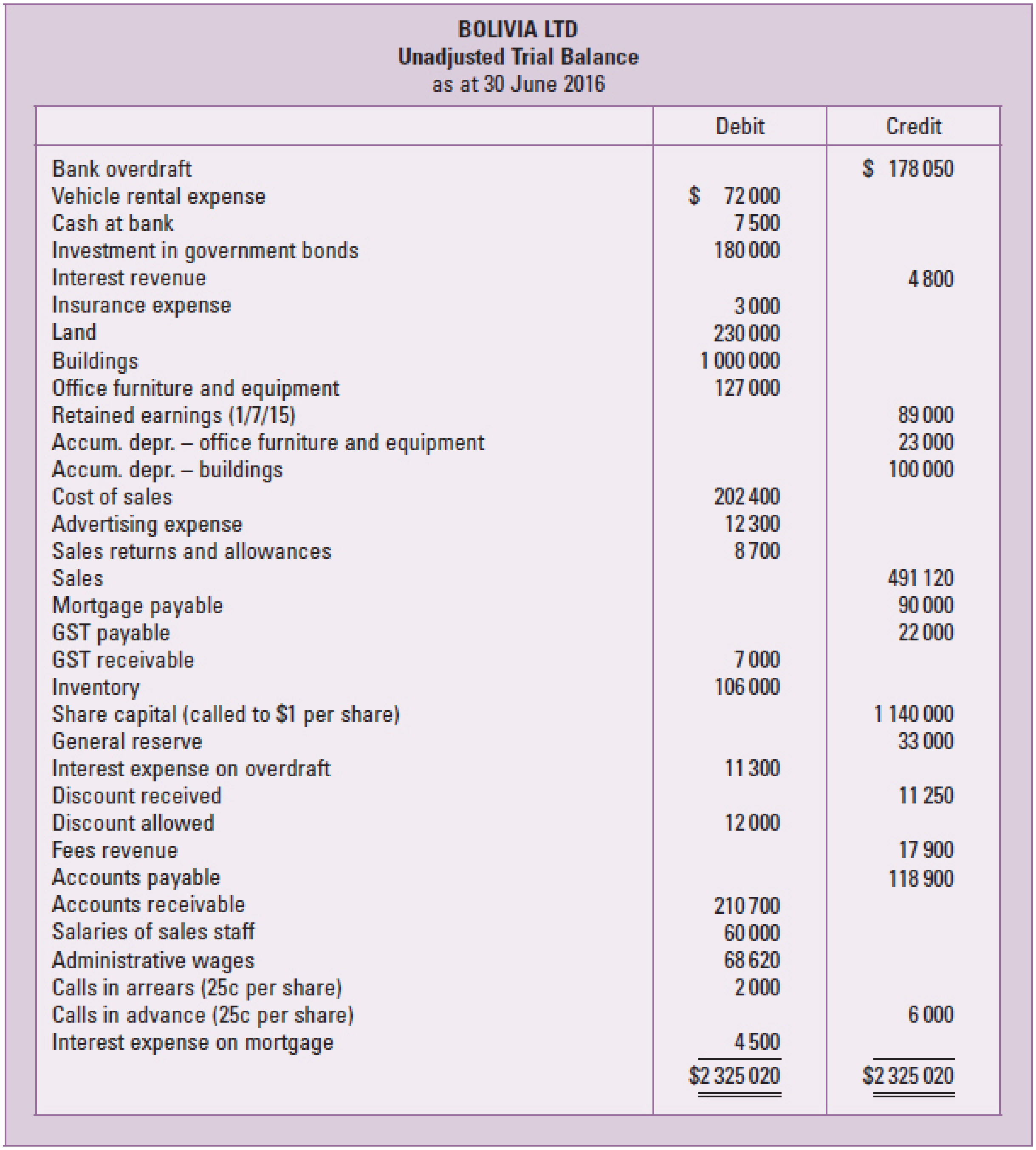
Illustrative example: Preparation of financial statements

To illustrate the preparation of an income statement, statement of changes in equity and balance sheet, the unadjusted trial balance of Bolivia Ltd is shown in figure 9.2. Several adjusting entries are required in this example as a means of revising such entries from chapter 4.

Additional information

Bolivia Ltd is involved in the computer sales and services industry. Leased vehicles are used mainly for delivery and service of computers. The company's head office, which houses its administrative staff, is located on a prime piece of real estate in the local township.

Figure 9.2 Unadjusted trial balance of Bolivia Ltd



BOLIVIA LTD
Unadjusted Trial Balance
as at 30 June 2016

	Debit	Credit
Bank overdraft		$ 178 050
Vehicle rental expense	$ 72 000	
Cash at bank	7 500	
Investment in government bonds	180 000	
Interest revenue		4 800
Insurance expense	3 000	
Land	230 000	
Buildings	1 000 000	
Office furniture and equipment	127 000	
Retained earnings (1/7/15)		89 000
Accum. depr. – office furniture and equipment		23 000
Accum. depr. – buildings		100 000
Cost of sales	202 400	
Advertising expense	12 300	
Sales returns and allowances	8 700	
Sales		491 120
Mortgage payable		90 000
GST payable		22 000
GST receivable	7 000	
Inventory	106 000	
Share capital (called to $1 per share)		1 140 000
General reserve		33 000
Interest expense on overdraft	11 300	
Discount received		11 250
Discount allowed	12 000	
Fees revenue		17 900
Accounts payable		118 900
Accounts receivable	210 700	
Salaries of sales staff	60 000	
Administrative wages	68 620	
Calls in arrears (25c per share)	2 000	
Calls in advance (25c per share)		6 000
Interest expense on mortgage	4 500	
	$2 325 020	$2 325 020

At the beginning of the year, the company's share capital consisted of 1 140 000 shares called to 75c each. During the year, the company made a call of 25c per share on all issued shares. Some shareholders paid an additional call in advance and some calls were still unpaid at the end of the year.

The following adjustments are yet to be made to the trial balance before financial statements can be prepared.

1. Depreciation to be provided on buildings at 5% p.a. and on office furniture and equipment at 10% p.a.
2. Current income tax expense (and tax liability) for the year is estimated to be $8000.
3. Accrued wages to staff: sales, $1500; administrative, $2000.
4. Vehicle rental paid in advance at 30 June 2016 amounted to $30 000.
5. A dividend of 3c per share is to be recommended on shares, out of the company's retained earnings.
6. Transfer $10 000 from the general reserve to retained earnings.

Required

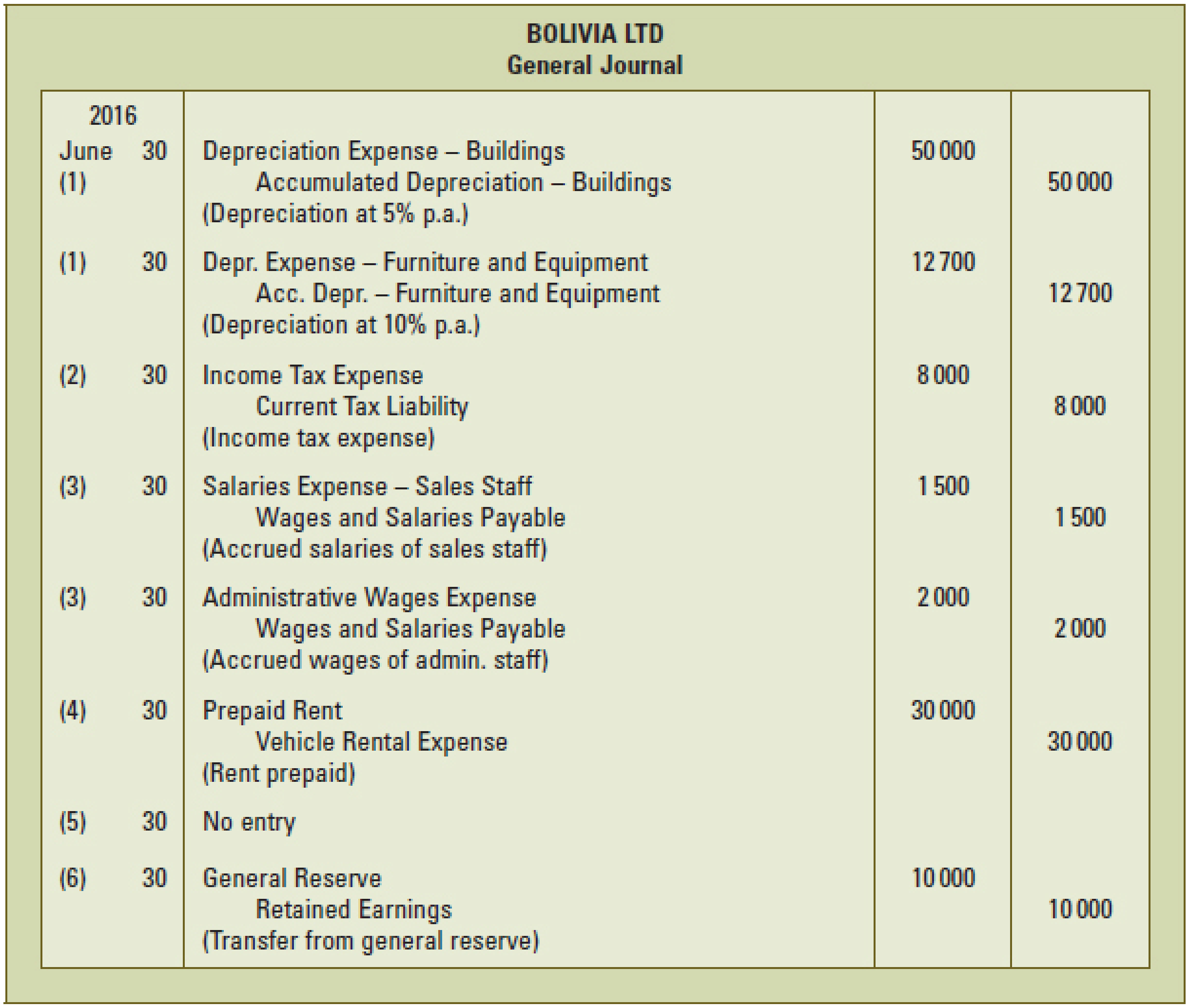
A. Prepare the journal entries (in general journal form) required by items 1 to 6 above.
B. Prepare the adjusted trial balance as at 30 June 2016.

C. Prepare the income statement, with expenses classified by function, for Bolivia Ltd for the year ended 30 June 2016.
D. Prepare the Retained Earnings account for the year. The beginning balance of Retained Earnings was $89 000. Prepare the company's statement of changes in equity for the year ended 30 June 2016.
E. Prepare the company's internal classified balance sheet as at 30 June 2016.

Solution

A. The journal entries in figure 9.3 illustrate the adjustments required before the financial statements at the end of June 2016 are prepared.

Figure 9.3 Adjusting entries for Bolivia Ltd

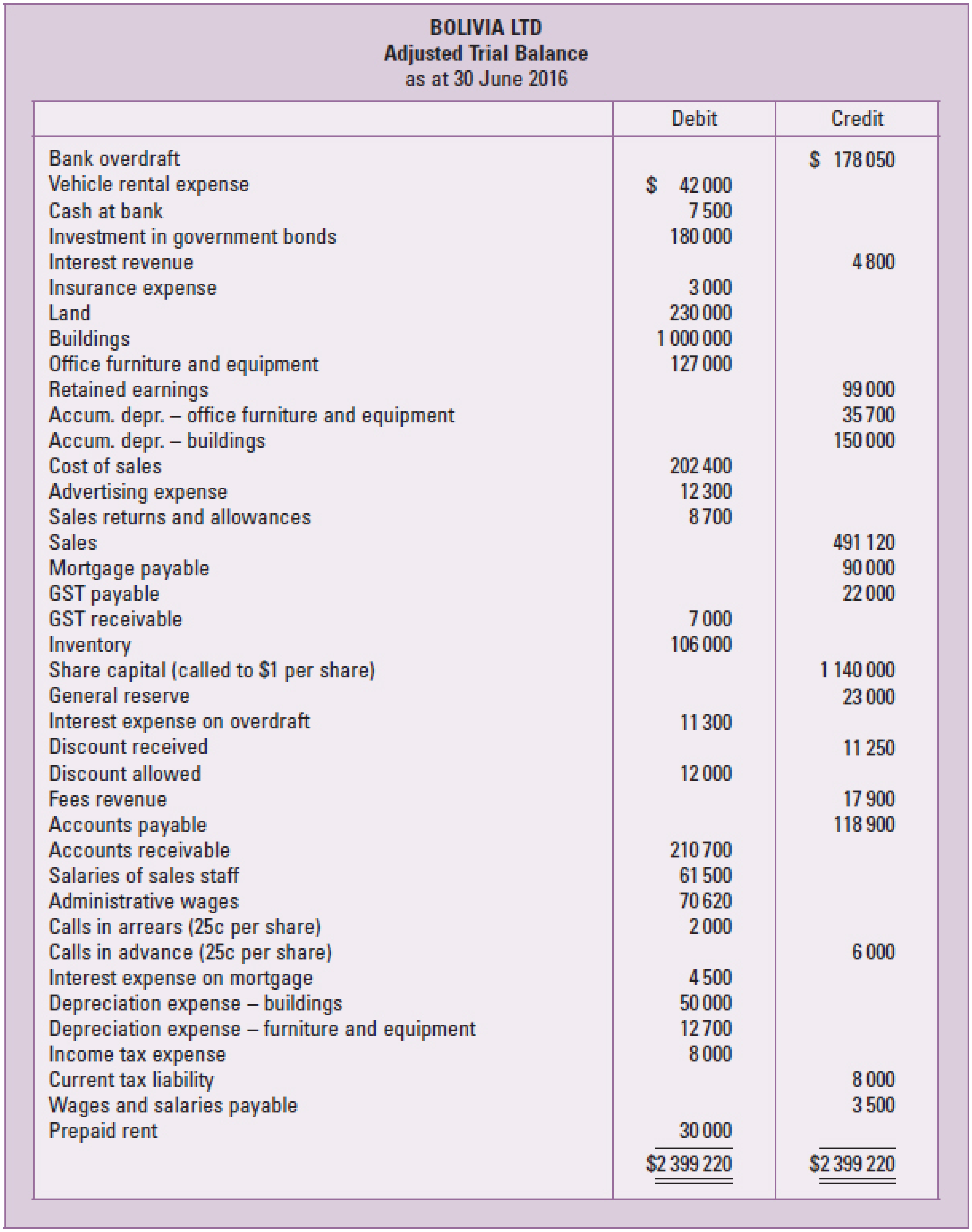


BOLIVIA LTD
General Journal

2016			
June 30	Depreciation Expense – Buildings	50 000	
(1)	Accumulated Depreciation – Buildings		50 000
	(Depreciation at 5% p.a.)		
(1) 30	Depr. Expense – Furniture and Equipment	12 700	
	Acc. Depr. – Furniture and Equipment		12 700
	(Depreciation at 10% p.a.)		
(2) 30	Income Tax Expense	8 000	
	Current Tax Liability		8 000
	(Income tax expense)		
(3) 30	Salaries Expense – Sales Staff	1 500	
	Wages and Salaries Payable		1 500
	(Accrued salaries of sales staff)		
(3) 30	Administrative Wages Expense	2 000	
	Wages and Salaries Payable		2 000
	(Accrued wages of admin. staff)		
(4) 30	Prepaid Rent	30 000	
	Vehicle Rental Expense		30 000
	(Rent prepaid)		
(5) 30	No entry		
(6) 30	General Reserve	10 000	
	Retained Earnings		10 000
	(Transfer from general reserve)		

B. After the adjusting entries are posted to the ledger of Bolivia Ltd, the adjusted trial balance of the company appears as is shown in figure 9.4.

Figure 9.4 Adjusted trial balance for Bolivia Ltd

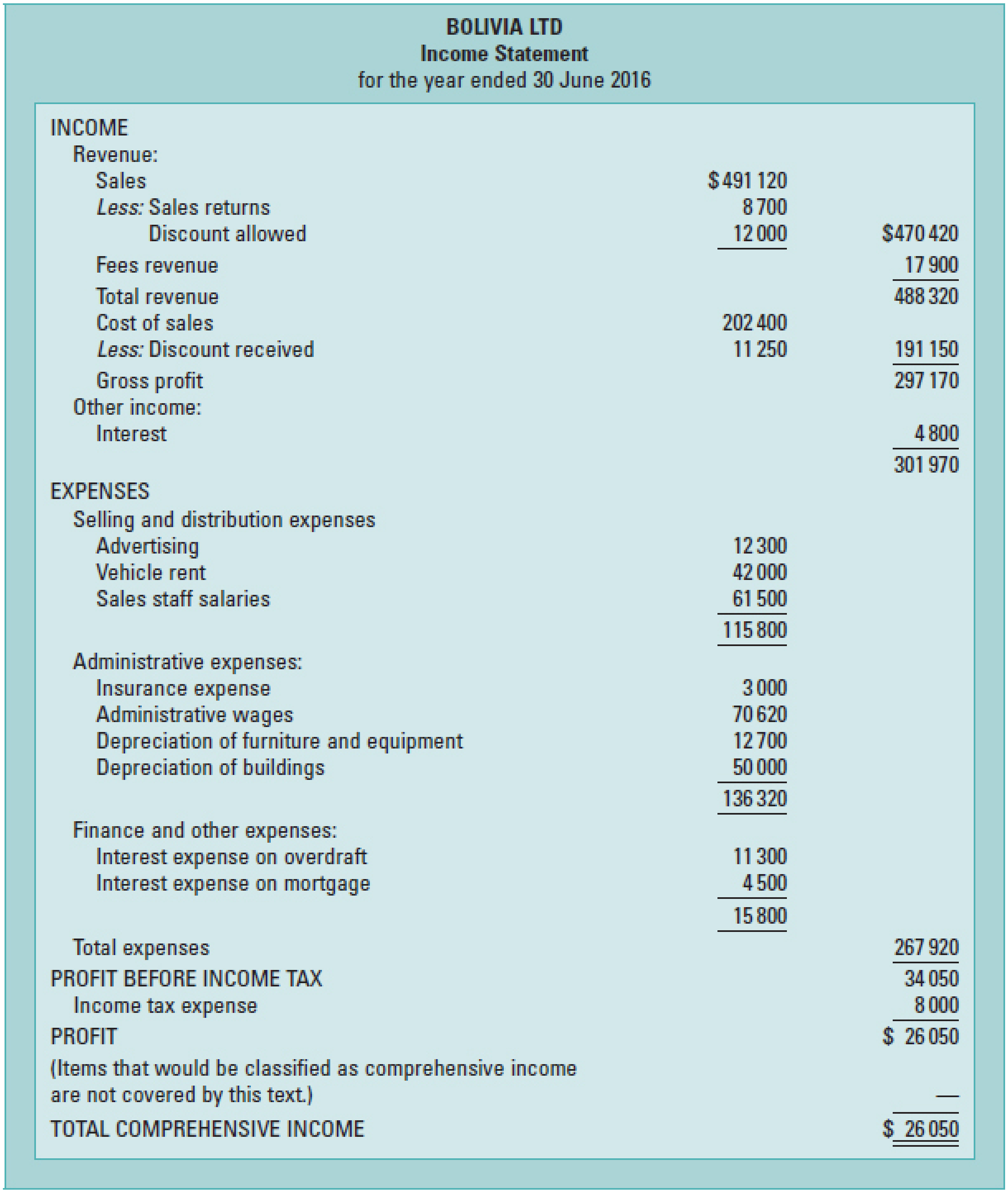


BOLIVIA LTD
Adjusted Trial Balance
as at 30 June 2016

	Debit	Credit
Bank overdraft		$ 178 050
Vehicle rental expense	$ 42 000	
Cash at bank	7 500	
Investment in government bonds	180 000	
Interest revenue		4 800
Insurance expense	3 000	
Land	230 000	
Buildings	1 000 000	
Office furniture and equipment	127 000	
Retained earnings		99 000
Accum. depr. – office furniture and equipment		35 700
Accum. depr. – buildings		150 000
Cost of sales	202 400	
Advertising expense	12 300	
Sales returns and allowances	8 700	
Sales		491 120
Mortgage payable		90 000
GST payable		22 000
GST receivable	7 000	
Inventory	106 000	
Share capital (called to $1 per share)		1 140 000
General reserve		23 000
Interest expense on overdraft	11 300	
Discount received		11 250
Discount allowed	12 000	
Fees revenue		17 900
Accounts payable		118 900
Accounts receivable	210 700	
Salaries of sales staff	61 500	
Administrative wages	70 620	
Calls in arrears (25c per share)	2 000	
Calls in advance (25c per share)		6 000
Interest expense on mortgage	4 500	
Depreciation expense – buildings	50 000	
Depreciation expense – furniture and equipment	12 700	
Income tax expense	8 000	
Current tax liability		8 000
Wages and salaries payable		3 500
Prepaid rent	30 000	
	$2 399 220	$2 399 220

C. The income statement of Bolivia Ltd based on the information in figure 9.4 is as shown in figure 9.5. Expenses are classified according to various functions carried on in the business, namely by the selling and distribution, administrative and finance functions.

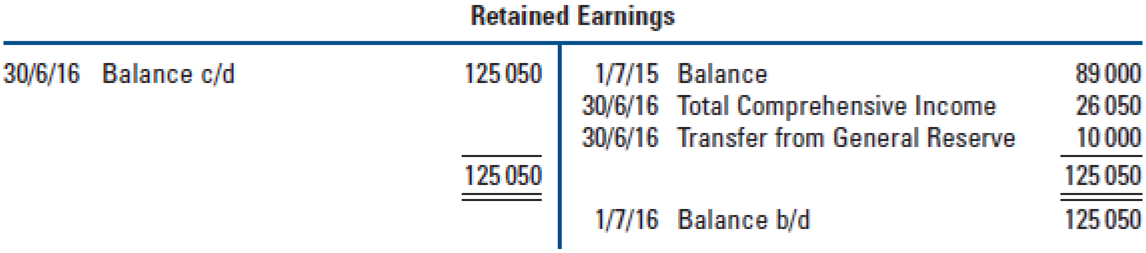
Figure 9.5 Income statement for Bolivia Ltd



BOLIVIA LTD
Income Statement
for the year ended 30 June 2016

INCOME		
Revenue:		
Sales	$491 120	
Less: Sales returns	8 700	
Discount allowed	12 000	$470 420
Fees revenue		17 900
Total revenue		488 320
Cost of sales	202 400	
Less: Discount received	11 250	191 150
Gross profit		297 170
Other income:		
Interest		4 800
		301 970
EXPENSES		
Selling and distribution expenses		
Advertising	12 300	
Vehicle rent	42 000	
Sales staff salaries	61 500	
	115 800	
Administrative expenses:		
Insurance expense	3 000	
Administrative wages	70 620	
Depreciation of furniture and equipment	12 700	
Depreciation of buildings	50 000	
	136 320	
Finance and other expenses:		
Interest expense on overdraft	11 300	
Interest expense on mortgage	4 500	
	15 800	
Total expenses		267 920
PROFIT BEFORE INCOME TAX		34 050
Income tax expense		8 000
PROFIT		$ 26 050
(Items that would be classified as comprehensive income are not covered by this text.)		—
TOTAL COMPREHENSIVE INCOME		$ 26 050

D. Having determined the profit of the company, the Retained Earnings account (in T account format) for the year is as follows:

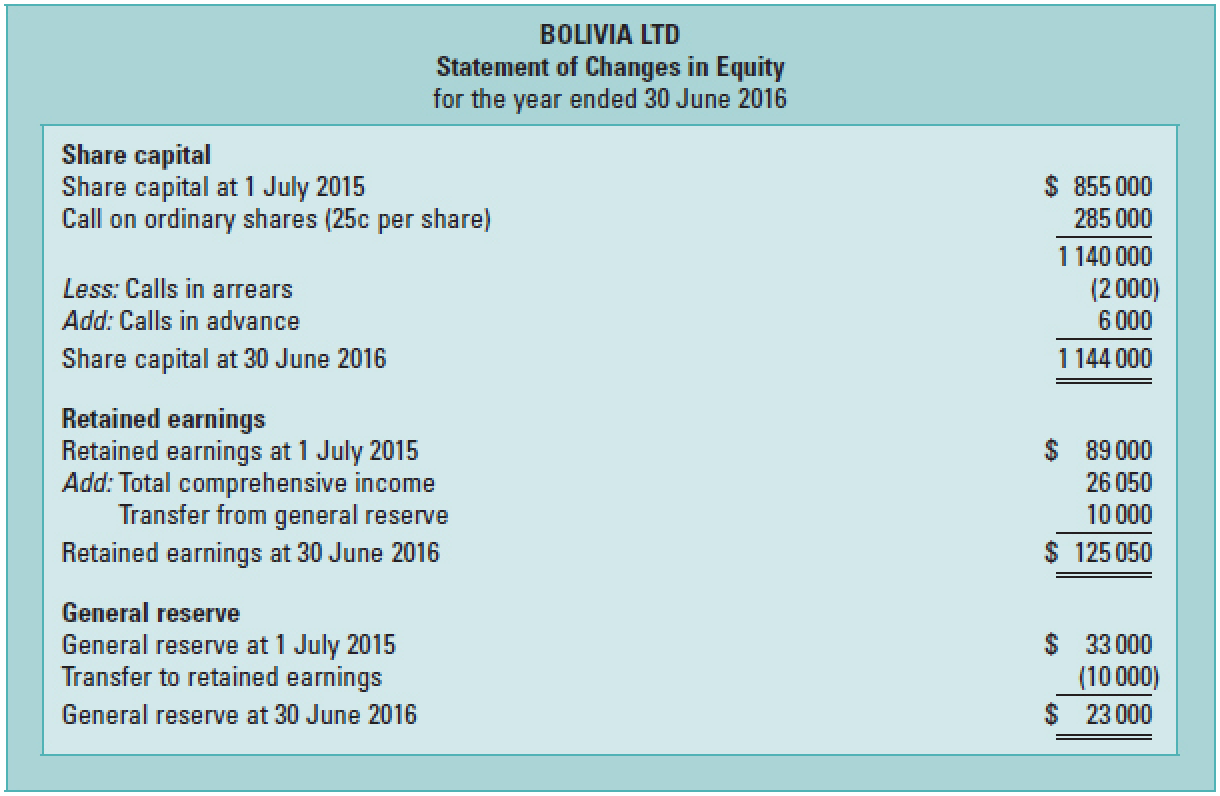


Retained Earnings

30/6/16	Balance c/d	125 050	1/7/15	Balance	89 000
			30/6/16	Total Comprehensive Income	26 050
			30/6/16	Transfer from General Reserve	10 000
		125 050			125 050
			1/7/16	Balance b/d	125 050

The statement of changes in equity for Bolivia Ltd is shown in figure 9.6.

Figure 9.6 Statement of changes in equity for Bolivia Ltd



BOLIVIA LTD
Statement of Changes in Equity
for the year ended 30 June 2016

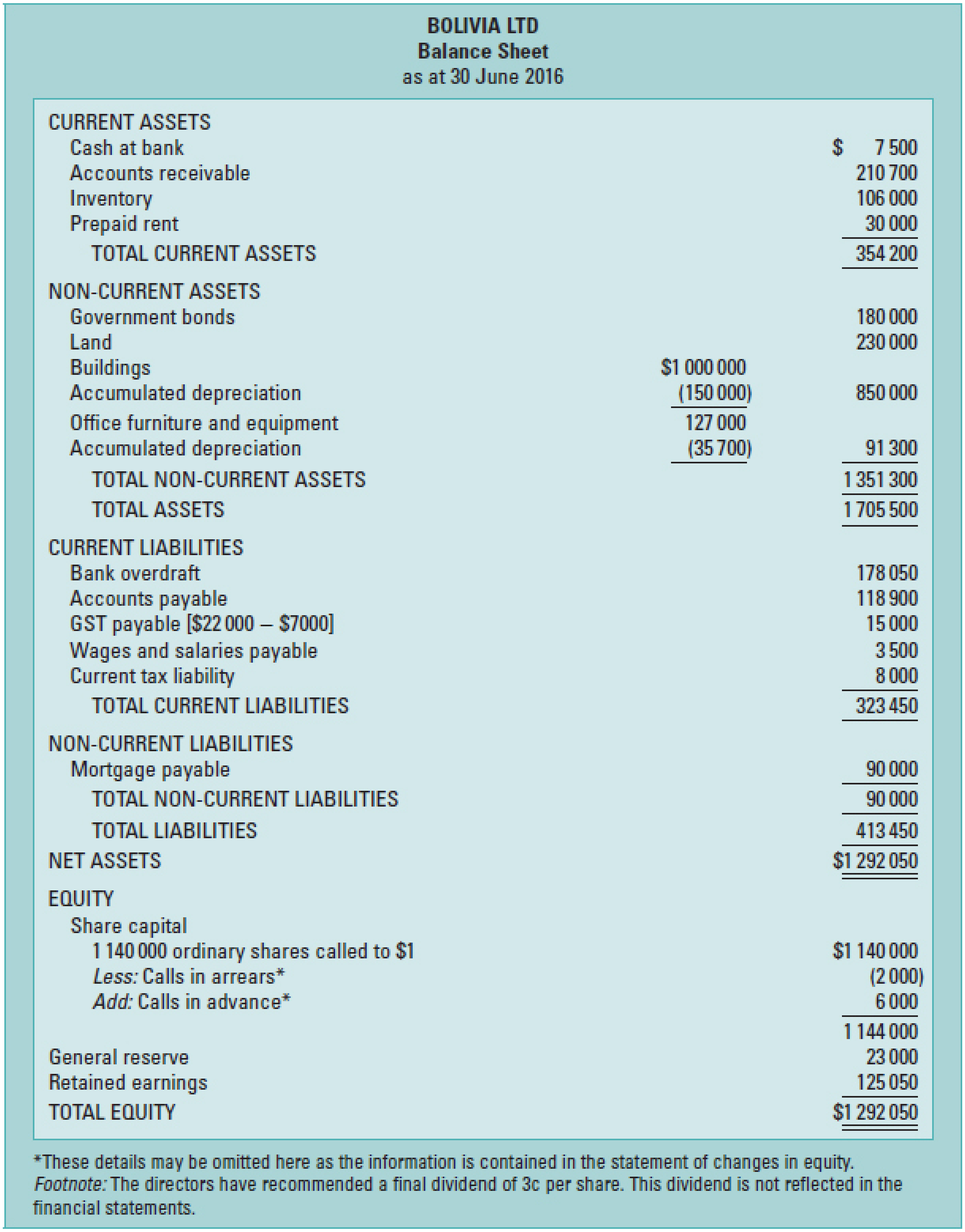
Share capital	
Share capital at 1 July 2015	$ 855 000
Call on ordinary shares (25c per share)	285 000
	1 140 000
Less: Calls in arrears	(2 000)
Add: Calls in advance	6 000
Share capital at 30 June 2016	1 144 000
Retained earnings	
Retained earnings at 1 July 2015	$ 89 000
Add: Total comprehensive income	26 050
Transfer from general reserve	10 000
Retained earnings at 30 June 2016	$ 125 050
General reserve	
General reserve at 1 July 2015	$ 33 000
Transfer to retained earnings	(10 000)
General reserve at 30 June 2016	$ 23 000

The statement of changes in equity is a useful financial statement in that it provides an effective link between the income statement and the balance sheet in terms of any movements in equity accounts during the year. The statement shows how the Retained Earnings account was increased by profits, total comprehensive income and transfers from reserves, and decreased by losses (if applicable), transfers to reserves, and distributions to the owners usually in the form of dividends during the current period, leaving the closing balance of Retained Earnings, which also appears in the company's balance sheet. The statement also shows the movement in the general reserve account for the year and the movements in share capital during the year.

E. The balance sheet of a company lists all its assets, liabilities and equities as at the end of the reporting period. As discussed in earlier chapters dealing with sole traders, it is also common for a company to classify assets and liabilities on the basis of whether they are current or non-current. Such a classification is presented in figure 9.7 (p. 408) for Bolivia Ltd.

The balance sheet in figure 9.7 follows the format of the accounting equation expressed as Assets – Liabilities = Equity. Many other formats are acceptable, especially for internal management purposes, depending on the information to be emphasised in the statement. Information considered most relevant by management should be placed in the most prominent position. For example, if equities are to be emphasised, the balance sheet could begin with equities and follow the format Equity = Assets – Liabilities. Alternatively, it could be presented in the format Assets = Liabilities + Equity if this is suitable for management purposes.

Figure 9.7 Balance sheet for Bolivia Ltd, for internal use



BOLIVIA LTD
Balance Sheet
as at 30 June 2016

CURRENT ASSETS		
Cash at bank		$ 7 500
Accounts receivable		210 700
Inventory		106 000
Prepaid rent		30 000
TOTAL CURRENT ASSETS		354 200
NON-CURRENT ASSETS		
Government bonds		180 000
Land		230 000
Buildings	$1 000 000	
Accumulated depreciation	(150 000)	850 000
Office furniture and equipment	127 000	
Accumulated depreciation	(35 700)	91 300
TOTAL NON-CURRENT ASSETS		1 351 300
TOTAL ASSETS		1 705 500
CURRENT LIABILITIES		
Bank overdraft		178 050
Accounts payable		118 900
GST payable [$22 000 – $7000]		15 000
Wages and salaries payable		3 500
Current tax liability		8 000
TOTAL CURRENT LIABILITIES		323 450
NON-CURRENT LIABILITIES		
Mortgage payable		90 000
TOTAL NON-CURRENT LIABILITIES		90 000
TOTAL LIABILITIES		413 450
NET ASSETS		$1 292 050
EQUITY		
Share capital		
1 140 000 ordinary shares called to $1		$1 140 000
Less: Calls in arrears*		(2 000)
Add: Calls in advance*		6 000
		1 144 000
General reserve		23 000
Retained earnings		125 050
TOTAL EQUITY		$1 292 050

*These details may be omitted here as the information is contained in the statement of changes in equity.
Footnote: The directors have recommended a final dividend of 3c per share. This dividend is not reflected in the financial statements.

For external reporting, the formats of the income statement, statement of changes in equity and the balance sheet as presented in this chapter are unsuitable as they do not comply with the requirements of accounting standard IAS 1/AASB 101 ***Presentation of Financial Statements***. External financial reporting for companies in accordance with accounting standards is considered in a later chapter.

LEARNING CHECK

☐ An income statement may be prepared with expenses classified either by nature or by function.
☐ A statement of changes in equity shows the movements in every type of equity account during the year.

☐ A balance sheet shows the equity of the company and its assets and liabilities, usually classified as current and non-current.

KEY TERMS

Accumulated loss, p. 386
Allotment, p. 389
Application, p. 388
Bonus share issue, p. 393
Call, p. 385
Certificate of registration, p. 383
Company limited by guarantee, p. 380
Constitution, p. 383
Cumulative preference shares, p. 397
Dividends, p. 396
Dividends in arrears, p. 397
Limited company, p. 378
No-liability company, p. 380
Non-cumulative preference shares, p. 398
Ordinary shares, p. 394
Participating preference shares, p. 398
Preference shares, p. 394
Preliminary expenses (start-up costs), p. 394
Proprietary company, p. 379
Prospectus, p. 383
Public company, p. 379
Replaceable rules, p. 383
Reserves, p. 400
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Rights issue, p. 393
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Share issue costs, p. 394
Share split, p. 400
Start-up costs (preliminary expenses), p. 394
Taxable income, p. 402
Tax payable method, p. 402
Uncalled capital, p. 385
Underwriter, p. 391
Unlimited company, p. 380

DISCUSSION QUESTIONS

1. Two partners in a business are discussing the possibility of incorporating their business as a proprietary company. Discuss the advantages and disadvantages of this move. Briefly discuss the impact the Corporations Act would have on their decision.
2. What is the difference between a small proprietary company, a large proprietary company and a public company?
3. What are the contents of an application form to register a company?
4. ‘It is better for a company to have a constitution rather than rely on the replaceable rules in the Act.’ Discuss.

5. Explain the purpose of each of the following accounts used in a public share issue: Share Capital, Application, Cash Trust, Allotment, Call, Calls in Advance.
6. Distinguish between a private placement, a public share issue and a rights issue. Distinguish also between a renounceable rights issue and a non-renounceable rights issue.
7. How should a company account for its start-up costs and its share issue costs? How should a company account for the fees paid to an underwriter?
8. 'Preference shares can offer security of dividends and other advantages over ordinary shares, and are therefore the best equity to have in a company.' Do you agree? Explain.
9. A well-established company, which wanted to raise finance for expansion, decided to issue some preference shares. The terms of the issue were that the shareholders did not have the right to vote at meetings, but were entitled to dividends of 12 cents per share each year, on a cumulative basis. Discuss the merits of issuing such shares. Where should they appear in the company's balance sheet? Explain your reasoning.
10. 'A company must have made sufficient profits before it can pay dividends to its shareholders.' Discuss.

EXERCISES

Exercise 9.1 ISSUE OF SHARES PAYABLE IN FULL LO 4

The directors of Dunedoo Ltd decided to issue 100 000 ordinary shares.

Required

A. Prepare journal entries (in general journal form) to record the issue of shares as a private placement to Good Times Ltd for $15 per share payable in full.

B. Prepare journal entries (in general journal form) to record the issue of shares to the public at $18 per share payable in full.

Exercise 9.2 DETERMINING EQUITY IN THE BALANCE SHEET LO 3, 8

Warren Ltd was organised on 2 January 2016, and proceeded to issue 100 000 9% cumulative preference shares and 200 000 ordinary shares. The preference shares were issued privately at a value of $2 each and the ordinary shares were issued to the public at $5 each, payable in two instalments of $2.50 per share. The first instalment was payable on application and the remaining instalment was payable by 30 June 2017.

Required

Prepare the equity section of the balance sheet as at 30 June 2017.

Exercise 9.3 ISSUE OF SHARES BY INSTALMENTS AND UNDERSUBSCRIPTION LO 4

On 30 April, Tamworth Ltd issued 40 000 shares for $6 each, payable $2 on application, $2 on allotment and the remainder due by two equal calls on 30 June and 31 August. Share issue costs of $3500 were paid on 31 May.

Required

Prepare journal entries (in general journal format) to record the share issue up to collection of allotment money assuming:

1. the shares were fully subscribed
2. the shares were undersubscribed by 6000 shares.

Exercise 9.4 SHARE ISSUE WITH OVERSUBSCRIPTION LO 4

On 1 July 2016, Denman Ltd issued a prospectus offering 160 000 of its ordinary shares, payable $1 on application, $1 on allotment and $2 to be called as and when required. When applications closed on 23 July, applications had been received for 240 000 shares, including one applicant for 20 000 shares who had paid in full. The directors allotted the shares on 24 July as follows:

1. The applicant for 20 000 shares, who paid in full, was allotted 20 000 shares.
2. Applications for 20 000 shares were rejected and the application money was refunded.
3. The remaining applicants were allotted 7 shares for every 10 applied for. The excess application money

on these shares was to be applied in part payment of allotment money.

All allotment money was received by 7 August.

Required

Prepare journal entries in general journal form to record the share issue.

Exercise 9.5 PRIVATE PLACEMENT AND PUBLIC ISSUE OF SHARES **LO 4, 8**

Scone Ltd was registered on 1 February 2016. The following events occurred in that year:

Feb. 1 50 000 ordinary shares were allotted to the original members. The shares were paid for in full at a price of $1 each.
A prospectus was issued for 100 000 10% preference shares and 150 000 ordinary shares, payable in full on application. The issue prices of the preference shares and ordinary shares respectively were $2 and $1.

Mar. 15 Applications were received for 100 000 preference shares and 220 000 ordinary shares.

Mar. 18 The directors allotted the shares in terms of the prospectus, excess monies being returned to unsuccessful applicants.

Required

A. Prepare entries in general journal form to record the above transactions.
B. Show the equity section of the balance sheet as at 18 March 2016.

Exercise 9.6 LEDGER ACCOUNTS FOR PUBLIC ISSUE AND RIGHTS ISSUE **LO 4**

The following events occurred in the newly formed company, Armidale Ltd, which was registered on 31 January 2016:

2016

Feb. 1 Armidale Ltd issued a prospectus calling for applications for 600 000 ordinary shares to be issued at a price of $3, payable $2 on application, 50c on allotment and the balance as and when required.

Mar. 1 Applications closed with the issue oversubscribed by $1 800 000. The directors allotted shares on the basis of 1 share for every 3 applied for. Excess application money was applied against amounts owing on allotment and the balance was refunded.

Sept. 20 A final call on shares was made.

Oct. 20 Call money was received.

Nov. 1 Shareholders were offered a 1-for-5 rights issue at a price of $2.80, with rights to be exercised by 15 December. If rights are not exercised, they will lapse.

Dec. 15 Holders of 560 000 shares exercised their rights to take up new shares in accordance with the rights issue by paying in the appropriate money to the company.

Required

Prepare ledger T accounts to record the above events in the records of Armidale Ltd for 2016.

Exercise 9.7 ISSUE OF ORDINARY SHARES **LO 4**

The following is an actual case:

Fortescue raises $504m

> Iron ore hopeful Fortescue Metals Group has raised $504 million to fund expansions to its emerging project in the Pilbara region of Western Australia. Fortescue said it had set a minimum raising target of US$300 million (A$344 million) for the much-anticipated capital raising, but decided to increase the target amount after strong demand. The company issued 14 million shares at $36 each to raise $504 million.
>
> The project was initially slated to produce 45 million tonnes of iron ore on an annual basis...
>
> ***Source:*** Excerpts from Sharples, B, 'Fortescue raises $504m', ***The Courier-Mail***.

Required

A. As the above share issue was a private placement with several well-known investors, prepare the journal entry, in general journal form, made by the company to record the share issue.
B. How would your answer to requirement A differ if the share issue had been a public share float?

Exercise 9.8 PARTICIPATING PREFERENCE SHARES LO 5

Maitland Ltd has issued 2 000 000 ordinary shares for $4 and 200 000 8% preference shares for $4, all shares being fully paid. On 30 September 2016 at the annual general meeting of the company, a dividend was declared for a total cash payout of $320 000. Preference shares are entitled to participate in further dividends once ordinary shares have received 8 cents per share. Assume that the dividends are taken out of retained earnings.

Required

A. Show how the total dividend would be apportioned between ordinary and preference shares.
B. Prepare journal entries in general journal form to record the dividend payments.

Exercise 9.9 JOURNAL AND LEDGERS FOR ISSUE OF SHARES LO 4

Bega Ltd was registered as a new company on 2 January 2017. On that day a prospectus was issued inviting applications for 300 000 ordinary shares at $10, payable $2.50 on application, $2.50 on allotment and the balance due in one call on 15 June 2017. The issue was underwritten for a fee of $7000.

On 31 January, applications closed with the issue undersubscribed by 15 000 shares. Directors proceeded to allot the shares. Amounts due on allotment were received on 9 February, including the amount due from the underwriter less the underwriter's commission.

On 15 June, the amounts due on the call were received with the exception of the amount due on 12 000 shares.

Required

Prepare journal entries (in general journal form) and ledger accounts (in T-account format) to record the above transactions.

Exercise 9.10 DIVIDENDS, TAX AND RESERVE TRANSFERS LO 5, 6, 7

During the year ended 30 June 2016, the directors of Cooma Ltd paid a final dividend out of retained earnings of $60 000, which had been recommended at the end of the previous financial year. They also declared and paid an interim dividend of $150 000 on 1 February 2017. The balance of the Retained Earnings account at 1 July 2016 was $200 000.

At 30 June 2017, the ledger accounts showed that the company had made a total profit of $1 000 000 for the year. However, the directors determined that the following adjustments were still necessary to finalise the accounts.

1. Provide for an income tax liability of $300 000.
2. Recommend the payment of a final dividend of $100 000 out of retained earnings.
3. Transfer $175 000 to a general reserve and $100 000 to a plant replacement reserve.

Required

A. Prepare journal entries to record all transactions above for the year ended 30 June 2017.
B. Prepare the Retained Earnings account for the year ended 30 June 2017.

Exercise 9.11 SHARE DIVIDENDS LO 5

Penshurst Ltd's balance sheet, before a share dividend, is as follows:

PENSHURST LTD
Balance Sheet
as at 30 June 2016

ASSETS		EQUITY	
Cash at bank	$ 20 000	Share capital	$100 000
Non-current assets	150 000	General reserve	40 000
		Retained earnings	30 000
	$170 000		$170 000

The company immediately declared a share dividend from the general reserve on the basis of 1 bonus share for every 5 shares held. All shares were issued at $1.

Required

Prepare any journal entries necessary to record the payment of this share dividend.

Exercise 9.12 PREPARATION OF INCOME STATEMENT LO 7, 8

The following information relates to Nevertire Ltd. Profit before income tax for the year ended 30 June 2016 was $220 000. The following items were used in determining that profit:

Sales	$580
Cost of sales	000
Selling, administrative and finance	234 000
expenses	72 000
Loss from flood	14 000
Interest revenue	18 000
Bad debts	36 000
Development costs written off	22 000

Assume the company's taxation rate is 30c in the dollar.

Required

Prepare the income statement for the year ended 30 June 2016.

Exercise 9.13 DIVIDENDS, RESERVES, RETAINED EARNINGS LO 5, 6, 7

During the year ended 30 June 2016, the directors of Jindabyne Ltd declared and paid an interim dividend of $18 000 out of retained earnings. At the end of the year the financial statements showed a profit (before tax) of $460 000 out of which the directors made the following reserve transfers and tax liability.

Income tax expense	$140 000
Reserves:	
Plant replacement	40 000
General	102 000

The beginning balance of retained earnings was $15 000.

Required

A. Prepare journal entries relating to the above transactions.
B. Prepare the Retained Earnings account for Jindabyne Ltd for the year ended 30 June 2016.

Exercise 9.14 DIVIDENDS, RESERVES, STATEMENT OF CHANGES IN EQUITY LO 5, 6, 8

A. Show the journal entries to record the following transactions for Murrurundi Ltd.

1. Profit for the year was $1 750 000. Ignore income tax.

2. Directors resolved to transfer the amounts specified below from retained earnings to:
    - **(a)** contingencies reserve, $1 000 000
    - **(b)** general reserve, $400 000.
3. Some years ago, the company had established an exchange fluctuation reserve, $4 500 000, but now that it had withdrawn from international trade, this reserve was no longer required.
4. Start-up costs $250 000 were to be written off. This has not been reflected in the profit in (1) above.
5. An interim dividend of $200 000 had been paid and directors recommended a final dividend of $300 000 to be paid in 3 months' time, after ratification by shareholders at the annual general meeting. Both dividends were paid out of retained earnings.

Note: The beginning balance of the Retained Earnings account was $1 800 000.

B. Prepare the statement of changes in equity for Murrurundi Ltd.

Exercise 9.15 ISSUE OF SHARES, AND EQUITY IN THE BALANCE SHEET LO 4, 8

On 1 July 2016, Grafton Ltd was incorporated, and on 4 July a prospectus was issued inviting applications for 80 000 shares payable $4.50 on application, $2.50 on allotment and $2.50 on each of two calls to be made at intervals of 3 months after the date of allotment.

By 31 July, applications were received for 96 000 shares. On 3 August, the directors allotted 80 000 shares to the applicants in proportion to the number of shares for which application had been made. The surplus application money was offset against the amount payable on allotment. The balance of allotment money was received by 12 August.

The two calls were made on the dates stated in the prospectus, but the holders of 4800 shares did not pay either call. In addition, a holder of another 2400 shares did not pay the second call.

Required

A. Prepare journal entries to record the above transactions (in general journal format).
B. Prepare the equity section of the balance sheet of Grafton Ltd on completion of the transactions.

PROBLEMS

Basic
Moderate
Challenging

Problem 9.1 LEDGER ACCOUNTS ON ISSUE OF ORDINARY SHARES LO 4

Newcastle Ltd was incorporated on 1 July 2016. On 1 August, it was decided to issue 300 000 ordinary shares on the following terms:

Application	$2 per share
Allotment	$1 per share
Call as required	$1 per share

To the end of August, applications for 350 000 shares had been received together with the application money due on each share. One applicant for 5000 shares had forwarded $20 000 in full payment of the shares.

On 15 September, the directors proceeded to allot 300 000 shares on the following basis. Applicants for 30 000 shares were refunded their application money in full, 5000 shares were allotted to the applicant who paid for the shares in full, and the other successful applicants were allotted the remaining shares, excess application money being transferred to allotment.

On 7 October, all allotment money had been received.

A first and final call was made on 1 November, and all call money was received by 30 November with the exception of the amount due on 6000 shares.

Required

Prepare all ledger accounts (T account format) necessary to record the above transactions.

Problem 9.2 LEDGER ACCOUNTS FOR ISSUE OF SHARES, PREPARATION OF BALANCE SHEET **LO 4, 8**

On 1 January 2016, Shoalhaven Ltd was registered and, on the same day, the company purchased the net assets (excluding cash) of a partnership for a consideration of 240 000 ordinary shares (fully paid) at a price of $2.40 per share. 1 000 000 ordinary shares were offered to the public at $2.40 per share on the following terms:

$1 on application (due 15 January)
70c on allotment (due 15 February)
balance on final call (due 15 May).

By 15 January, applications had been received for 1 200 000 ordinary shares of which applicants for 200 000 shares forwarded the full $2.40 per share.

At a directors' meeting on 16 January, it was decided:

1. to allot ordinary shares in full to applicants who had paid in full on application
2. to allot the remaining ordinary shares from this issue in proportion of 4 for every 5 applied for.

According to the prospectus, all surplus money from applications was to be transferred to allotment and/or call accounts.

The share issue costs were $5600 and were paid on 15 February.

By 31 May, all money was received except for the holder of 2000 shares who did not pay the final call.

Required

A. Prepare ledger accounts (running balance format) to record all the above transactions.
B. Prepare a balance sheet for Shoalhaven Ltd as at 31 May 2016.

Problem 9.3 ISSUE OF ORDINARY AND PREFERENCE SHARES **LO 4**

Picton Ltd was registered on 1 July 2016. On 4 August a prospectus was issued inviting public subscriptions for an issue of 200 000 12% preference shares payable $2 in full on application, and 600 000 ordinary shares at a price of $1.60 per share, payable $1 on application, 20c on allotment and the balance as and when required.

Applications were to be made in multiples of 100 shares with a minimum of 200 preference shares or 500 ordinary shares. The directors reserved the right to allot the shares applied for in full or such lesser number as resolved and to apply excess money towards amounts due on allotment. All other money was to be refunded to applicants.

Applications were received for 240 000 preference shares and 800 000 ordinary shares by 16 August when the directors closed the issue. On 19 August, the directors allotted the shares as follows.

1. ***Preference:*** Three applications for a total of 40 000 shares were rejected, and the balance allotted in full.
2. ***Ordinary:*** Applications for 120 000 shares were rejected in full and the balance was allotted on a pro rata basis.

On 24 August, refunds were made to the respective applicants in accordance with the directors' resolutions. Share issue costs of $1500 were also paid on this date. Outstanding allotment money was received by 30 September.

On 8 November the directors resolved that a call of 30c per share was to be made on the 600 000 partly paid ordinary shares. The call is due and payable by 1 December.

Call money was received as follows:

1 December on 520 000 shares
15 December on 40 000 shares.

Required

Prepare entries in general journal form to record the above events in the accounts of Picton Ltd.

Problem 9.4 RIGHTS ISSUE, PRIVATE PLACEMENT, DIVIDENDS AND CHANGES IN EQUITY **LO 4, 5, 8**

The following is the equity of Bowral Ltd at 30 June 2016:

Share capital (200 000 fully paid ordinary shares)	$400 000
General reserve	200 000
Retained earnings	10 000

The transactions below occurred during the year ended 30 June 2017:

2016

July	1	Prospectus issued inviting offers for 200 000 shares to be issued for $3 per share. These shares were offered to existing shareholders on the basis of 1 share for every 2 shares at present held. Shares were payable in full on application and rights to the issue were transferable. The prospectus provided that these shares were to rank equally with existing shares from 1 July 2016. The issue was underwritten for a commission of $5000. In addition, 200 000 shares were privately placed with QLM Insurance Ltd at $2.80 per share, and these shares were to rank for dividend purposes from 1 October 2016.
July	31	The issue closed fully subscribed, the holders of 40 000 shares having transferred their rights. Directors proceeded to allotment.
Aug.	1	Underwriting commission paid.
Sept.	22	At the annual general meeting, shareholders approved a final dividend of 15c per share for the year ended 30 June 2016. The dividend had not been recorded in the accounts for the year ended 30 June 2016. Dividends were paid by direct debit to shareholders after the close of the meeting. Dividends were paid from General Reserve.

Required

1. Prepare entries in general journal format to record the above transactions.
2. Prepare a statement of changes in equity for the period 1 July to 30 September 2016.

Problem 9.5 LEDGERS, STATEMENT OF CHANGES IN EQUITY **LO 4, 5, 8**

The following information relating to the year ending 30 June 2016 for Penrith Ltd has been obtained from the company's records.

Profit for year before further adjustments and tax	$33 000
Retained earnings (1 July 2015)	5 500
General reserve	3 000
Revaluation surplus	2 500
Interim dividend paid	5 000
Development costs	3 500

On 30 June 2016, the directors decided to:

1. recommend a final cash dividend of $7000, to be ratified by shareholders at the annual general meeting
2. write off development costs
3. increase the general reserve by $1000
4. provide for an estimated tax expense and current tax liability of $7500 on 2015–16 profits.

Required

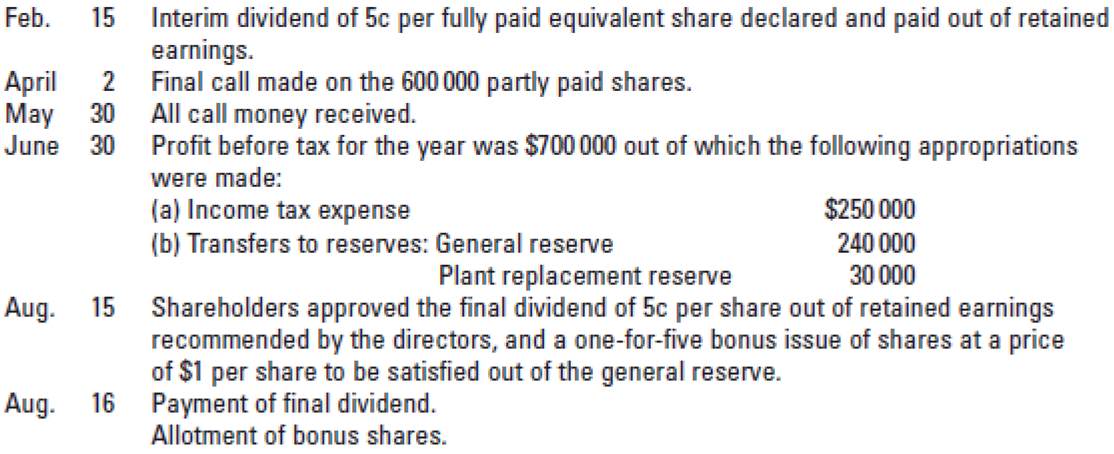
Record the above adjustments in ledger accounts and prepare a statement of changes in equity for Penrith Ltd for the year ended 30 June 2016.

Problem 9.6 DIVIDENDS, RESERVES **LO 5, 6, 7**

Equity of Toronto Ltd at 14 February 2016 consisted of:

Share capital:		
800 000 shares (fully paid for $1)	$800 000	
600 000 shares (paid to 50c, issued at $1)	300 000	$1 100 000
General reserve		100 000
Plant replacement reserve		50 000
Retained earnings		125 000

The following events occurred during 2016:



Feb.	15	Interim dividend of 5c per fully paid equivalent share declared and paid out of retained earnings.	
April	2	Final call made on the 600 000 partly paid shares.	
May	30	All call money received.	
June	30	Profit before tax for the year was $700 000 out of which the following appropriations were made:	
		(a) Income tax expense	$250 000
		(b) Transfers to reserves: General reserve	240 000
		Plant replacement reserve	30 000
Aug.	15	Shareholders approved the final dividend of 5c per share out of retained earnings recommended by the directors, and a one-for-five bonus issue of shares at a price of $1 per share to be satisfied out of the general reserve.	
Aug.	16	Payment of final dividend. Allotment of bonus shares.	

Required

A. Prepare journal entries in general journal format to give effect to the above transactions.
B. Show the Retained Earnings account up to 17 August 2016.
C. Show the statement of changes in equity from 14 February 2016 to 17 August 2016.

Problem 9.7 ISSUE OF SHARES, DIVIDENDS AND STATEMENT OF CHANGES IN EQUITY LO 4, 5, 6, 7

Broken Hill Ltd's equity at 30 June 2016 was as follows:

200 000 ordinary shares, issued at $3.20, fully paid	$ 640 000
500 000 ordinary shares, issued at $3.40, called to $2.40	1 200 000
180 000 redeemable preference shares, issued at $1, fully paid	180 000
Calls in advance (10 000 ordinary shares)	10 000
Share issue costs	(9 700
General reserve	60 000
Retained earnings	300 000

The following events occurred during the year ended 30 June 2017:

2016

July	15	The final call, due 31 August, was made on the partly paid shares.
Aug.	31	All call money was received.
Sept.	20	Paid the final dividends (ordinary: 20c per fully paid equivalent share, and preference: 9%) declared on 30 June 2016.
Dec.	10	Declaration and payment of a 6c per fully paid equivalent share interim dividend on ordinary shares.

2017

Jan.	3	A prospectus was issued, inviting applications for 160 000 ordinary shares at an issue price of $2.50, payable in full on application.

Jan.	31	The issue closed fully subscribed, with all money due having been received.
Feb.	5	The 160 000 shares were allotted.
June	30	The directors declared a final dividend of 12c per share (payable on 20 September 2017), and transferred $100 000 to the general reserve.

Required

A. Prepare journal entries (in general journal form) to record the above transactions.
B. Prepare a statement of changes in equity for the year ended 30 June 2017, assuming profit for the year was $36 000.

Problem 9.8 SHARE ISSUES AND STATEMENT OF CHANGES IN EQUITY **LO 4, 8**

Gundagai Ltd was incorporated on 30 June 2016. On 1 July 2016, the company issued a prospectus offering 300 000 ordinary shares at an issue price of $10, payable on the following terms:

$3 on application
$3 on allotment
$2 on first call
$2 on second call

A summary of the applications and allotments register follows:

Amount paid per share on application	Number of shares applied for	Number of shares allotted
$ 3	200 000	150 000
$ 6	100 000	100 000
$ 10	50 000	50 000

Shares were allotted to all applicants on 1 September 2016. All money received in excess of amounts due on application was applied to amounts due on allotment and calls. Where appropriate, refunds of application money were made. All allotment money was received by 30 September 2016.

On 1 November 2016, Gundagai Ltd's directors made a call of 42c per share, payable by 30 November 2016. By 31 December, call money had not been received from holders of 25 000 shares.

Required

A. Prepare general journal entries to record the above events.
B. Prepare the ledger accounts (running balance format) for the period 1 July to 31 December 2016.
C. Prepare the statement of changes in equity for the period ending 31 December 2016.

Problem 9.9 SHARE ISSUES AND DIVIDENDS **LO 4, 5, 8**

At 30 June 2016, Box Hill Ltd's equity was as follows:

Issued capital:	$480 000
400 000 ordinary shares issued at $1.20, fully paid	80 000
80 000 7% preference shares issued at $1, fully paid	
Retained earnings	560 000
General reserve	348 000
	70 000
Total equity	$978 000

The preference shares were non-participating. The following events occurred after 30 June 2016:

2016

Sept.	1	Final dividends out of retained earnings, as recommended in June, were paid in cash. This included the 7% preference dividend for the year ended 30 June 2016 and a final ordinary dividend of 10c per share.

Oct.	15	A prospectus was issued inviting subscriptions for 100 000 ordinary shares at an issue price of $1.40, payable 80 cents on application and 60 cents on allotment.
Nov.	18	Applications closed, with applications having been received for 100 000 shares. Applicants for 8000 shares had paid in full on application.
Nov.	20	Shares applied for were allotted, with excess application money being applied to allotment.
Dec.	11	The balance of allotment money due was received.
Dec.	31	In order to keep cash in the company to meet its ever-increasing need for liquidity, the directors decided not to pay an interim cash dividend. Instead, they made a bonus issue from the general reserve of one ordinary share (valued at $1.20) for every 10 ordinary shares held.
2017		
June	20	The directors paid the preference dividend for the year.
June	30	The directors recommended a final dividend of 12c per ordinary share.

Required

Prepare the journal entries (in general journal form) necessary to record the above events in Box Hill Ltd's accounting records.

Problem 9.10 SHARE ISSUES AND STATEMENT OF CHANGES IN EQUITY **LO 4, 5, 8**

A trial balance taken from Galston Ltd's accounting records at 30 September 2016 showed the following account balances:

GALSTON LTD
Trial Balance
as at 30 September 2016

Account	Debit	Credit
Share capital (700 000 shares fully paid)		$ 700 000
General reserve		240 000
Retained earnings		117 800
Current tax liability		30 000
Accounts payable		120 900
Mortgage payable		180 000
Bank overdraft (current)		60 600
Other liabilities (current)		3 300
Property, plant and equipment (net)	$ 890 800	
Accounts receivable	90 200	
Inventory	370 600	
Prepayments	1 000	
Patent	100 000	
	$1 452 600	$1 452 600

At a meeting of directors on 1 October, it was decided to issue additional shares to fund future operations. Accordingly a prospectus was issued on 10 October offering 400 000 ordinary shares at $1 each to the public, payable 50c per share on application, 25c per share on allotment and the remainder in one call when required.

By 30 November, applications were received from the public for 24 000 shares in excess of the number available, and the application money paid in on 24 000 shares was refunded to unsuccessful applicants. The rest of the shares were allotted to the successful applicants, including one who had paid in full on application for 4000 shares. The share issue had been underwritten for a fee of $8000.

By 15 December, all cash due on allotment had been received, and the underwriting fee was paid on this date.

On 31 January 2017, an interim dividend of 6c per share was paid out of retained earnings on all fully paid equivalent shares.

On 28 February, the remaining call on the shares was made, and all cash was received on the call by 31 March, except for the holder of 7000 shares.

Required

A. Prepare journal entries in general journal form to record the above transactions.
B. Prepare the following accounts in T-account format to show the effect of the above transactions: Share Capital, Application, Allotment, Call.
C. Prepare a statement of changes in equity for the 6 months ended 31 March 2017, assuming that the profit made by the company during that period amounted to $120 000.

Problem 9.11 SHARE ISSUES AND STATEMENT OF CHANGES IN EQUITY **LO 4, 5, 6, 8**

In January 2015, the management of Branxton Ltd decided on a program of expansion for the business. On 1 July 2015, the company had $900 000 in retained earnings, and another reserve totalling $600 000 had been set aside out of retained earnings for the acquisition of equipment. Share capital consisted of 2 800 000 shares issued for $1 each. The following events occurred in relation to the equity accounts of Branxton Ltd over the next few years:

2016

June	30	Profit for the year amounted to $270 000. Interim dividends paid during the year amounted to $20 000, and $120 000 was added to the reserve for acquiring equipment. The directors recommended a final dividend of 2.5c per share to be approved at the annual meeting in September.
Sept.	21	The final dividend recommended in June was paid out of retained earnings.
Nov.	30	800 000 ordinary shares in Branxton Ltd, with a fair market value of $1.20 each, were issued as payment for acquiring 1 000 000 ordinary shares in Aberdeen Ltd, a company that conducted activities complementary to those of Branxton Ltd. The shares in Aberdeen Ltd had been issued originally for $1 each.

2017

June	30	Profit for the financial year was calculated to be $500 000. The directors recommended a final dividend of 3c per share out of retained earnings and $150 000 was added to the reserve for equipment acquisition.
Sept.	22	The dividend recommended in June was approved at the annual general meeting and paid in cash.

2018

June	30	Profit for the year amounted to $480 000. A dividend of 4c per share was recommended by directors and a further $130 000 was set aside to the reserve for acquisition of equipment.
Sept.	23	The dividend recommended on 30 June was approved and paid out of retained earnings.
Dec.	31	The contractor who had been employed by the company completed construction of new, technologically advanced equipment for the company’s use. The total cost of construction amounted to $1 020 000. Cash was paid in full to the contractor for the equipment. The directors ruled that the reserve for acquisition of new equipment was to be eliminated from the accounting records. Profit for the half-year was determined as $300 000. An interim dividend of 2c per share was declared and paid out of retained earnings.

Required

A. Prepare journal entries to record all transactions and events across the 3-year period.
B. Show the equity section of the balance sheet of Branxton Ltd as at 31 December 2018.

Problem 9.12 DIVIDENDS, RESERVES, BONUS ISSUE AND STATEMENT OF CHANGES IN EQUITY

LO 4, 5, 6, 8

The equity of Lochinvar Ltd at 30 June 2016 was:

Share capital	
50 000 10% cumulative preference shares — fully paid	$ 50 000
100 000 ordinary shares — fully paid	200 000
	250 000
Revaluation surplus	60 000
Contingencies reserve	20 000
Retained earnings	(40 000)
Total equity	$290 000

During the year ended 30 June 2017, the following transactions occurred:

2016	
Sept. 1	Lochinvar Ltd paid damages of $18 000 awarded in a lawsuit against it. In anticipation of this, the directors had authorised the appropriation for contingencies last year. The board now directs that the reserve is to be discontinued.
2017	
March 1	The directors authorised payment of dividends of 10% on the preference shares and 10c per share interim on ordinary shares out of retained earnings. Preference dividends have not been paid for 2015 or 2016.
March 12	Dividends declared on 1 March were paid.
April 30	The directors authorised the issue to ordinary shareholders of a bonus share issue of 1 share for every 5 held, valued at $2.60. The shares do not rank for dividend until 2018. The issue is out of the revaluation surplus.
June 30	The profit before tax for the year was $370 000. The directors decided to recommend to the annual general meeting a final dividend of 18c per share on ordinary shares, to come out of retained earnings. Assume the taxation rate is 30%.

Required

A. Prepare general journal entries to record all transactions for the year.
B. Prepare a statement of changes in equity for Lochinvar Ltd for the year ended 30 June 2017.

Problem 9.13 COMPREHENSIVE PROBLEM

LO 4, 5, 6, 7, 8

Swansea Ltd prepared the unadjusted trial balance as at 30 June 2016 shown on page 421.

The following information and events are yet to be recorded by the company on 30 June 2016.

1. Inventory on hand after a physical stocktake at 30 June 2016 amounted to $265 000.
2. Prepaid insurance at the end of the year amounted to $3000.
3. Wages accrued and unpaid were $1700.
4. Interest owing and unrecorded on debentures and bank overdraft was $15 000.
5. Depreciation to be recorded on delivery vehicles at the rate of 20% p.a., on buildings at the rate of 5% p.a., and on furniture at the rate of 10% p.a. All these assets have been on hand throughout the year.

6. Interest due on investments amounted to $6000.
7. Sales made on the last day of the financial year but not recorded were for $8000.
8. The directors have decided to transfer $20 000 to the general reserve from retained earnings.
9. Dividends of 5c per share were recommended. An interim dividend of $35 000 had been paid during the year, and this dividend had been debited to the Retained Earnings account.
10. The company issued 30 000 bonus shares valued at $1 each out of the revaluation surplus.

SWANSEA LTD
Unadjusted Trial Balance
as at 30 June 2016

Account	Debit	Credit
Share capital (700 000 shares fully paid)		$ 700 000
General reserve		200 000
Retained earnings		80 000
Revaluation surplus		30 400
Current tax liability		20 800
Accounts payable		50 300
Debentures		400 000
Bank overdraft (current)		30 700
Other liabilities (current)		30 300
Land	$ 400 000	
Buildings	620 000	
Accum. depr. – buildings		100 000
Furniture and equipment	160 000	
Accum. depr. – furniture and equipment		80 000
Delivery vehicles	60 400	
Accum. depr. – delivery vehicles		20 000
Accounts receivable	60 600	
Inventory (1 July 2015)	240 000	
Investments	200 000	
Prepaid insurance	10 000	
Sales		530 600
Purchases	240 000	
Sales returns and allowances	2 080	
Purchases returns and allowances		2 000
Freight inwards	10 080	
Freight outwards	9 060	
Wages expense	100 500	
Discount allowed	3 050	
Discount received		3 020
Interest expense	10 140	
Advertising expense	30 700	
Income tax expense	20 800	
Administrative expenses	100 710	
	$2 278 120	$2 278 120

Required

A. Prepare the adjusting entries necessary.
B. Prepare a detailed income statement for internal use for Swansea Ltd for the year ended 30 June 2016.
C. Prepare the statement of changes in equity for Swansea Ltd for the year ended 30 June 2016.
D. Prepare the balance sheet for Swansea Ltd as at 30 June 2016.

Problem 9.14 COMPREHENSIVE PROBLEM

LO 4, 5, 6, 7, 8

The accounts in the ledger of Zetland Ltd as at 30 June 2017 had balances as shown on page 422.

The Share Capital account represents 30 000 000 shares fully paid at $1 and 50 000 000 shares issued at $1 but called to 75c per share. A call of 25c per share had been made on these 50 000 000 shares during the year, but 2 000 000 had failed to pay the call by 30 June 2017. An interim dividend of $1 500 000 has been paid during the year out of retained earnings.

Inventory on hand at 30 June 2017 was $16 000 000.

The following adjustments have to be made.

1. Provide for 10% p.a. depreciation on cost of fixtures and fittings and 5% p.a. on buildings for the whole year.

2. Unrecorded and unpaid expenses: travellers' salaries $100 000.
3. General expenses prepaid, $15 000.
4. Record income tax expense and current tax liability of $900 000.
5. Declare a final dividend, $1 500 000. No ratification of this dividend is needed.
6. Share issue costs to be written off against share capital.
7. An amount of $1 000 000 is to be transferred to a general reserve from retained earnings.

ZETLAND LTD

	Debit ($000)	Credit ($000)
Share Capital		67 500
Second Call	500	
Retained Earnings		4 600
Mortgage Payable on Land and Buildings		20 000
Land	10 200	
Buildings	40 000	
Fixtures and Fittings	2 500	
Accumulated Depreciation – Buildings		4 000
– Fixtures and Fittings		500
Investments	40 000	
Share Issue Costs	500	
Accounts Receivable Control	5 495	
Inventory on hand (1 July 2016)	15 000	
Bank Overdraft		11 000
Accounts Payable Control		2 000
Sales Revenue		24 000
Interest from Investments		1 750
Purchases	11 850	
Freight Inwards	150	
Commission Expense	100	
Delivery Expense	200	
Salaries: Administrative	3 500	
Travellers	1 190	
Directors' Fees	200	
General Expenses	2 965	
Interest on Mortgage Expense	1 000	
	$135 350	$135 350

Required

Prepare an income statement for the year ended 30 June 2017, and a balance sheet as at 30 June 2017.

Problem 9.15 COMPREHENSIVE PROBLEM

LO 4, 5, 6, 7, 8

The trial balance of Victoria Ltd at 30 June 2016 is shown on page 423.

There was no movement in share capital for the year.

The following adjustments are required.

1. Record income tax expense of $7500.
2. Transfer $1000 to general reserve.
3. Accrued expenses: sales staff’s salary $650; office salaries $270; interest on bank loan $20.
4. Write off preliminary expenses $3000.
5. Rent prepaid $300.
6. Record depreciation: motor vehicles 10% on cost; office furniture 20% on cost; buildings 5%.
7. Recommend a dividend of 20c per share.

VICTORIA LTD
Trial Balance
as at 30 June 2016

	Debit	Credit
Share capital (50 000 shares issued at $1 called to 80c)		$ 40 000
Retained earnings 1/7/15		5 000
General reserve		4 700
Asset replacement reserve		10 000
Sales		150 000
Sales returns and allowances	$ 500	
Cost of sales	93 280	
Freight inwards	600	
Freight outwards	700	
Advertising expense	1 000	
Preliminary expenses	3 000	
Buildings	44 000	
Selling expenses	1 000	
Sales staff’s salary expense	10 000	
Sales staff’s car expenses	1 500	
Sales staff’s entertainment expenses	1 200	
General expenses	1 250	
Insurance expense	2 000	
Rates expense	1 000	
Discount allowed	1 270	
Accounts receivable	16 500	
Accumulated depreciation – buildings		1 000
– motor vehicles		2 000
– office furniture		1 000
Accounts payable		6 000
Bank loan (repayable 1 July 2016)		1 000
Cash at bank	6 100	
Motor vehicles (at cost)	10 000	
Office furniture (at cost)	3 000	
Inventory	16 000	
Office salaries expense	5 300	
Interest on overdraft expense	50	
Rent expense	1 450	
	$220 700	$220 700

Required

Prepare an income statement and a statement of changes in equity for the year ended 30 June 2016 and a balance sheet for Victoria Ltd as at 30 June 2016.

DECISION ANALYSIS

From partnership to company

Fifteen years ago, John Kerr worked as a production manager for a small manufacturing firm involved in the production of metal furniture. Owing to his keen interest in woodworking, he decided at that time to begin his own business, Woodworkers Anonymous, with the aim of manufacturing dolls' houses and other wooden toys to retail.

After moderate success in this venture over a period of 5 years, he decided to form a partnership with two good friends, Alexis Thompson and James Bentley, and to branch out into the manufacture of wooden garden furniture. This partnership traded under the name of The Garden Furniture Store, even though the construction of dolls' houses and other toys was to continue. John had a 60% interest in the partnership, and both Alexis and James had 20% interests. John took on the role of general manager in the partnership, with Alexis and James being responsible for production and sales respectively.

After further success in this venture, because of John's previous experience in the metal industry, the partners decided to expand the business into metal garden furniture and metal fencing. As part of these arrangements, they were thinking of applying to ASIC to be registered as a proprietary company. The proposed name for the new company was Relaxaquipment Pty Ltd, and each partner was to continue operating in a similar role.

Before registering the company, a trial balance of the partnership was as follows:

THE GARDEN FURNITURE STORE

Trial Balance

as at 30 June 2016

	Debit	Credit
Cash at bank	$ 20 250	
Accounts receivable	43 650	
Inventories	71 250	
Prepaid insurance	1 500	
Land	45 000	
Building	225 000	
Accumulated depreciation – building		$ 37 500
Equipment	150 000	
Accumulated depreciation – equipment		30 000
Accounts payable		63 750
Accrued expenses		2 625
John Kerr, Capital		200 000
John Kerr, Retained Earnings		19 844
Alexis Thompson, Capital		70 000
Alexis Thompson, Retained Earnings		31 463
James Bentley, Capital		70 000
James Bentley, Retained Earnings		31 468
	$556 650	$556 650

It was agreed that the fair values of all assets and liabilities were equal to their carrying amounts, and that each partner would be issued with shares in the new company, valued at $1 each, in accordance with the values of their total equity in the partnership. In order to finance expansion into metal gates and fencing, the three partners decided that the new company would need to apply for a $60 000 loan, interest payable annually at 8%, from the Western Bank, with the principal repayable over a 10-year period. They also agreed that they could ask another friend, Simone Carey, to become a member of the company by taking up shares and contributing further cash requirements of $50 000, if necessary.

Before incorporation, however, they seek your advice on the following questions:

- What are the advantages and disadvantages of incorporation, compared with remaining a partnership?
- What is the legal relationship between the shareholders, directors and officers in a company?
- What portion of the total equity belongs to each partner in the new company? Will the partners be happy with this if they expect the same profit-sharing ratio as in the partnership?
- Given that it will cost $300 in legal fees to form the company, how should these legal fees be recorded in the company's accounts?

- How would the balance sheet of the company appear immediately after registering and taking up the loan from Western Bank?
- How much profit before income tax and interest would the company have to earn in the first year in order to achieve a rate of return on total assets (net of depreciation) of 15%?
- Assuming an income tax rate of 30% on profit, how much profit would this represent for the shareholders after interest and after tax?

Ignore GST in this situation.

Required

A. Answer the above questions for the three partners.
B. Should they proceed with incorporation? Are there other factors they should consider?

CRITICAL THINKING

Accounting for a donation

Recyclers Ltd was formed for the purpose of collecting and recycling household garbage in Australia's capital cities. The company has been in operation for 5 years and has managed to be profitable enough to survive. Nevertheless, it has come across a number of problems, especially related to the need for new technology to increase the amount of recyclable waste. Another problem has been in separating recyclable and non-recyclable material, which householders have been placing in their recycle bins.

The company has been seeking financial support from the local and international community in order to carry out its research program to improve the technology of the industry. Hearing of the company's need, the well-known environmentally conscious philanthropist, Richard Rich, decided to donate $1 000 000 to the company for the purpose of continuing its research activities. All that he asked was that the money was spent wisely, and that the company provided him with financial statements after each 6 months, showing how the money was spent and how the research was progressing.

The company accepted the money gratefully and was happy to comply with Rich's wishes; the managing director believed that Rich may be prepared to donate more money in future if technological progress could be shown to occur.

When Rich's cheque for $1 000 000 arrived, there was considerable disagreement among the accounting staff as to how this transaction should be recorded. One accountant believed that the money should be treated as revenue; another argued that it should be regarded as a type of capital account, and called 'donated capital'.

Required

Advise the managing director of Recyclers Ltd of the best accounting treatment. Present reasons for your answer.

COMMUNICATION AND LEADERSHIP

Companies — online resources

Assign one of the following websites to each group of 3 or more people.

- www.comlaw.gov.au: Investigate the procedures that are required under the ***Corporations Act 2001*** to establish a small proprietary company.
- www.asx.com.au: Investigate information about the role of the Australian Securities Exchange in society.
- www.asx.com.au: Investigate the Asx Listing Rules and what is required for a company to have its shares listed on the Australian Securities Exchange.
- www.asic.gov.au: Investigate the role played by the Australian Securities and Investments Commission in regulating company behaviour.

FINANCIAL ANALYSIS

Refer to the consolidated financial statements in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, especially the statement of changes in equity, and answer the following questions.

1. How many ordinary shares have been issued by the company at financial year-end?
2. Are any of the company’s issued shares not fully paid at the end of the financial year? If so, provide details.

3. Has the company issued any shares over the last 2 financial years? If so, provide details of those shares.
4. What is the amount of cash that has flowed to the company from share issues over the last 2 financial years (see the statement of cash flows)?
5. List the different types of reserves, and their amounts, recognised by JB Hi-Fi Limited in its consolidated statements at the end of the financial year.
6. Provide details of any movements in these reserves over the last financial year.
7. How much has been paid in dividends on all shares in the current financial year? Determine the amount of dividends recommended to shareholders at the end of the year.

Part 4

Accounting regulation of assets and liabilities

CHAPTER 10

Regulation and the *Conceptual Framework*

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the nature and basic objectives of accounting (pp. 8–10)
- basic assumptions used by accountants in the preparation of financial statements (pp. 44–8)
- the importance of ethics in the exercise of an accountant's duties (pp. 20–2)
- the difference between financial accounting and management accounting (pp. 14–15).

Learning Objectives

After studying this chapter you should be able to:

1 describe the development of accounting regulation in Australia resulting in the issue of accounting standards (pp. 430–7)

2 explain the nature of the ***Conceptual Framework for Financial Reporting***, and the history of the development of the framework (pp. 438–9)

3 describe the nature of a reporting entity under the ***Conceptual Framework*** (pp. 439–42)

4 describe the objectives of general purpose financial reporting under the ***Conceptual Framework*** (pp. 442–4)

5 identify the qualitative characteristics for the selection and presentation of financial information (pp. 444–8)

6 define assets, liabilities, equity, income and expenses, as established under the ***Conceptual Framework*** (pp. 449–52)

7 describe the recognition criteria, established in the ***Conceptual Framework***, for assets, liabilities, income and expenses (pp. 452–8)

8 explain the importance of measurement in the preparation of financial statements (pp. 458–60).

Perfect storm: The unstable, uncertain state of non-financial reporting

Is financial reporting headed for a perfect storm?

In the long history of corporate disclosure and its regulation, the most significant impetus for change would seem to be crisis, usually a catastrophic market misalignment or significant corporate collapse.

The two occasionally occur together in a perfect storm with the comfortable certainty of our infallibility totally deserting us, as was the case with the global financial crisis. Other larger, more subtle, crises manifest where the belief that we can defer the negative consequences of our systems of wealth creation to the far distant future prove to be illusory.

Climate change and biodiversity loss are the most often identified forms of environmental stress driving strategies to avert looming disaster. Adaption initiatives are not merely the province of governments. Business is often recognised as the conduit through which adaption can occur. Increasingly, business is required to take a leadership role in the face of government inertia or the absence of appropriate resource.

Climate change policy is mentioned not so much to illustrate the difficulty in achieving bipartisan consensus around policy outcomes and the consequent cost of uncertainty generated for Australian business. Rather, to emphasise the complexity of factors that coalesce to drive transformation in business practice and associated disclosure. Just to be certain, when making reference to corporate disclosure, we refer to the rich tapestry of information for which company boards are responsible and which is presented in the market and public domains.

Statutory financial reporting is no doubt a vital component, though coexisting with a range of other statutory or marketregulatory requirements, many of which are accompanied by substantial enforcement processes. Over and above this are voluntary disclosures, mainly stimulated, we would hope, by notions of best practice and enlightened self-interest.

Change can be fragmented and its source and nature often not readily predictable. Complexity is a reality which must be managed within existing and emerging governance practices and frameworks. The challenge then for corporate disclosure is to maintain a strong alignment with internal business practice and performance. This is particularly so across what is now an expanding range of subject matter and an increasing number of channels of disclosure.

Changes in the way corporations are governed, be it by reference to black-letter law, voluntary codes or rules of market participation, do not always occur in an orderly fashion. Nor is corporate governance an abstract concept remote from the context in which business operates. The evolving form and structure of corporate reporting as one of the key elements of corporate governance clearly conforms with these patterns. The landscape of corporate disclosure will continue to be subject to shifts and upheaval, and it is nigh on impossible to say when a stable settled outcome will be achieved, if at all.

But what we do have as a legacy of the global financial crisis is a consensus that corporations and the societies in which they have formal and informal licenses to operate are best served through transparent and efficient flows of information. Moreover, there is clear recognition that this information is both quantitative and qualitative, and is historical and prospective in nature. Reflecting lessons learned from the global financial crisis, a prominent theme is the communication of processes for identifying and mitigating risk. Other evident drivers of change arise from maturing understanding of supply-chain impact and development in externality measurement, particularly in relation to biodiversity.

Drawing perhaps from the long history of development in financial reporting, there has been much talk of supposed ideals of harmonization and convergence, and the seeking of conceptual frameworks which articulate such ideas as audience, materiality, boundary and decision utility. But translation into actual instruments of governance regulation and guidance remains heavily jurisdiction-based. We are nonetheless witnessing increased levels of prescription and extension of scope of subject matter. This is taking place in relevant mechanisms such as ‘report or explain’ corporate governance disclosures and directors’ statutory-based reviews of operations. As many will be aware, in August the ASX (Australian Stock Exchange) [sic] released a proposed third edition of its Corporate Governance Principles and Recommendations. Aside from some advancement in disclosures on risk, a significant element of the proposal is the elevating of existing components of commentary into ‘Recommendation’, thus making them subject to ‘if not, why not’ explanation. This follows on from ASIC’s (Australian Securities and Investment Commission) release in March of new regulatory guidance for listed entity operating and financial review disclosures.

Whilst the relevant law has remained unaltered, there is clear expectation from ASIC that corporate practice is in need of improvement.

Source: Excerpts from Purcell, J 2013, ‘Perfect storm: The unstable uncertain state of non-financial reporting’, ***InTheBlack***, 11 October.

Chapter preview

This chapter introduces the current regulatory arrangements in Australia for the development of accounting standards. Such standards are variously influenced by many interested parties, including the government, professional accounting bodies, representatives of those who prepare financial statements for publication (such as the Institute of Directors, the Group of 100), and international accounting standard-setting bodies. The chapter also discusses the basic accounting concepts such as assets and liabilities developed as part of ***The Conceptual Framework for Financial Reporting*** (the ***Conceptual Framework***). The ***Conceptual Framework*** has been the source of much discussion and controversy among preparers of financial statements, as it has heavily influenced the accounting standards issued by the International Accounting Standards Board (IASB), which have been adopted for use in Australia by the Australian Accounting Standards Board (AASB), a body established by the Australian Government.

At the time of writing, the IASB is undertaking a project to revise and renew the existing conceptual framework. This is a long-term project which will take several years to complete. Any amendments and suggested amendments to the conceptual framework made by the IASB have a flow-on effect in Australia; hence, the proposals and recommendations to update the current ***Conceptual Framework*** are incorporated into this chapter where available. However, up-to-date information should be sourced directly from the IASB website, www.ifrs.org, as the project is constantly evolving.

10.1 Regulation and development of accounting standards

LO 1 **Describe the development of accounting regulation in Australia resulting in the issue of accounting standards.**

Brief history of regulation

Accounting has evolved through time, changing with the needs of society. As new types of transactions evolved in business, accountants developed rules and practices for recording them. These accounting practices came to be known as ***generally accepted accounting principles*** (GAAP). GAAP consist of rules, practices and procedures, the authority of which stems from their general acceptance and use by the accounting profession and the business community. They have evolved from the experiences and thinking of members of the accounting profession and influential businesspeople.

In spite of the gradual development of GAAP in the profession, a need for the development of more rigid, compulsory accounting standards was recognised. This need had its beginnings with the growth of industrialised society in the nineteenth century. During this time, the company form of organisation was born and with it the separation of ownership from management. Management was appointed as an agent of the owners (shareholders) of the company to conduct the day-to-day operations with a view to earning profits for the owners.

As business organisation became more complex, different levels of management came into existence. Consequently, financial reporting became important, so that lower levels of management could report to higher levels (internal reporting) and top management could report on the entity's progress to the owners (external reporting). In particular, external users of information had to rely on the honesty and integrity of management in the use of the owners' money; but, for various reasons, corporate secrecy was considered to be acceptable behaviour. Consequently, share investments gained the reputation of being risky investments, and shareholders were, to some extent, at the mercy of potentially unscrupulous management.

To provide some protection for shareholders, governments began to legislate for the preparation of a balance sheet (statement of financial position) by companies in order to monitor the behaviour of managers as stewards of the shareholders' funds. The Victorian Government was particularly active and was the first in Australia to legislate for the presentation of both a balance sheet and an income statement for companies. It was not until the 1940s that the first attempt was made by the accounting profession in Australia to provide guidance as to the content of these statements, when the Institute of Chartered Accountants in Australia (ICAA) adopted a series of recommendations developed in the United Kingdom by the equivalent professional body in England and Wales. These recommendations were not compulsory, and were basically ignored by many entities.

After a series of company failures in the late 1950s and early 1960s, which caused many shareholders to lose considerable savings, much criticism was directed towards the content of externally reported financial statements. This led to the formation of the Australian Accounting Research Foundation (AARF) and the attempt by professional accounting bodies to establish a set of accounting standards for presenting external financial reports. However, compliance with these accounting standards was hard to achieve, as many companies chose merely to ignore them.

Consequently, in 1984, the Australian Government stepped into the standard-setting process to approve accounting standards and to ensure compliance with them. This was achieved by establishing an Accounting Standards Review Board (ASRB), which was replaced in 1991 by the Australian Accounting Standards Board (AASB). The Australian Government is active today in the standard-setting process and, in 1997, the responsibility for the development of accounting standards was handed to the Treasurer. In 2000, the Treasurer at the time reorganised the standard-setting process by establishing the Financial Reporting Council (FRC) to provide strategic directions for the AASB.

Thus, the development of accounting principles became a significant political program among members of the profession, business enterprises and their representatives, and the Australian Government. This has led to GAAP being formalised gradually as accounting standards. The Australian Government today, by way of the FRC, requires the AASB to adopt International Financial Reporting Standards (IFRSs) issued by the IASB for use in the general purpose financial statements and reports of Australian companies and other institutions. The IASB's standards, however, are directed solely towards profit-making enterprises; hence, the AASB, which is also responsible for issuing accounting standards for use in the public and not-for-profit sectors, is required to adapt the IASB's standards for use in these other sectors as well. **Accounting standards** in Australia therefore are issued for ***all*** types of entities — business, public sector entities and not-for-profit entities.

Following the election of the Labor government in late 2007, the responsibility for managing the standard-setting process in Australia was taken away from Treasury and passed to the Minister for Financial Services, Superannuation and Corporate Law, who is directly responsible for appointing the Chair of the AASB. This followed, in 2006, the establishment of the Accounting Professional & Ethical Standards Board Limited (APESB) as an initiative of the Institute of Chartered Accountants in Australia (ICAA) and CPA Australia. The Institute of Public Accountants (IPA) has subsequently become a member. The APESB is an independent body responsible for setting the code of ethics and the professional standards by which the members of these professional accounting bodies are required to abide. The APESB issues and reviews the professional and ethical standards and guidance notes for the benefit of practising accountants. The requirements of these standards are mandatory for all members of the professional accounting bodies. The standards of practice relate to ethical issues, compliance with accounting standards, quality control in accounting practices and aspects of tax practice, trust accounts, insolvency practice, forensic accounting and management advisory services. For additional information, visit the website of the APESB (www.apesb.org.au).

In summary, financial accounting practice in Australia is determined mainly by the application of accounting standards issued by the AASB, which are developed within the context of IFRSs issued by the IASB. Accounting standards in Australia are generated within a government institutional framework, which includes the FRC and the AASB. In addition, the APESB influences the ethical behaviour and integrity of professional accountants in this country. Finally, accounting and reporting practices are influenced by the Australian Securities and Investments Commission and the Australian Securities Exchange. These are discussed overleaf.

Financial Reporting Council

The Australian Government, by way of the ***Australian Securities and Investments Commission Act 2001***, established the Financial Reporting Council (FRC). The role of the FRC is to act as an overseer and advisory body to the accounting standard setter, the AASB, and to the auditing standard setter, the Auditing and Assurance Standards Board (AUASB). Membership of the FRC consists of representatives of professional, business and government organisations with an interest in the standard-setting process. The FRC's brief is to appoint members of the AASB and the AUASB, and approve and monitor the priorities, business plan, budget and staffing arrangements for both boards. In the context of accounting standards, the FRC is required to determine the AASB's broad strategic directions and to encourage the AASB to issue and adopt accounting standards which represent internationally accepted best practices if doing so would be in the best interests of the Australian economy. The FRC is also required to monitor the operation of Australian accounting standards to ensure their continued relevance and effectiveness in achieving their objectives.

In line with the FRC's main function of overseeing the process of setting accounting standards, the chairman of the FRC announced in July 2002 that, after 1 January 2005, the AASB was required to adopt IASB standards. This followed developments in the European Union (EU) which required EU listed companies that were preparing consolidated financial statements of the parent and subsidiary companies to adopt accounting standards and financial reporting standards issued by the IASB. Furthermore, company audits were to be performed in such a way as to comply with IASB standards. The FRC argued that a single set of high-quality accounting standards that are accepted in international capital markets would greatly help cross-border comparisons by investors, reduce the cost of capital, and help Australian companies wishing to raise capital or list their shares on overseas stock markets.

Australian Accounting Standards Board

In January 1984, the Australian Government established the Accounting Standards Review Board (ASRB). The role of the ASRB was to issue accounting standards applicable to companies in the private sector, and legislative backing was given to these standards. All companies were required to comply with accounting standards approved by the Board unless it could be shown that such compliance would not provide a true and fair view of the affairs of the company. Approval of standards by the Board was not restricted solely to those issued by the professional accounting bodies. The two major professional bodies, as well as providing resources through the AARF to the ASRB, were represented on the Board.

With the introduction of the Corporations Law in 1991 (now the ***Corporations Act 2001***), the ASRB was replaced by the Australian Accounting Standards Board (AASB). It was then a requirement for companies to prepare their financial reports so as to comply with ***all*** applicable accounting standards issued by the AASB. If a company's directors felt that complying with all applicable accounting standards did not reflect a true and fair view of the company's state of affairs, then additional disclosures were required so that the company's financial statements did provide a true and fair view. The use of this is, however, very rare.

The AASB was responsible for developing accounting standards relating to the preparation of financial reports. The work of the AASB gave rise to the AASB series of accounting standards, or AASB standards.

The reorganisation of the AASB in 2000 and the formation of the FRC brought significant reforms to the standard-setting process in Australia. The aim of these reforms was to provide a standard-setting process that was economically efficient and beneficial to Australian business operating in a global environment. It was also expected that the standard-setting process would be more efficient in time, as the AASB had previously been taking up to 3 years before a standard was issued on a particular topic.

After the announcement by the FRC regarding adoption of IASB standards, the following occurred.

- The AASB began a program of developing a set of Australian accounting standards that, when applied by Australian entities, enabled those entities to assert that their financial statements comply with the IASB's accounting standards. The Australian accounting standards and their international counterparts are identical, with three exceptions:
  - Some Australian accounting standards require more information to be disclosed in the financial statements and in notes to those statements than is required by the equivalent IASB standard.

  - Australian accounting standards contain, where applicable, extra paragraphs relevant for entities in the public and not-for-profit sectors. IASB standards are written for application within the business profit sector only. The AASB has continued to issue additional accounting standards relevant to the public sector, as well as accounting standards where no equivalent IASB standard exists, e.g. AASB 1031 ***Materiality***.
  - Other differences between Australian standards and the IASB's standards may arise as a result of the AASB's legal obligations that require the AASB to issue accounting standards that facilitate the Australian economy by reducing the cost of capital, and allowing Australian entities to compete effectively overseas. If the AASB amends IASB standards for issue in Australia to achieve these purposes, then the Australian standards will not comply with the IASB's standards, and statements to this effect need to be included in the amended standards.
- In July 2013, the IASB released a discussion paper titled 'A review of the conceptual framework for financial reporting'. The purpose of this discussion paper is to obtain feedback from interested parties on the future development of the conceptual framework. Once comments have been received by IASB these will be used to prepare an Exposure Draft for a revised conceptual framework. Therefore, the discussion paper is the first step towards a revised conceptual framework.

Meetings of the AASB are held in public, so that the process of standard setting is open for all to see. Further details on the AASB and its current work program are available from the AASB website, www.aasb.com.au (see figure 10.1 for a screen shot of the website).

Figure 10.1 AASB website, www.aasb.com.au

Australian Accounting Standards Board

Developing, issuing and maintaining Australian Accounting Standards and related pronouncements

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- The AASB approved amending Standard AASB 2013-9 *Amendments to Australian Accounting Standards – Conceptual Framework, Materiality and Financial Instruments* on 20 December 2013. AASB 2013-9 incorporates the IASB's Standard IFRS 9 Financial Instruments (Hedge Accounting and amendments to IFRS 9, IFRS 7 and IAS 39). Read More
- The Australian Accounting Standards Board (AASB) has approved a new Standard applying to superannuation entities, which is subject to fatal flaw review. Read More
- The fourth and final batch of new compiled versions of Standards and Interpretations that apply to annual reporting periods beginning on or after 1 January 2013 has now been published on the AASB website. Compilations of AASB 1038 for periods ending on or after 31 March 2013 have also been published. Read More
- The AASB has updated its work program as at 17 December 2013.

Quick Links

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Australian Securities and Investments Commission

The Australian Securities and Investments Commission (ASIC) was established by the Australian Government in 1989, and in 1990 ASIC was given the task of administering company law throughout Australia. ASIC does not determine accounting standards, but is concerned with ensuring that companies comply with the requirements of AASB accounting standards when providing information in their financial reports.

According to the ASIC website (www.asic.gov.au), ASIC contributes to Australia's economic reputation and wellbeing by ensuring that Australia's financial markets are fair and transparent and supported by confident and informed investors and consumers. The ***Australian Securities and Investments Commission Act 2001*** (the ASIC Act) requires ASIC to:

- maintain, facilitate and improve the performance of the financial system and entities in it
- promote confident and informed participation by investors and consumers in the financial system
- administer the law effectively and with minimal procedural requirements
- enforce and give effect to the law
- receive, process and store, efficiently and quickly, information that is given to it
- make information about companies and other bodies available to the public as soon as practicable.

Under the ASIC Act, ASIC also has the function of monitoring and promoting market integrity and consumer protection in relation to the Australian financial system. Hence, as part of its response to the global financial crisis, the Australian Government, in late 2010, required ASIC to take over the overseer role from the Australian Securities Exchange (ASX) in relation to Australia's securities markets. Unlike the ASX, which is a public company, ASIC, which is an independent government body, now has the responsibility for supervising real-time trading on Australia's domestic licensed markets and for enforcing laws against misconduct on Australia's financial markets. This has allowed ASIC to investigate directly investors for misconduct in the market. As part of the takeover, ASIC has developed a set of Market Integrity Rules (MIR) that apply to market operators, market participants, other prescribed entities and financial products traded on the relevant markets. These rules are periodically revised and updates are published on the ASIC website. ASIC has also established a Market Disciplinary Panel to impose penalties and require remedial action, if necessary, for any breaches of these rules.

Australian Securities Exchange

The Australian Securities Exchange (ASX) also influences accounting. The ASX is concerned with improving disclosure in financial reports of companies listed on the various exchanges throughout Australia. It has included in its Listing Rules a number of disclosure requirements and other regulations with which a listed company must comply if it wishes to continue to have its shares traded on the stock exchange.

The ASX has played a very significant part in influencing the regulatory program for the development of accounting standards in Australia, especially in the late 1990s. In 1996, the ASX agreed to provide resources to the AASB on the assumption that the AASB would undertake a program of international harmonisation to bring Australian standards into line with international accounting standards so that compliance with Australian standards meant automatic compliance with those. The ASX's push towards the use of international standards was given strong support from companies in Australia, particularly large multinational companies, and the Group of 100 (G100), an organisation representing the top 100 companies in Australia.

International Accounting Standards Board (IASB)

In 1973, the International Accounting Standards Committee (IASC) was formed to develop a set of international accounting standards to be used by those countries that wished to do so. Membership of the IASC consisted of representatives of several professional accounting bodies throughout the world.

The IASC issued accounting standards over a 27-year period until it was replaced in 2001 by the IASB. The main reason for replacement was that the IASC's standards allowed too many alternatives and it was felt that international accounting standards should be of a higher quality if they were to be accepted and used for the purpose of listing a company's shares on securities exchanges around the world.

The globalisation movement of the 1990s initiated the perceived need for a set of global accounting standards. The IASC was considered to be in the best position to undertake such a task, provided that membership of the IASC was representative of accounting standards boards, rather than of professional accounting bodies, across national borders. Consequently, the IASC Foundation (now the IFRS Foundation) was born with a new constitution (published in March 2000 and subsequently revised) which established the International Accounting Standards Board (IASB) to replace the IASC. Thus, the IASB is the independent standard-setting body of the IFRS Foundation (more information about the respective roles and functions of these bodies can be found on the website of the IFRS Foundation, www.ifrs.org).

The IASB has members drawn from national standard setters across a wide geographical base: some must be practising auditors, others must be preparers of financial statements, and others must have a background as users of financial statements. Several of these members are expected to liaise with national standard setters in various countries. Refer to the IASB's website to view its mission statement.

Following the direction given by Australia's FRC in 2002, the AASB was required to adopt IFRSs issued by the IASB as from 1 January 2005. Hence, the financial statements prepared by Australian companies are in line with those prepared by entities in other countries which also have adopted IASB standards. This should allow for greater comparability and understanding of financial statements worldwide, and lead to a more efficient flow of capital resources across national boundaries.

The IFRS Interpretations Committee

Established in December 2001, the IFRS Interpretations Committee (formerly the International Financial Reporting Interpretations Committee (IFRIC)) is a subcommittee of the IASB. The mandate of the committee is to 'review on a timely basis widespread accounting issues that have arisen within the context of current IFRSs and to provide authoritative guidance on those issues' (www.ifrs.org). Therefore, the IFRS Interpretations Committee handles issues of collective importance, rather than issues of concern to only a small set of entities. The interpretations cover:

- newly identified financial reporting issues not specifically covered by international financial reporting standards (IFRSs) issued by the IASB
- issues where unsatisfactory or conflicting interpretations have developed, or are likely to develop in the absence of authoritative guidance, to try to reach consensus on the appropriate treatment.

Australia's AASB adopted the interpretations issued by the IFRS Interpretations Committee for use by companies in this country as from 1 January 2005.

As a result of adopting international standards, Australian accounting standards come, via the AASB, from three sources.

- Standards that are Australian equivalents of:
  - international accounting standards (IASs) — these standards were originally issued between 1973 and 2001 by the IASC, the forerunner of the IASB, and are now part of the IASB's standards; in Australia, these standards have titles beginning with the format AASB 101, AASB 102, etc.
  - International Financial Reporting Standards (IFRSs), which are the standards issued by the IASB since its inception in 2001; in Australia, the equivalent IFRS begins with AASB 1, AASB 2, etc.
  - interpretations issued by the IFRS Interpretations Committee.
- Other Australian accounting standards issued by the AASB, for which there are currently no equivalent standards issued by the IASB, e.g. AASB 1031 ***Materiality***. Some of these standards apply exclusively to the not-for-profit sector.

- Interpretations issued by the old Urgent Issues Group (UIG) to the extent that there are no equivalent IFRS interpretations. The UIG was a subcommittee of the AASB established in 1994 to provide solutions relatively quickly to accounting problems which confronted practitioners from time to time. The UIG was dissolved in 2006 and the task of adopting IFRS interpretations is now part of the role of the AASB. However, some of the old UIG's interpretations dealt with issues peculiar to the legal environment in Australia, e.g. Interpretation 1031 ***Accounting for the Goods and Services Tax (GST)***, and these interpretations have been retained and are now issued by the AASB, in accordance with accounting standard AASB 1048 ***Interpretation of Standards***.

Financial Accounting Standards Board (FASB)

Since 1973, the most active and well-known accounting standard-setting board in the world has been the Financial Accounting Standards Board (FASB), the body responsible for issuing accounting standards in the United States. Because of the size and strength of the US capital market, the FASB has been arguably the most powerful and well-organised body in the standard-setting arena.

On 29 October 2002, the FASB announced that it had signed an agreement (known as the Norwalk Agreement) with the IASB. The Norwalk Agreement required both bodies to work together towards one set of compatible, global accounting standards. The aim was to agree on high-quality solutions to existing and future accounting issues and to converge their existing standards as soon as is practicable. Commitment to the principles of the Norwalk Agreement was reaffirmed in 2005 and again in 2008 when the FASB and

IASB signed a Memorandum of Understanding regarding the convergence of US generally accepted accounting principles (GAAP) and the IFRSs. It is hoped that there will be one set of high-quality global accounting standards as the IASB and the FASB work towards achieving their long-term strategic priority.

The potential for achieving one set of global standards is high, because IFRSs have been adopted not only by Australia, but also by the European Union, Hong Kong, South Africa, and New Zealand. Other countries that have decided on convergence in the future include Canada, India, Korea, Japan, China and Brazil. Significantly, even the US Securities and Exchange Commission (SEC) has allowed non-US companies to issue financial statements in the United States without having to reconcile these financial statements to US GAAP (as reported in an IASB press release on 15 November 2007; see the IASB website).

The FASB is also subject to the directions of the SEC in the United States. In November 2008, the SEC proposed a 'roadmap' to evaluating the further role of IFRSs in the US capital markets. The roadmap proposed that the SEC could be in a position in 2011 to decide whether to require the use of IFRSs by US companies beginning in 2014. However, the IASB expressed disappointment that the staff report issued by SEC in July 2012 did not outline an action plan for convergence. The FASB and IASB in June 2010 (see the FASB and IASB websites) reaffirmed their commitment to improving and converging their respective accounting standards.

The Asian-Oceanian Standard-Setters Group (AOSSG)

A further development towards the establishment of global accounting standards came in November 2009 when the Asian-Oceanian Standard-Setters Group (AOSSG) was formed. Initiated by China, Japan and Korea, the AOSSG was formed by a group of 21 standard-setting bodies which adopted a memorandum of understanding with the aim of taking agreed views to the IASB. As reported in 'New regional clout' (***InTheBlack*** 2010), the memorandum specified the following objectives:

- promoting the adoption of and convergence with IFRS by jurisdictions in the region
- promoting consistent application of IFRS in the region
- coordinating input from the region to the technical activities of the IASB
- cooperating with governments and regulators and other regional and international organisations to improve the quality of financial reporting.

There was a feeling among members that the IASB was too influenced by the developed countries of Europe and the United States in the standard-setting process. The AOSSG is seen as an important new group which will influence the IASB to consider the issues of the Asia–Oceania region in the standard-setting process. With the growth of market economies in this region, the AOSSG will develop as an important influential voice in the future. Included in the inaugural 21 members of the AOSSG are not only the initiators, China, Japan and Korea, but also Australia, New Zealand, Indonesia, Malaysia, Singapore, Thailand, India, Sri Lanka, Saudi Arabia, Turkey and others.

As a result of the move towards global accounting standards, the standard-setting process around the world has been largely removed from national standard setters (such as the AASB in Australia) and is currently in the hands of the IASB, with significant influence from the FASB. Australia's AASB now has the role of adopting standards issued by the IASB, with minimal input to the development of such standards.

For further information, visit the various websites of the organisations involved in accounting regulation:

- Australian Accounting Standards Board: www.aasb.com.au
- International Accounting Standards Board: www.ifrs.org
- Financial Accounting Standards Board: www.fasb.org
- Australian Securities and Investments Commission: www.asic.gov.au
- Group of 100 Inc.: www.group100.com.au
- Australian Securities Exchange Ltd: www.asx.com.au
- Asian-Oceanian Standard-Setters Group: www.aossg.org

BUSINESS KNOWLEDGE

What does 'International Convergence of Accounting Standards' mean?

The phrase international convergence of accounting standards refers to both a goal and the path taken to reach it.

The FASB believes that, over time, the ultimate goal of convergence is the development of a unified set of high-quality, international accounting standards that companies worldwide would use for both domestic and cross-border financial reporting.

Until that ultimate goal is achieved, the FASB is committed to working with other standard-setting bodies to develop accounting standards that are as converged as possible without forgoing the quality demanded by U.S. investors and other users of financial statements.

From 2002 to 2013, the path toward convergence has been the collaborative efforts of the FASB and the International Accounting Standards Board (IASB) to both improve U.S. Generally Accepted Accounting Principles (U.S. GAAP) and International Financial Reporting Standards (IFRS) and eliminate or minimize the differences between them.

As the FASB and the IASB complete their work on the last of their joint standard-setting projects initially undertaken under the 2006 Memorandum of Understanding (MoU), that process will evolve to include cooperation and collaboration among a wider range of standard setters around the world.

Moving forward, the FASB will continue to work on global accounting issues with the IASB through its membership in the Accounting Standards Advisory Forum (ASAF), a newly established advisory body comprising twelve standard setters from across the globe.

Source: Excerpts from FASB 2012, ‘International convergence of accounting standards — overview’, 5 April, www.fasb.org.

LEARNING CHECK

- ☐ The Australian Accounting Standards Board (AASB), operating under the direction of the Financial Reporting Council, is responsible for developing accounting standards in Australia.
- ☐ The AASB’s standards are adoptions of the accounting standards issued by the International Accounting Standards Board (IASB), with modifications made for government and the not-for-profit sector.
- ☐ The role of the Australian Securities and Investments Commission (ASIC) is to administer company law throughout Australia.
- ☐ One of the roles played by the Australian Securities Exchange (ASX) is to improve disclosure in the financial reports of companies listed with the ASX.
- ☐ The IASB and the Financial Accounting Standards Board (FASB) of the United States are working together towards achieving one set of high-quality, global accounting standards.

10.2 The Conceptual Framework

LO 2 Explain the nature of the *Conceptual Framework for Financial Reporting*, and the history of the development of the framework.

Business managers, investors, creditors, government boards and agencies, and other outside parties use accounting information to make decisions concerning the allocation of scarce resources. These decisions have a significant effect on the whole of society since they affect the form and direction of the economy. The effectiveness of decision makers is enhanced if they have information that has several important characteristics. For example, is the information relevant for economic decision making? Do the users find the information about the entity understandable and comparable with previous periods as well as with other entities? Accountants need a framework or a theory to guide them in developing accounting standards for preparing financial statements and reports that contain information exhibiting important characteristics such as relevance, understandability and comparability.

Considerable emphasis has been given in the last 50 years to the development of accounting standards governing accounting and reporting practices used in preparing an entity’s financial statements and reports. Until 1984, the development of these standards in Australia was chiefly in the hands of the accounting profession. However, since accounting standards have an impact on the decisions made by society as a whole, the task of issuing accounting standards for companies (and other entities) is now vested in the AASB, a government body, which has adopted accounting standards issued by the IASB.

Accounting standards are continually being reviewed and revised to keep up with the increasing complexity of economic activity, both in Australia and at international levels. Accounting standards are not fundamental natural laws like those of the physical sciences; they are requirements that attain their status through consensus among the accounting profession, government, preparers of financial reports (e.g. companies), user groups and other interested parties internationally. Sometimes, this consensus does not come easily, but is achieved through political compromise.

Given the increased regulation of the standard-setting process and the proliferation of standards, the need for an underlying theory or framework became evident. In order to provide a conceptual basis for the development of accounting standards, the AASB, along with similar developments at the FASB in the United States and at the IASB, worked towards the development of a conceptual framework for financial reporting. This development arose because accounting standards in the past were established on a problem-by-problem basis; and this basis was leading to inconsistent rules and regulations over time. It was hoped that development of a conceptual framework for financial reporting would enable regulators to:

- develop standards that were consistent and logically formulated
- provide guidance to accountants in areas where no standards exist
- enable users of financial reports to understand better the standards developed.

In essence, the conceptual framework project is an attempt to derive a theory for determining the information to be provided in financial reports.

Background to development of the *Conceptual Framework*

In developing the conceptual framework for financial reporting, there have been a number of important steps taken by the AASB in the Australian context. Step 1 was to delineate the boundaries of financial reporting in that the conceptual framework was to deal only with ***general purpose*** financial reporting (as explained later on pages 442–4). Step 2 was to define the reporting entity. This second step established the criteria by which a reporting entity is recognised to exist, in order to determine which entities should prepare general purpose financial reports. Step 3 was to establish the objectives of general purpose financial reporting. This step also identified the users of financial reports, their information needs, and the types of reports which best meet those needs.

Step 4 used the broad framework established in the first three steps to develop the qualitative characteristics of financial information (relevance etc.), the elements of the reporting processes (e.g. assets, liabilities, equities, income, expenses), and recognition and measurement of those elements.

The AASB developed four statements of accounting concepts (SACs) in the 1990s, namely:

- SAC 1 ***Definition of the Reporting Entity*** (issued 1990)
- SAC 2 ***Objective of General Purpose Financial Reporting*** (issued 1990)

- SAC 3 ***Qualitative Characteristics of Financial Information*** (issued 1990, withdrawn 2005)
- SAC 4 ***Definition and Recognition of the Elements of Financial Statements*** (issued 1992, withdrawn and reissued 1995, withdrawn 2005).

However, the AASB was not the only national standard setter to develop a conceptual framework for general purpose financial reporting. The FASB in the United States and other standard setters in Canada, New Zealand and South Africa, as well as the IASB, also devoted considerable resources to establishing such frameworks for their own use. There were several similarities and differences among the frameworks as developed by the AASB, the FASB and the IASB, which have contributed towards many similarities and differences among the accounting standards developed by these bodies.

Australia's adoption in 2005 of the IASB's international accounting standards meant that the AASB also rejected part of its own framework (namely SAC 3 and SAC 4) and adopted the IASB's ***Framework for the Preparation and Presentation of Financial Statements***. In September 2010, the IASB reissued its framework document under the title ***The Conceptual Framework for Financial Reporting*** (the ***Conceptual Framework***)***,*** following consultation with the FASB. Nevertheless, the AASB has retained both SAC 1 and SAC 2 for use in the Australian context, as these documents provide considerably more detail about the reporting entity concept and wider objectives than is evident in the ***Conceptual Framework***. It is expected that, when the IASB makes further revisions to its framework in the future in cooperation with the FASB, these revisions will be adopted in Australia. This will lead eventually to the AASB also rejecting SAC 1 and SAC 2. In the following sections, we discuss the basic content of SACs 1 and 2 and the qualitative characteristics and elements as specified in the IASB's ***Conceptual Framework***.

Proposed additional changes to the ***Conceptual Framework*** as a result of the IASB's project are also referred to in this chapter. The overall objective of the IASB project is to develop a common framework that is both complete and internally consistent. The IASB wants to develop a framework that will provide a sound foundation for developing future accounting standards that are principles-based, internally consistent, internationally converged, and lead to financial reporting that provides the information needed for investment, credit and similar decisions.

LEARNING CHECK

☐ Standard setters in various countries developed their own conceptual frameworks in order to improve financial accounting and reporting.

☐ Documents currently used in Australia as the conceptual framework for the AASB are SAC 1 and SAC 2, both developed by the AASB in the 1990s, and the ***Framework***, which is based on the former conceptual framework document of the IASB.

10.3 The reporting entity

LO 3 **Describe the nature of a reporting entity under the *Conceptual Framework*.**

Questions have arisen in the past as to which entities need to publish financial reports and which do not. The purpose of SAC 1 ***Definition of the Reporting Entity*** is to define and explain the concept of a **reporting entity**, and to establish a benchmark for the minimum required quality for financial reporting by such an entity. A reporting entity is defined in SAC 1 as an entity in which it is reasonable to expect the existence of users who depend on general purpose financial reports for information to enable them to make and evaluate economic decisions. SAC 1 suggests a number of indicators to help assess when dependent users exist and hence when an entity is a reporting entity.

1. ***Separation of management from economic interest***. The greater the spread of ownership and the greater the extent of the separation between management and owners, the more likely it is that there will be users who depend on general purpose financial reports for decision making.
2. ***Economic or political importance/influence***. The greater the economic or political importance or influence of an entity, the more likely it is that dependent users will exist.
3. ***Financial characteristics***. The larger the size of an entity, or the greater the indebtedness of or resources allocated to an entity, the more likely it is that users who depend on general purpose financial reports will exist.

The implications of these indicators are that judgement is necessary in distinguishing reporting entities from non-reporting entities. Nevertheless, it is expected that reporting entities include most government departments, statutory authorities and boards, most public companies, some large proprietary companies and listed investment trusts. Non-reporting entities include most sole traders, partnerships and small proprietary companies. Nevertheless, there will be exceptions to these generalities based on a consideration of the indicators.

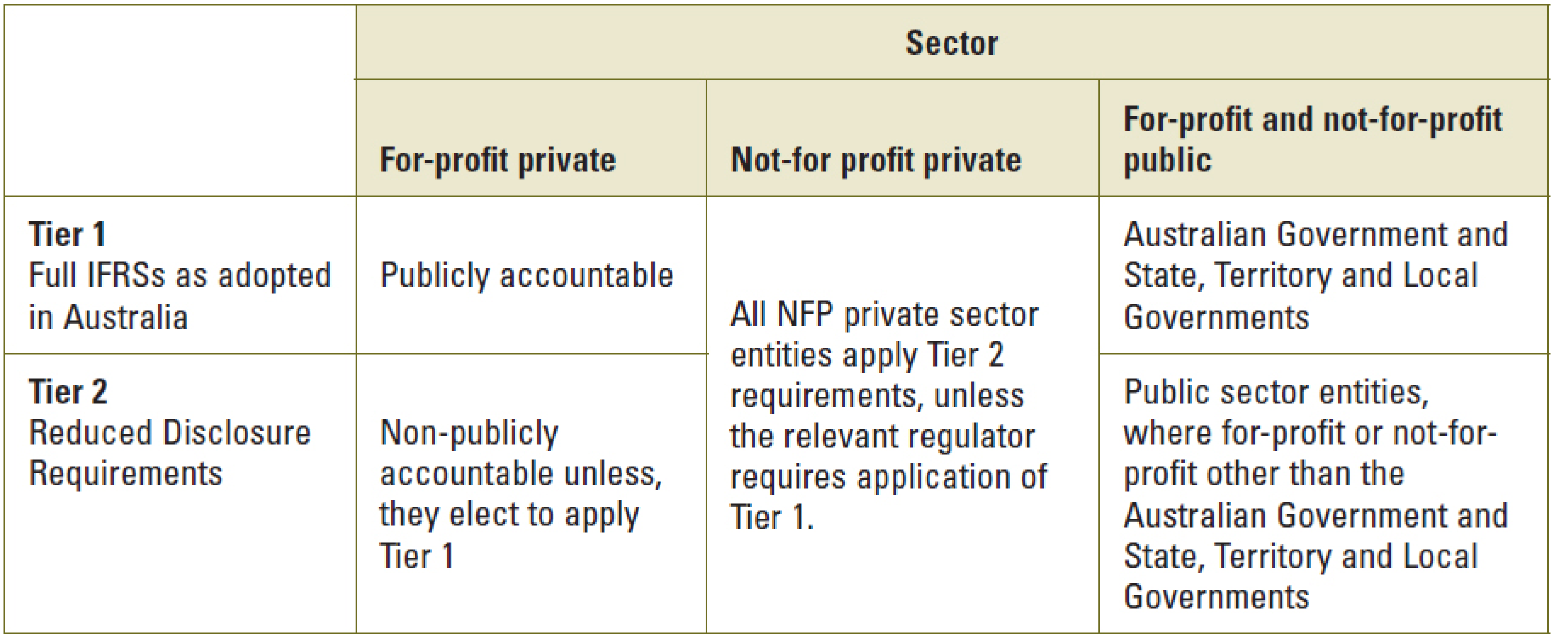
The reporting entity concept in SAC 1 has been included in Australian accounting standards, for example AASB 1053 ***Application of Tiers of Australian Accounting Standards;*** hence, it has become a definition which must be applied in practice. Reporting entities are therefore required to prepare general purpose financial statements that comply with the accounting standards and interpretations issued and adopted by the AASB. However, applying the reporting entity concept has become a problem for some because of the qualitative nature of the criteria. Some people in business prefer that a reporting entity is determined by applying a quantitative test such as 'does the entity have annual income greater than (say) $25 million, and assets greater than $12.5 million?' Such quantitative criteria are easy to apply but also potentially easy to avoid, as entities have incentives not to prepare financial reports consistent with accounting standards because of the potential costs involved in doing so. Others believe that the reporting entity concept is working well in the Australian business environment.

In 2007, debate arose as to whether the AASB should abandon the reporting entity concept specified in SAC 1. This followed the release of the IASB's Exposure Draft of a proposed IFRS for small and medium-sized entities (SMEs), published in February 2007, a document subsequently issued in 2009 by the IASB as ***International Financial Reporting Standards for Small and Medium-sized Entities (IFRS for SMEs)***. In May 2007, based on the IASB's 2007 Exposure Draft, the AASB issued Invitation to Comment ITC 12, proposing to revise the differential reporting regime in Australia by switching the focus away from whether an entity is or is not a reporting entity to whether the entity (subject to a size test) is required to prepare a general purpose financial report and is publicly accountable. **Public accountability** is defined in the IASB's ***IFRS for SMEs*** as:

> Accountability to those existing and potential resource providers and others external to the entity who make economic decisions but are not in a position to demand reports tailored to meet their particular information needs. An entity has public accountability if:
>
> **(a)** its debt or equity instruments are traded in a public market or it is in the process of issuing such instruments for trading in a public market (a domestic or foreign stock exchange or an over-the-counter market, including local and regional markets), or
>
> **(b)** it holds assets in a fiduciary capacity for a broad group of outsiders as one of its primary businesses. This is typically the case for banks, credit unions, insurance companies, securities brokers/dealers, mutual funds and investment banks.

The proposed implications of ITC 12 were that if an entity was publicly accountable or satisfied a size test, then it would be required to apply Australian equivalents to IFRSs in its general purpose financial reports. If an entity was not publicly accountable, or did not meet the size test, then the entity needed to apply the Australian equivalents to the IFRS for SMEs only. However, the AASB received negative comments on the proposals in ITC 12, particularly in relation to application of the size test, which was seen as arbitrary, and the fact that the public accountability test would appear to apply to all public sector entities irrespective of size. Hence, the AASB has tackled the problem differently by issuing AASB 1053 ***Application of Tiers of Australian Accounting Standards*** in June 2010, which has adopted a Tier 1 and Tier 2 system of financial reporting, to be applied on or after 1 July 2013. When preparing general purpose financial statements, those entities in Tier 1 shall apply full IFRSs as adopted in Australia, and those in Tier 2 can adopt Reduced Disclosure Requirements (RDRs). The RDRs involve compliance with the recognition and measurement requirements of IFRSs, as already adopted in Australia, but with disclosures substantially reduced compared with those that would be required under full IFRSs. Figure 10.2 summarises the key requirements of the standard.

Figure 10.2 Tiers 1 and 2 differential reporting requirements



	Sector		
	For-profit private	**Not-for profit private**	**For-profit and not-for-profit public**
Tier 1 Full IFRSs as adopted in Australia	Publicly accountable	All NFP private sector entities apply Tier 2 requirements, unless the relevant regulator requires application of Tier 1.	Australian Government and State, Territory and Local Governments
Tier 2 Reduced Disclosure Requirements	Non-publicly accountable unless, they elect to apply Tier 1		Public sector entities, where for-profit or not-for-profit other than the Australian Government and State, Territory and Local Governments

Source: Adapted from AASB, 'AASB 1053 ***Application of Tiers of Australian Accounting Standards***', www.aasb.com.au.

The AASB believes the RDRs are more appropriate for the Australian environment than the ***IFRS for SMEs*** proposal, on cost–benefit and user needs grounds. In essence, the RDRs use the same principles as those of the IASB when preparing the ***IFRS for SMEs***, in determining the reductions in disclosures. However, unlike the IASB's SME proposal, Tier 2 entities are required to comply with the full recognition and measurement requirements of IFRSs, which is expected to attract some disquiet as Tier 2 entities will have to invest significant effort to achieve such compliance. Those entities which adopt Tier 2 levels of disclosure will not be permitted to state that their financial statements comply with IFRSs.

Further significant developments in 2010 included the issuing of an Exposure Draft by the IASB and the FASB to improve the ***Conceptual Framework*** by adopting a new definition of the reporting entity. In March 2010, the AASB issued the IASB's exposure draft as ED 193 ***Conceptual Framework for Financial Reporting: The Reporting Entity***, in which a reporting entity is described as:

> a circumscribed area of economic activities whose financial information has the potential to be useful to existing and potential equity investors, lenders and other creditors who cannot directly obtain the information they need in making decisions about providing resources to the entity and in assessing whether management and the governing board of that entity have made efficient and effective use of the resources provided.

The focus of this definition is on users, particularly equity investors, lenders and creditors, who are unable to obtain the information necessary to make an economic decision, nor to assess the accountability of the entity's management.

In ED 193, a reporting entity is seen as having three features:

1. the conduct of economic activities;
2. the economic activities can be objectively distinguished from those of other entities and from the economic environment in which the entity exists; and
3. financial information about those economic activities is potentially useful in making economic decisions and in assessing whether the management have made efficient and effective use of the resources provided.

ED 193 also makes the point that these features are necessary — but not always sufficient — to identify a reporting entity. It states that the existence of a legal entity is neither necessary nor sufficient to identify a reporting entity. Even though a single legal entity is likely to qualify as being a reporting entity, a reporting entity can include more than one entity, or it can be a portion of a single entity, e.g. a branch or division of an entity.

The AASB, however, is responsible for setting standards and developing a conceptual framework not only for the private sector but also for the public and not-for-profit sectors, and ED 193

is directed only at the private sector. In its request for comments on ED 193, the AASB argues that, once the IASB has completed its project on the reporting entity, the AASB will then consider whether the reporting entity concept should apply only to Australian for-profit entities, with the potential of retaining the existing AASB ***Framework*** for not-for-profit entities, as an interim measure until pronouncements on other types of entities are made at an international level. In the meantime, AASB 1053, which has adopted Tier 1 and Tier 2 differential reporting requirements and the SAC 1 definition of the reporting entity, will apply. At the time of writing, comments on ED 193 have been closed and the IASB is to review the comments as part of the process in developing the revised conceptual framework.

LEARNING CHECK

☐ Reporting entities consist of all entities and economic entities where it is reasonable to expect the existence of users who depend on general purpose financial reports for information to use in making and evaluating economic decisions.

☐ In Australia, under SAC 1 and accounting standards, a reporting entity is required to prepare general purpose financial reports complying with accounting standards.

☐ Use of the reporting entity concept in practice as a concept for differential reporting has been criticised, and some business people are keen for it to be replaced with public accountability and size tests. The IASB has published an Exposure Draft in the reporting entity concept. It appears likely that the reporting concept will remain but the eventual definition may differ from SAC 1.

10.4 Objectives of general purpose financial reporting

LO 4 Describe the objectives of general purpose financial reporting under the *Conceptual Framework*.

In addition to the reporting entity concept, another important step in developing the ***Conceptual Framework*** was to determine the objective of financial reporting. The IASB's ***Conceptual Framework*** and SAC 2 deal only with the objective of **general purpose financial reports**. There is no clear definition of general purpose financial reports in the IASB's ***Conceptual Framework***. It does state, however, that general purpose financial reports are those on which existing and potential investors, lenders and other creditors must rely for much of the financial information they need, as they cannot require reporting entities to provide information directly to them. The primary users of general purpose financial reports are existing and potential investors and creditors.

On the other hand, SAC 2 defines general purpose financial reports as those intended to meet the information needs common to a range of users who are unable to command the preparation of reports tailored to meet their own particular needs. The SAC 2 definition implies that general purpose financial reports will satisfy users' needs, but this is not the case. The IASB's ***Conceptual Framework*** points out that general purpose financial reports do not and cannot provide all of the information needs of users. Users must consider pertinent information from other sources, e.g. general economic conditions and expectations, political events and political climate, and industry and company outlooks. Also, general purpose financial reports are not designed to show the value of a reporting entity, but they do provide information to help the primary users estimate the value of the reporting entity.

In 2010, both the IASB and the FASB amended the ***Conceptual Framework*** to specify the objective of general purpose financial reporting. The objective is contained in paragraph OB2 of the IASB's ***Conceptual Framework***:

> to provide financial information about the reporting entity that is useful to existing and potential equity investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit.

The boards have adopted the 'entity perspective', which is intended to convey that an entity — not its owners and others having an interest in the entity — is the object of general purpose financial reporting. In other words, the focus is placed on reporting the entity's resources (assets), the claims to the entity's resources (liabilities and equity) and the changes in them. Shareholders are

seen not so much as owners of the entity but merely as providers of resources to the entity, in much the same way as lenders and other creditors. Both present and potential equity investors and creditors are seen as constituting the single primary user group. Other potential user groups, e.g. government and other regulatory bodies, customers, employees and their representatives, are not the focus of the IASB and FASB's objective. The ***Conceptual Framework*** states that other parties, such as regulators and members of the public other than investors, lenders and other creditors, may also find general purpose financial reports useful; however, such reports are not primarily directed to these other groups.

The IASB's direction towards a primary user group poses a problem for the AASB, which is required to develop accounting standards not only for the private sector, but also for the public and not-for-profit sectors. Hence, the IASB's narrow focus on serving the needs of present and potential equity investors, lenders and other creditors is not satisfactory for the AASB, and the AASB will be required to maintain aspects of SAC 2. At the time of writing, SAC 2 divides primary users of general purpose financial reports into three categories.

1. ***Resource providers.*** This category includes employees, lenders, creditors, suppliers and investors. In the case of non-business entities, the category includes donors, members of clubs, taxpayers and

ratepayers.

2. ***Recipients or consumers of goods and services,*** i.e. customers, beneficiaries, taxpayers and ratepayers.
3. ***Parties performing a review or overseeing function.*** These include parliaments, governments, regulatory agencies, labour unions, employer groups, media, and special-interest community groups, e.g. environmental and conservation groups.

According to SAC 2, the main objective of general purpose financial reporting is to provide information useful to users for making and evaluating decisions on the allocation of scarce resources. A secondary objective is that the reports should be presented by management and governing bodies in such a manner as to discharge their 'accountability' for the resources entrusted to them. This objective is often referred to as one of reporting on the results of 'stewardship'.

The objective of accountability and/or stewardship, contained in SAC 2, is deliberately de-emphasised in the IASB's ***Conceptual Framework***. This is unfortunate. In these times when environmental and social issues are of greater importance to society, and there is greater desire for sustainability reporting, why have these issues been ignored in the IASB's revised ***Conceptual Framework***?

Regarding the types of information to be included in general purpose financial reports, the IASB's ***Conceptual Framework*** argues that the reports should provide information about the **financial position** of a reporting entity, which is information about the entity's economic resources and the claims against the reporting entity. The financial reports also provide information about the effects of transactions and other events that change a reporting entity's economic resources and claims. The ***Conceptual Framework*** argues that information about the nature and amounts of a reporting entity's economic resources and claims can help users to assess the entity's liquidity and solvency, its needs for additional financing, and how successful it is likely to be in obtaining that financing.

Information about a reporting entity's **financial performance** is also useful. It helps users to understand the return that the entity has produced on its economic resources. Such information provides an indication as to how well management has discharged its responsibilities to make efficient and effective use of the reporting entity's resources. Information about a reporting entity's past financial performance and how its management discharged its responsibilities is usually helpful in predicting the entity's future returns on its economic resources and future cash flows. SAC 2 further argues that aspects of an entity's performance can be measured in financial and non-financial terms.

Before the objective of general purpose financial reporting can be implemented in practice, there is a need also to specify the basic qualitative characteristics that financial information should have. It is necessary to define as well the basic elements, e.g. assets, liabilities, equity, income and expenses, used in financial statements. Hence, these aspects of the ***Conceptual Framework*** are considered below.

LEARNING CHECK

☐ The first aim of general purpose financial reporting is to provide information to users in order to help them make economic decisions.

☐ The second aim is to present information in such a manner as to discharge managers' accountability to users for the resources entrusted to them.

☐ According to the ***Conceptual Framework***, there are seven categories of users of general purpose financial reports.

☐ The IASB project to revise the conceptual framework focuses the objective of general purpose financial reporting on satisfying the financial information needs of potential and present investors and creditors for making resource allocation decisions.

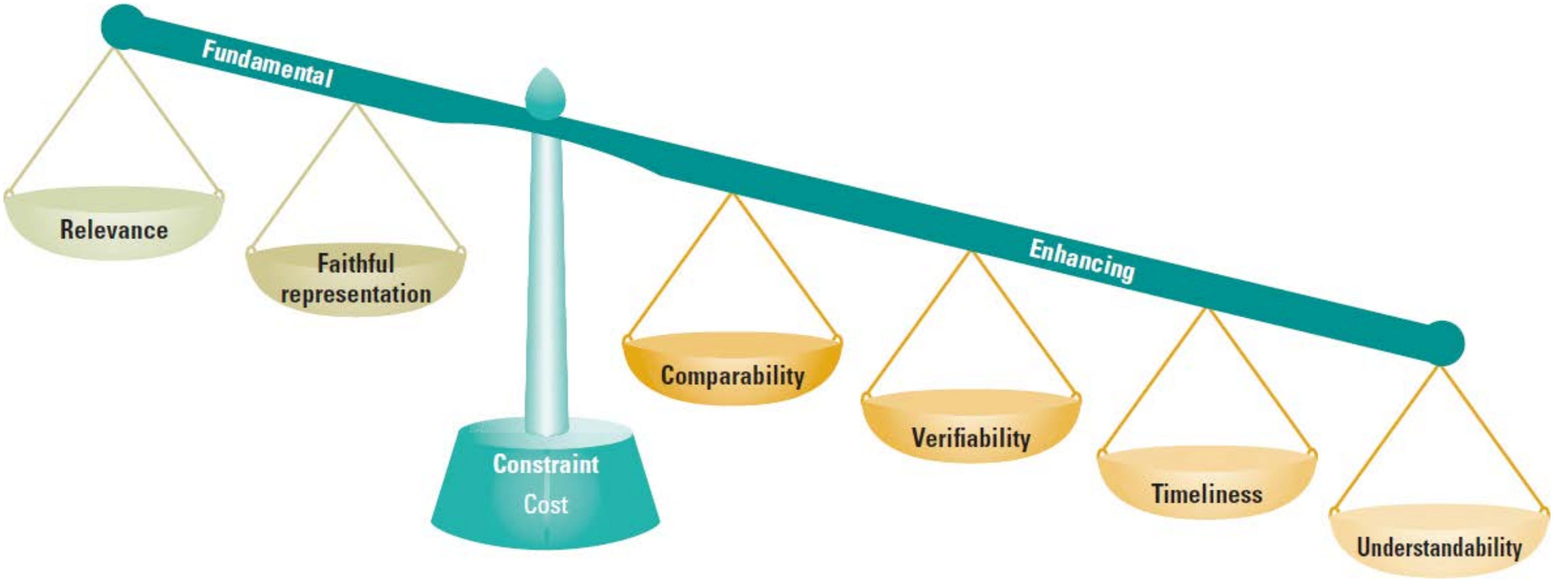
10.5 Qualitative characteristics of financial information

LO 5 **Identify the qualitative characteristics for the selection and presentation of financial**

information.

What characteristics should financial information have in order to be included in general purpose financial reports? The IASB’s ***Conceptual Framework*** asserts that there are six main qualitative characteristics that financial information should have in order to be the subject matter of general purpose financial reports: ***relevance***, ***faithful representation***, ***comparability***, ***verifiability***, ***timeliness*** and ***understandability***. Relevance and faithful representation are distinguished as ‘fundamental’ qualitative characteristics, and the others are viewed as ‘enhancing’ qualitative characteristics. The ***Conceptual Framework*** also specifies that there is a constraint on financial reporting, namely a ***cost constraint***. The qualitative characteristics of financial information as contained in the ***Conceptual Framework*** can be expressed diagrammatically as shown in figure 10.3.

Figure 10.3 Qualitative characteristics of financial information



Fundamental characteristics

Relevance

To have **relevance**, financial information must have a quality which makes a difference in a decision of an economic nature made by users. Information may be capable of making a difference in a decision even if some users choose not to take advantage of it or are already aware of it from other sources. Information is relevant to a decision if it helps users to form predictions about the outcomes of past, present or future events, and/or confirms or changes their previous evaluations by providing suitable feedback. In other words, for information to be relevant, it must have ***predictive value*** and/or have ***confirmatory value***. Note that having predictive value does not mean that the financial information must be in the form of an explicit forecast or budget. The ***Conceptual Framework*** provides an example of predictive and confirmatory values in that revenue information for the current year can be used as the basis for predicting revenues in future years, and can also be compared with

past years’ revenue predictions for the current year. The results of these comparisons can help a user to correct and improve the processes that were used to make those previous predictions.

Thus, relevant information about financial position and past performance is often used as the basis for predicting future financial position and performance and other matters in which users are directly interested, such as future dividends and wage payments, future share prices, and the ability of the reporting entity to pay its debts when they fall due. The predictive ability of information may be improved if unusual or infrequent transactions and events are reported separately in the financial reports.

Another aspect of relevance in the context of each specific entity is the **materiality** of the items reported by that entity. In some cases, the nature of the information alone is enough to determine its relevance, such as money lost through embezzlement by staff. In other cases, both the nature and magnitude are important. The ***Conceptual Framework*** states that information is material if omitting it or misstating it could influence decisions that users make on the basis of financial information about a specific reporting entity. AASB 1031 ***Materiality***[1] adds, in addition to omission and misstatement, that information may be material if its non-disclosure, i.e. it is not disclosed separately, has the potential to affect adversely the users' decisions, or the rendering of accountability by preparers. Any assessment of materiality needs to be made in relation not only to individual items but also to classes of similar items. For instance, errors in individual items may be immaterial by themselves, but material in aggregate. A practical aspect to materiality is the immediate expensing of small costs incurred for the purchase of assets on the grounds that the amount paid is not significant enough to affect decisions. Small expenditures for non-current assets, e.g. tools, are often expensed immediately, rather than depreciated over their useful lives, to save clerical costs of recording depreciation, and because the effects on performance and financial position measures over their useful lives are not large enough to affect decisions. Another example of the application of materiality is the common practice by large companies of rounding amounts to the nearest thousand dollars in their financial statements.

Materiality is a relative matter. What is material for one entity may be immaterial for another. A $100 000 error in the financial statements of a multimillion-dollar company may not be important, but it may be critical to a small business. The materiality of an item may depend not only on its relative size but also on its nature. For example, the discovery of a $10 000 bribe is a material event even for a large company. Judgements as to the materiality of an item or event are often difficult. Accountants make judgements based on their knowledge of the company and on past experience, and users of financial statements must generally rely on the accountants' judgements.

It is argued in the ***Conceptual Framework*** that materiality is an entity-specific matter and is therefore not a primary qualitative characteristic which information must have if it is to be useful. Materiality provides a threshold or cut-off point in determining whether information is relevant for inclusion in financial reports.

Faithful representation

According to the ***Conceptual Framework***, for relevant information to be useful for the primary user group in making resource allocation decisions, the information reported must be a **faithful representation** of the real-world economic phenomena that it purports to represent. For a complete faithful representation, information must be ***complete, neutral*** and ***free from material error.*** Of course, perfection is seldom, if ever, achievable. The objective, therefore, is to maximise those qualities to the extent possible.

A ***complete,*** faithful representation of an item or event includes all necessary descriptions and explanations. For example, a complete depiction of an entity's assets would include, as a minimum, a description of the nature of the assets, a numerical amount for all of the assets, and a description of what the numerical amount represents (e.g. is the amount based on original cost, adjusted cost or fair value?). For some items, a complete faithful representation may also entail explanations of significant facts about the quality and nature of the items, factors and circumstances that might affect their quality and nature, and the process used to determine the numerical depiction.

According to the ***Conceptual Framework***, information is ***neutral*** if it is determined without bias in its selection or presentation. A neutral representation of an item is not slanted, weighted, emphasised, de-emphasised or otherwise manipulated to increase the probability that the information will be received favourably or unfavourably by users. Neutral information does not mean information with no purpose or no influence on behaviour. On the contrary, relevant financial information is, by definition, capable of making a difference in users' decisions.

Freedom from material error in the ***Conceptual Framework*** does not mean the total absence of errors in the depiction of economic events, because economic events presented in financial reports are generally measured under conditions of uncertainty, and judgements are necessary. Freedom from material error means there are no errors or omissions in the 'description' of the item or event, and in the 'process' used to produce the information reported. To illustrate, it is not known whether an estimate of a price or value which cannot be observed in the marketplace is accurate or inaccurate. However, a representation of that estimate can be faithful if the amount is 'described' clearly and accurately as being an estimate, the nature and limitations of the estimating 'process' are explained, and no errors have been made in selecting and applying the process to determine the estimate.

To sum up, a faithful representation of an economic event must reflect the best available estimate of the real-world phenomenon being depicted. Completeness and neutrality of estimates are desirable, and the absence of material errors is also necessary for estimates to be faithful representations of economic events. Thus, adequate descriptions of the economic events, and disclosure of the processes used in handling uncertainty in measurement, are required.

In applying the fundamental qualitative characteristics, information must be both relevant and faithfully represented if it is to be useful. A faithful representation of an irrelevant transaction or event, or an unfaithful representation of a relevant transaction or event, does not help users make good decisions. According to the ***Conceptual Framework***, the best process for applying the fundamental qualitative characteristics is usually as follows:

1. Identify an economic phenomenon that has the potential to be useful to users of the reporting entity's financial information.
2. Identify the type of information about that phenomenon that would be most relevant if it is available and can be faithfully represented.
3. Determine whether that information is available and can be faithfully represented. If so, the process of satisfying the fundamental qualitative characteristics ends at that point. If not, the process is repeated with the next most relevant type of information.

Somewhat surprisingly, there is no discussion in the IASB's ***Conceptual Framework*** about the importance of focusing on the economic substance of a transaction or event, rather than its legal form, when selecting information to be reported in general purpose financial reports. Furthermore, the concept of ***prudence***, which is explained in terms of a desire to exercise care and caution when dealing with uncertainties in the measurement process, has been excluded from the ***Conceptual Framework***.

Enhancing qualitative characteristics

According to the IASB's ***Conceptual Framework***, ***comparability***, ***verifiability***, ***timeliness*** and ***understandability*** are qualitative characteristics that enhance the usefulness of information that is relevant and faithfully represented.

Comparability

Making a decision involves choosing between alternatives, e.g. selling or holding shares, or buying shares in one reporting entity as opposed to another. Consequently, the ***Conceptual Framework*** argues that information about a reporting entity is more useful if it can be compared with similar information about other entities and with similar information about the same entity for another period or another date. **Comparability** is the qualitative characteristic that enables users to identify and understand similarities in, and differences among, items. Unlike the other qualitative characteristics, comparability does not relate to a single item. A comparison requires at least two items.

Comparability is more effective when different entities use the same accounting practices. An important implication of the qualitative characteristic of comparability is that users will be informed of the accounting policies used in the preparation of the general purpose financial report,

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plus any changes to those policies and the effect of those changes. This implies the measurement and reporting of transactions and events with **consistency** over time and between entities. Consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities. Comparability is the goal; consistency helps to achieve that goal.

Alternative accounting practices and policies exist in the treatment of many items, such as inventories and cost of sales, non-current assets and depreciation, and intangible assets such as patents and copyrights. The standard setters have expressed their position regarding the consistency of accounting methods in accounting standard IAS 8/AASB 108 ***Accounting Policies, Changes in Accounting Estimates and Errors***, which states that an entity must select and apply its accounting policies in a consistent manner from one period to another. Consistency of practices between entities is also desired. Any change made in an accounting policy by an entity must be disclosed by stating the nature of the change, the reasons the change provides reliable and more relevant information, and the effect of the change in monetary terms on each financial statement item affected. For example, a change in policies may be disclosed in a footnote such as this:

> During the year, the company changed from the first-in first-out to the weighted average cost method of accounting for inventory because the weighted average cost method provides a more relevant measure of the entity's financial performance. The effect of this change was to increase cost of sales by $460 000 for the current financial year.

Note that the need for consistency does not require a given accounting method to be applied throughout the entity. An entity may very well use different inventory methods for different types of inventory and different depreciation methods for different kinds of non-current assets. (Different inventory costing and depreciation methods are discussed in later chapters.) Furthermore, the need for consistency should not be allowed to become an impediment to better accounting. Consistency from year to year or entity to entity is not an end in itself, but a means for achieving greater comparability in the presentation of information in general purpose financial reports.

The ***Conceptual Framework*** also points out that the need for comparability should not be confused with uniformity. For information to be comparable, like things must look alike and different things must look different. Comparability of financial information is not enhanced by making unlike things look alike; nor is it enhanced by making like things look different. It is not appropriate for an entity to continue to apply an accounting policy if the policy is not in keeping with the qualitative characteristics of relevance and faithful representation.

Verifiability

According to the IASB's ***Conceptual Framework,*** verifiability helps assure users that information faithfully represents the economic phenomena it purports to represent. **Verifiability** means that different knowledgeable and independent observers could reach consensus, although not necessarily complete agreement, that a particular piece of information is a faithful representation of the economic phenomena. Numeric information need not be a single point estimate to be verifiable. A range of possible amounts and the related probabilities can also be verified.

The ***Conceptual Framework*** states that verification can be direct or indirect. Direct verification means verifying an amount or other representation through direct observation, e.g. by counting cash. Indirect verification means checking the inputs to a model, formula or other technique and recalculating the outputs using the same methodology. An example is verifying the carrying amount of inventory by checking the inputs (quantities and costs) and recalculating the ending inventory using the same cost flow assumption (e.g. using the first-in, first-out method).

The characteristic of verifiability has the consequence that an entity's future budgets are not disclosed in general purpose financial reports. It may not be possible to verify forward-looking financial information until a future period, if at all.

Timeliness

Timeliness simply means having information available to decision makers in time to be capable of influencing their decisions. Having relevant information available sooner than later can enhance its

capacity to influence decisions, and a lack of timeliness can rob information of its potential usefulness. Generally, the older the information is the less useful it is. However, some information may continue to be timely long after the end of a reporting period because decision makers may need to establish trends in the data.

The need for timely reporting raises a question about the frequency of reports (yearly? half-yearly? quarterly? monthly?) and also the length of time that can be allowed between the end of the reporting period and the publication of general purpose financial reports for users. Any delays in publication cause the information in these reports to be less relevant.

Understandability

When information is included in general purpose financial reports, there is an obvious need for the users of those reports to be able to comprehend their meaning; hence, the ***Conceptual Framework*** lists the final qualitative characteristic of financial reports to be **understandability**. Understandability, however, does not necessarily imply simplicity. It is assumed that readers of reports have a reasonable knowledge of business and economic activities, and that they are willing to study the information with reasonable diligence. The ***Conceptual Framework*** makes it clear that information about complex matters should still be included in the report if it is considered relevant to the decision-making needs of users, even if it is too difficult for some users to understand. If users find that the information is too complex for their understanding, it is expected that they will seek professional help and advice.

The cost constraint on relevant, faithfully representative information

Reporting financial information imposes costs, and it is important that those costs are justified by the benefits of reporting that information. The cost constraint requires the costs incurred in generating information do not outweigh the benefits to be obtained from having the information. Costs could include those of collection, storage, retrieval, presentation, analysis and interpretation, and loss of competitive position, most of which are incurred by the reporting entity. Nevertheless, these costs will generally flow in a number of direct and indirect ways to other parties, e.g. consumers. The benefits are enjoyed directly by parties external to the entity, namely shareholders, investors and creditors. There is little chance that the costs of preparation will be borne ultimately by all of those parties who enjoy the benefits.

The cost constraint is applied by standard setters when developing a proposed financial reporting standard. Unfortunately, determining expected costs and benefits is inherently subjective, as different individuals' assessments of the costs and benefits of reporting particular items of financial information will vary. Hence, standard setters have been prepared to adopt differential reporting, namely different levels of reporting requirements for different entities. Differential reporting requirements feature in current accounting standards; such standards apply mainly to those entities classified as reporting entities. In the case of external reporting by companies, accounting standards apply mainly to public companies and to large proprietary companies. In Australia, many small to medium-sized entities must also follow the recognition and measurement requirements of accounting standards, but are able to apply reduced disclosure requirements in accordance with AASB 1053 ***Application of Tiers of Australian Accounting Standards.***

LEARNING CHECK

☐ The two fundamental characteristics of financial information in the ***Conceptual Framework*** are relevance and faithful representation.

☐ The four enhancing qualitative characteristics of financial information in the ***Conceptual Framework*** are relevance, reliability, comparability and understandability.

☐ For the measurements of the elements to be 'faithfully represented', they must be a faithful representation of the transactions and events that have occurred.

☐ Comparability does not necessarily lead to consistency.

☐ Understandability does not necessarily mean simplicity, but assumes that users have a suitable level of business knowledge in order to be able to read and understand financial reports.

☐ Cost is the constraint on applying the qualitative characteristics.

10.6 Definitions of elements in financial statements

LO 6 **Define assets, liabilities, equity, income and expenses, as established under the *Conceptual Framework*.**

The ***Conceptual Framework*** provides definitions of important elements underlying general purpose financial reports, namely assets, liabilities, equity, income and expenses. So far in this book, the definitions of these terms have been simplified. Here, we will expand our discussion of the terms in order to provide a greater appreciation of the issues considered in the ***Conceptual Framework***.

Assets in the current *Conceptual Framework*

An **asset** is defined in the current ***Conceptual Framework*** as 'a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity'.

This definition identifies three essential characteristics.

1. The resource must contain future economic benefits, i.e. it must have the potential to contribute, directly or indirectly, to the flow of cash and cash equivalents to the entity. An asset can cause future economic benefits to flow to the entity in a number of ways:
   - it can be exchanged for another asset
   - it can be used to settle a liability
   - it can be used singly or in combination with other assets to produce goods or services to be sold by the entity.
2. The entity must have **control** over the resource in such a way that the entity has the capacity to benefit economically from the asset in the pursuit of the entity's objectives, and can deny or regulate the access of others to those economic benefits.
3. The event or events giving rise to the entity's control over the resource must have occurred.

An asset may have other characteristics, but the ***Conceptual Framework*** does not consider them essential for an asset to exist. For instance, assets are normally acquired at a cost incurred by the entity, but it is not essential that a cost is incurred in order to determine the existence of an asset. Similarly, it is not essential that an asset is tangible, as many assets (e.g. receivables, copyrights, patents) represent future economic benefits without the existence of any physical substance. Furthermore, assets can be exchanged normally for other assets, but this does not make exchangeability an essential characteristic of an asset. Finally, it is not essential that an asset is legally owned by the reporting entity. Control by the entity often results from legal ownership, but the absence of legal rights or ownership does not preclude the existence of control, e.g. a lease.

For an entity to have an asset, it must control the asset (as discussed in point 2 above). Mere possession of an asset is not enough. Agents who hold goods received on consignment cannot treat the goods as their own asset because they do not have control.

Assets in the proposed framework

Following discussions between the IASB and the FASB, several shortcomings were identified with the existing definition of an asset.

- The existing definition focuses on identifying future economic benefits, whereas it is believed that the focus should be on the existence of a present economic resource.
- The existing definition of 'control' has been misinterpreted and used in the same sense as control over subsidiaries for consolidation purposes. Hence, it is proposed that the new definition should focus on rights or privileged access to the economic resource.
- The focus on the existence of a past event has taken away the emphasis on whether the economic resource and rights to it exist at the end of the financial year.
- It is unclear how the existing definition applies to contractual promises.
- Any assessment of expectation or probability should be removed from the definition of an asset.

In the most recent discussion paper issued by the IASB, ***DP/2013/1 — A Review of the Conceptual Framework for Financial Reporting***, it is proposed that the preliminary definition of an asset should be revised to the following:

> An asset of an entity is a present economic resource controlled by the entity as a result of past events.

The discussion paper places emphasis on the fact that an asset is a resource rather than the ultimate inflow of economic benefits and also clarifies that an asset must be capable of producing inflows of economic benefits (but that these inflows need not be certain).

Liabilities in the current *Conceptual Framework*

A **liability** is defined in the current ***Conceptual Framework*** as 'a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits'. There are a number of important aspects concerning this definition.

- A legal debt constitutes a liability, but a liability is not restricted to being a legal debt. Its essential characteristic is the existence of a present obligation, being a duty or responsibility of the entity to act or perform in a certain way. A present obligation may arise as an obligation imposed by notions of equity or fairness (referred to as an 'equitable' obligation), and by custom or normal business practices (referred to as a 'constructive' obligation), as well as those resulting from legally enforceable contracts. For example, an entity may decide as a matter of policy to rectify faults in its products even after the warranty period has expired. Hence, the amounts that are expected to be spent in respect of goods already sold are liabilities.
- It is not sufficient for an entity merely to have an intention of sacrificing economic benefits in the future. A present obligation needs to be distinguished from a future commitment. A decision by management to buy an asset in the future does not give rise to a present obligation. An obligation normally arises when the asset is delivered, or the entity has entered into an irrevocable agreement to buy the asset, with a substantial penalty if the agreement is revoked.
- A liability must result in the giving up of resources embodying economic benefits which requires settlement in the future. The entity has little, if any, discretion in avoiding this sacrifice. This settlement in the future may be required on demand, at a specified date, or when a specified event occurs. Thus, a guarantee under a loan agreement is regarded as giving rise to a liability in that a sacrifice is required when a specified event occurs, e.g. default under the loan. Settlement of a present obligation may occur in a number of ways:
  - by paying cash
  - by transferring other assets
  - by providing services
  - by replacing that obligation with another obligation
  - by converting that obligation to equity
  - by a creditor waiving or forfeiting his or her rights.
- A final characteristic of a liability is that it must have resulted from a past transaction or event. For example, the acquisition of goods and the work done by staff give rise to accounts payable and wages payable respectively. Wages to be paid to staff for work they will do in the future is not a liability as there is no past transaction or event and no present obligation.

Liabilities in the proposed framework

In December 2007, the IASB and FASB announced (in IASB ***Update***, December 2007, and FASB Project Update, 4 February 2008) that the definition of a liability should change by focusing on a liability as an enforceable 'economic obligation' or present 'economic burden' rather than an expected future sacrifice of economic benefits. The reference to past events is to be replaced by a focus on the present. The essential attributes of an enforceable obligation include the involvement of a separate party and the existence of a mechanism that is capable of forcing an entity to take a specified course of action.

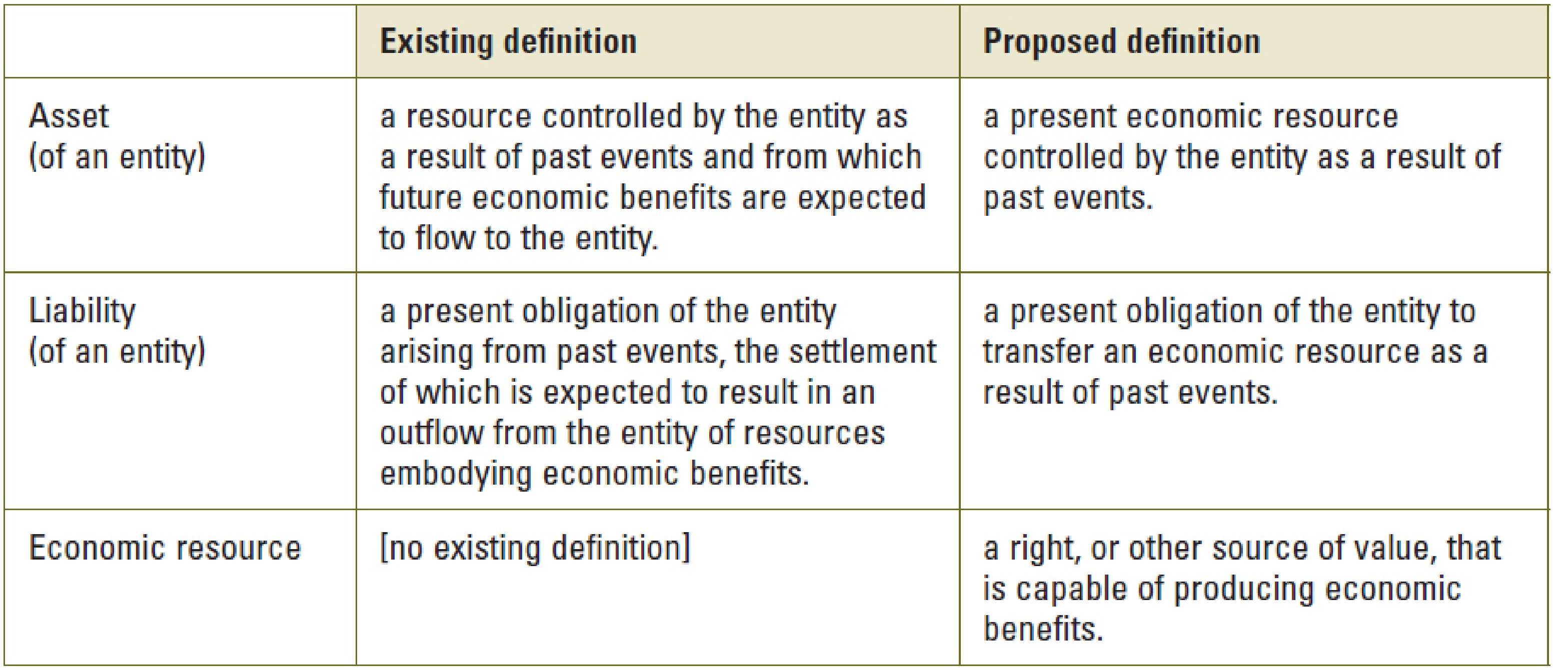
In the most recent discussion paper issued by the IASB, ***DP/2013/1 — A Review of the Conceptual Framework for Financial Reporting***, it is proposed that the preliminary definition of a liability should be revised to the following:

> A ***liability*** is a present obligation of the entity to transfer an economic resource as a result of past events.

In addition, the discussion paper expresses the view that the recognition criteria for both assets and liabilities should not retain the existing reference to probability.

Figure 10.4 provides a summary of the proposed definitions outlined in ***DP/2013/1 — A Review of the Conceptual Framework for Financial Reporting***.

Figure 10.4 Summary of proposed definitions of asset, liability and economic resource



	Existing definition	Proposed definition
Asset (of an entity)	a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.	a present economic resource controlled by the entity as a result of past events.
Liability (of an entity)	a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.	a present obligation of the entity to transfer an economic resource as a result of past events.
Economic resource	[no existing definition]	a right, or other source of value, that is capable of producing economic benefits.

Source: IASB 2013, *DP/2013/1 — A Review of the Conceptual Framework for Financial Reporting*, p. 24.

Equity in the current *Conceptual Framework*

The ***Conceptual Framework*** defines **equity** as ‘the residual interest in the assets of the entity after deducting all its liabilities’. Defining equity in this manner shows clearly that it cannot be defined independently of the other elements in the statement of financial position/balance sheet. The characteristics of equity are as follows.

- Equity is a residual, i.e. something left over. In other words:

  $$\text{Equity} = \text{Assets} - \text{Liabilities}$$

- Equity increases as a result of profitable operations, i.e. the excesses of income over expenses, and by contributions by owners. Similarly, equity is diminished by unprofitable operations and by distributions to owners (drawings and dividends).
- Equity is influenced by the measurement system adopted for assets and liabilities and by the concepts of capital and capital maintenance adopted in the preparation of general purpose financial reports. (These aspects are discussed later in the chapter.)
- Equity may be subclassified in the statement of financial position/balance sheet, for example into contributed funds from owners, retained earnings, other reserves representing appropriations of retained earnings, and reserves representing capital maintenance adjustments.

The discussion paper, ***DP/2013/1 — A Review of the Conceptual Framework for Financial Reporting***, issued by the IASB has not proposed a new definition of equity.

Income in the current *Conceptual Framework*

The ***Conceptual Framework*** defines **income** as:

> increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

Note that this definition of income is linked to the definitions of assets and liabilities. The definition of income is wide in its scope, in that income in the form of inflows or enhancements of assets can arise from providing goods or services, investing in or lending to another entity, holding and disposing of assets, and receiving contributions such as grants and donations. To qualify as income, the inflows or enhancements of assets must have the effect of increasing the equity, excluding capital contributions by owners. Also excluded are certain increases in equity under various inflation accounting models that require the recognition of capital maintenance adjustments (see more advanced books on the subject).

Another important aspect of the definition is that, if income arises as a result of an increase in economic benefits, it is necessary for the entity to ***control*** that increase in economic benefits.

If control does not exist, then no asset exists. Income arises once control over the increase in economic benefits has been achieved and an asset exists, provided there is no equivalent increase in liabilities. For example, in the case of magazine subscriptions received in advance, no income exists on receipt of the cash because an equivalent obligation also has arisen for services to be performed through supply of magazines in the future to clients.

Income can exist as well through a reduction in liabilities that increase the entity's equity. An example of a liability reduction is if a liability of the entity is 'forgiven'. Income arises as a result of that forgiveness, unless the forgiveness of the debt constitutes a contribution by owners.

Under the current ***Conceptual Framework***, income encompasses both revenue and gains. A more complete definition of **revenue** is contained in accounting standard IAS 18/AASB 118 ***Revenue*** as follows:

> the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants.

Thus revenue represents income which has arisen from 'the ordinary activities of an entity', an idea which has been reinforced in the IASB/AASB Exposure Draft 198 ***Revenue from Contracts with Customers***, issued in June 2010. On the other hand, **gains** represent income that does not necessarily arise from the ordinary activities of the entity, e.g. gains on the disposal of non-current assets or on the revaluation of marketable securities. Gains are usually disclosed in the income statement net of any related expenses, whereas revenues are reported at a gross amount. As revenues and gains are both income, there is no need to regard them as separate elements under the ***Conceptual Framework***.

At the time of writing, no proposals have come from the IASB to amend the definition of income.

Expenses in the current *Conceptual Framework*

The definition of **expenses** in the ***Conceptual Framework*** is as follows:

> decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

To qualify as an expense, a reduction in an asset or an increase in a liability must have the effect of decreasing the entity's equity. The purchase of an asset does not decrease equity and therefore does not create an expense. An expense arises whenever the economic benefits in the asset are consumed, expired or lost. Like income, the definition of expenses is expressed in terms of changes in assets, liabilities and equity.

This concept of expense is broad enough to encompass items that have typically been reported in financial statements as 'losses', e.g. loss on foreign currency transactions, losses from fire, flood, etc., losses on the abandonment of a research project. Losses are expenses that may not arise in the ordinary course of the entity's activities.

At the time of writing, no proposals have come from the IASB to amend the definition of expenses.

LEARNING CHECK

- ☐ The elements shown in financial statements are assets, liabilities, equity, income and expenses.
- ☐ Equity is related to assets and liabilities in the sense that it is a residual after liabilities have been deducted from assets.
- ☐ Income includes both revenue and gains.
- ☐ Expenses include losses.

10.7 Recognition of the elements

LO 7 Describe the recognition criteria, established in the *Conceptual Framework*, for assets, liabilities, income and expenses.

There are recognition criteria to be followed in the preparation and presentation of general purpose financial reports in practice. These criteria have been set down as part of the ***Conceptual Framework***. **Recognition** means the process of incorporating in the statement of financial position/balance sheet or income statement an item that meets the definition of an element. In other words, it involves the inclusion of dollar amounts in the entity's accounting system. Note that an item must satisfy the definition of an element before it is 'recognised'.

Asset recognition in the current *Conceptual Framework*

The ***Conceptual Framework*** states that an asset should be recognised in the statement of financial position/-balance sheet when it is probable that the future economic benefits will flow to the entity and the asset has a cost or other value that can be measured reliably.

Consideration of the definition of an asset, as discussed on page 449, helps to determine whether an asset exists. Here, emphasis is placed on criteria for determining ***when to record*** an asset in the entity's accounting records. An asset is to be recognised only when both the probability and the reliable measurement criteria are satisfied. The term 'probability' refers to the degree of certainty that the future economic benefits will flow to the entity. The benefits should be more likely rather than less likely. For example, some development costs are not recognised as an asset because it is not 'probable' that future economic benefits will eventuate.

Even if such probability of future benefits is high, no recognition of an asset can occur unless some cost or other value is capable of reliable measurement. Without such a measurement, the qualitative characteristic of 'reliability' will not be achieved. In practice, reliable measurement of internally generated goodwill has been difficult, and therefore such goodwill has not been recognised as an asset. Similarly, reliable measurement of an entity's mineral reserves is difficult. It is argued in the ***Conceptual Framework*** that assets that cannot be measured reliably may nevertheless be disclosed in notes to the financial statements, particularly if knowledge of the item is considered relevant to evaluating the entity's financial position, performance and cash flows.

Liability recognition in the current *Conceptual Framework*

Once the existence of a liability has been established in accordance with the definition as discussed on page 450, criteria must then exist for the recognition of a liability in an entity's accounting records. The ***Conceptual Framework*** states that a liability is recognised in the statement of financial position/balance sheet when it is probable that an outflow of resources embodying economic benefits will result from settling the present obligation and the amount at which the settlement will take place can be measured reliably.

As with the recognition of assets, 'probable' means that the chance of the outflow of economic benefits being required is likely. The additional need for reliable measurement is an attempt to measure, in monetary terms, the amount of economic benefits that will be sacrificed to satisfy the obligation. Any liabilities that are not recognised in the accounting records because they do not satisfy the recognition criteria may be disclosed in notes to the financial statements, if considered relevant. Further discussion of the recognition of liabilities is provided in the chapter on liabilities.

Asset and liability recognition in the proposed framework

The discussion paper suggests that an entity should recognise all its assets and liabilities unless:

(a) recognising an asset or liability would provide users of financial statements with information that is not relevant, or is not sufficiently relevant to justify the cost; or

(b) No measure of an asset or liability would result in a sufficiently faithful representation of both asset or liability and the resulting income or expense.

Income recognition in the current *Conceptual Framework* and standards

In accordance with the ***Conceptual Framework***, income is recognised in the income statement when an increase in future economic benefits relating to an increase in an asset or decrease of a liability can be measured reliably.

As with the recognition criteria for assets and liabilities, probability of occurrence and reliability of measurement are presented as the two criteria for income recognition. For many entities, the majority of income in the form of revenues results from the provision of goods and services during the reporting period. There is little uncertainty that the income has occurred since the entity has received cash or has an explicit claim against an external party as a result of a past transaction. However, the absence of an exchange transaction often raises doubts as to whether the income has achieved the required degree of certainty. In situations of uncertainty, the ***Conceptual Framework*** requires the income to be recognised as long as it is ‘probable’ that it has occurred and the amount can be measured reliably. It is essential to remove any GST which may be included in the cash received or receivable in order to measure the amount of income reliably.

As stated previously, income includes both revenues and gains. The standard setters have provided further requirements for the recognition of revenues in accounting standard IAS 18/AASB 118 ***Revenue***, which deals with the recognition of different types of revenue that can arise in an entity. The standard requires all revenue recognised in the entity’s financial statements to be measured at the fair value of the consideration received or receivable. Separate recognition criteria are then provided for each different category of revenue.

Revenue from sale of goods

For revenue arising from the sale of goods, recognition as income can occur only when all the following conditions are satisfied:

(a) the entity has transferred to the buyer the significant risks and rewards of ownership of the goods
(b) the entity does not retain continuing managerial involvement to the degree usually associated with ownership or effective control of the goods sold
(c) the amount of the revenue can be measured reliably
(d) it is probable that the economic benefits associated with the transaction will flow to the entity
(e) the costs incurred or to be incurred in respect of the transaction can be measured reliably.

In most retail sales, criteria (a) and (b) will be satisfied when legal title to the goods has passed from the seller to the buyer; however, the standard requires only the risks and benefits of ownership, and effective control, to pass to the buyer, and this may be different from the point of transfer of legal title. These criteria appear consistent with the current definition of an asset, which requires an entity merely to have control over future economic benefits, rather than legal ownership, for an asset to exist. However, the ***Conceptual Framework*** does not require a sale to occur for revenue to exist, contrary to IAS 18/AASB 118, which implicitly assumes that revenue is to be earned in this context. Furthermore, IAS 18/AASB 118 requires a reliable measure of all costs associated with the sale.

Revenue from rendering services

IAS 18/AASB 118 requires that revenue from rendering services is recognised as income only on the satisfaction of four criteria:

(a) the amount of the revenue can be reliably measured (ex GST)
(b) it is probable that the economic benefits associated with the transaction will flow to the entity
(c) the stage of completion of the transaction at the end of the reporting period can be reliably measured
(d) the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

Under IAS 18/AASB 118, revenue from services is normally recognised as those services are performed or earned, provided that the amount of those services can be measured reliably. Criterion (c) is particularly appropriate for services rendered over a long period of time. For example, a company may have a contract to perform cleaning and maintenance services in an office building over a 5-year period. Revenue can be recognised by the company progressively (in stages) over the life of this contract. This stage-of-completion approach is sometimes referred to as the **percentage-of-completion method**. The method is also used by companies in the construction industry to recognise revenue progressively over the life of a large, long-term construction contract, in accordance with accounting standard IAS 11/AASB 111 ***Construction Contracts***.

Nevertheless, some people have found IAS 18/AASB 118 confusing when recognising revenue under contractual arrangements. Hence, in June/July 2010, an Exposure Draft was issued by the IASB, FASB and the AASB, namely Exposure Draft 198 ***Revenue from Contracts with***

Customers, outlining major proposed principles for an entity to apply in order to report useful information about the revenue and cash flows arising from its contracts to provide goods or services to customers. The core principle requires an entity to recognise revenue for the transfer of goods or services to customers at an amount that reflects the consideration that it receives, or expects to receive, in exchange for those goods or services. To apply the principle, an entity is required to:

1. identify the contract(s) with a customer
2. identify the separate performance obligations in the contract
3. determine the transaction price
4. allocate the transaction price to the separate performance obligations
5. recognise revenue when the entity satisfies each performance obligation.

In regard to (2) identifying the separate performance obligations in the contract, a performance obligation is defined as an enforceable promise (whether explicit or implicit) in a contract with a customer to transfer a good or service to the customer. If an entity promises to provide more than one good or service, e.g. with the cleaning contract mentioned previously where several cleaning tasks would be undertaken, it must account for each promised good or service as a separate performance obligation if the good or service is distinct.

Regarding (3), the transaction price is the amount of consideration that an entity receives, or expects to receive, from a customer in exchange for transferring goods or services promised in the contract. In many contracts, the transaction price is easily determined because the customer promises to pay a fixed amount at or near the time of the transfer of the promised goods or services. But if the amount of consideration is variable (for instance, because of rebates, bonuses, penalties, or the customer’s credit risk), an entity can recognise revenue from satisfying a performance obligation only if the transaction price can be reasonably estimated. In determining the transaction price, an entity considers the effects of the following:

(a) collectability
(b) the time value of money
(c) non-cash consideration
(d) consideration payable to the customer.

Having determined the transaction price, the entity must then allocate the price to all separate performance obligations in proportion to the stand-alone selling prices of the goods or services underlying each of those performance obligations at contract inception. The entity will then recognise revenue when it satisfies a performance obligation by transferring a promised good or service to a customer. According to ED 198, a good or service is transferred when the customer obtains control of that good or service. The entity will recognise revenue to the extent of the amount of the transaction price allocated to the satisfied performance obligation.

Revenue from interest, royalties and dividends

Recognition of revenue from interest, royalties and dividends can occur only when the following criteria are satisfied according to IAS 18/AASB 118:

(a) it is probable that the economic benefits associated with the transaction will flow to the entity
(b) the amount of the revenue can be measured reliably (ex GST if applicable).

In accordance with the standard, interest revenue must be recognised on a proportionate basis over the periods in which it is earned, as has been illustrated in previous chapters. The standard requires interest revenue to be recognised using the effective interest method, but the use of this method is beyond the scope of this book.

Royalties are rights of composers and authors to receive payments from publishing companies for the sale of their music or books. Royalties are also cash received by the owner of land (such as a pastoral company, the government or an Aboriginal community) from a mining company that has been given the right to mine mineral reserves on the owner's land. As an example of mining royalties, state governments, particularly in Queensland and Western Australia, receive considerable amounts of money annually from large companies as royalty payments for granting permission to the companies to extract mineral resources from land controlled by those governments. Under the standard, any entity entitled to royalty revenue must recognise it on an accrual basis according to the terms of the contract.

Dividends represent the return received by a person or entity holding share investments in another entity. In accordance with IAS 18/AASB 118, dividends can be recognised only when the holder of those shares has an established right to receive such payments. Unlike interest, dividends do not accrue on a time basis but are recognised only when an amount is clearly receivable from the entity paying those dividends.

Income from contributions

Income from the contributions of assets arises when an entity receives cash, or a right to receive cash or other assets, without having to give approximately equal value in return. This is sometimes referred to as a **non-reciprocal transfer**. Contributions of assets which constitute income under the ***Conceptual Framework*** exclude any contributions made by the owners to the entity. Examples of contributions that represent non-reciprocal transfers include:

(a) members' annual subscriptions to a club, such as a football club or social club
(b) cash donations received by entities for the purpose of future research
(c) cash donations received by charitable or relief organisations, or special-interest groups
(d) other assets received as donations.

To recognise income from contributions, AASB 1004 ***Contributions***, which applies only to not-for-profit entities, states that the following criteria need to be satisfied:

(a) the entity obtains control of the contribution or the right to receive the contribution
(b) it is probable that the economic benefits comprising the contribution will flow to the entity
(c) the amount of the contribution can be measured reliably.

In other words, the recognition criteria for contributions income in AASB 1004 are similar to those for revenue from the sale of goods in IAS 18/AASB 118.

These criteria apply only to non-profit entities including not-for-profit government departments. If a government department is an entity created with a profit motive, the standard does not apply. Contributions to a government department or whole of government are received in the form of rates, taxes, fines, grants and donations. In the case of government departments, parliamentary appropriations, other than those that give rise to a liability or that are in the nature of a contribution by owners, may also be a type of contribution. AASB 1004 requires contributions, other than contributions by owners, to be recognised as income when the receiving entity obtains control over them, irrespective of whether restrictions or conditions are imposed on the use of the contributions. The income is measured at the fair value of the contributions received or receivable.

Liabilities forgiven

Another category of income for not-for-profit entities discussed in AASB 1004 is income from liabilities forgiven by a creditor of the entity. Sometimes a creditor may cancel or give up a claim to a debt that is owed by an entity. In this case, the entity is 'forgiven' the debt and must treat the gross amount of the cancelled or 'forgiven' debt as income. This is done by debiting the account of the creditor concerned and crediting the Income from Debts Forgiven account.

Government grants received

From time to time, a business entity may receive grants from a government department or agency for the purpose of conducting research, environmental protection, or other reasons. IAS 20/AASB 120 ***Accounting for Government Grants and Disclosure of Government Assistance*** specifically deals with this issue. Government grants received by an entity in the form of income tax benefits or subsidies for agricultural activities are excluded from the standard. (Agricultural subsidies are discussed in IAS 41/AASB 141 ***Agriculture*** and are not considered here.)

Under IAS 20/AASB 120, government grants are divided into two categories:

- **grants related to assets**, whose main condition is that an entity qualifying for them should purchase, construct or otherwise acquire long-term assets
- **grants related to income**, which are grants other than those related to assets.

According to the standard, government grants of both categories, including non-monetary grants at fair value, cannot be recognised until there is reasonable assurance that:

- the entity will comply with the conditions attaching to them
- the grants will be received.

Government grants related to income, when recognised, are to be recognised as income systematically over the periods necessary to match them with the related costs that they are intended to compensate, on a systematic basis. They are not to be credited directly to equity. Note that, under this policy, the recognition of the income depends on a knowledge of the related costs, and income recognition is then tied to cost and expense recognition. The process of requiring an association of costs with the income is evident as well in the recognition criteria for revenue from the sale of goods and the provision of services under IAS 18/AASB 118, as discussed above.

However, government grants related to assets are to be debited to assets but cannot be credited directly to income or to equity. Instead, they must be credited to an account called ‘deferred income’ and presented in the statement of financial position/balance sheet as such. Alternatively, a grant related to assets may be presented as a reduction of the carrying amount of the asset concerned. A ‘deferred income’ account has no conceptual place in the ***Conceptual Framework***, as it appears to be neither income nor equity nor a liability. It is hoped that IAS 20/AASB 120 will be amended to eliminate this requirement in future. Furthermore, the required treatment of government grants by the recipient is contrary to the treatment of contributions receivable under AASB 1004.

Expense recognition in the current *Conceptual Framework*

Just as the income recognition criteria have been developed in the ***Conceptual Framework*** as a guide to the timing of income recognition, the expense recognition criteria have been developed to guide the timing of expense recognition. The formulators of the ***Conceptual Framework*** view expenses in terms of decreases in future economic benefits in the form of reductions in assets or increases in liabilities of the entity (see the definition of expenses on page 452). In addition to the probability criteria for expense recognition, the ***Conceptual Framework*** states that expenses are recognised in the income statement when a decrease in future economic benefits related to a decrease in an asset or an increase in a liability can be measured reliably.

This means that an expense is recognised simultaneously with a decrease in an asset or increase in a liability. An expense is also recognised in the income statement when the entity incurs a liability without the recognition of any asset, e.g. wages payable.

In years past, the process of recognising expenses was referred to as a ‘matching process’, whereby an attempt was made to associate each cost with the income recognised in the current period. Costs which were ‘associated’ with the revenue were then said to be ‘matched’ and written off to expenses. This idea of matching expenses with income has been dropped in the ***Conceptual Framework*** in favour of assessing the probability of a decrease in economic benefits which can be measured reliably. Matching is no longer the expense recognition criterion under the ***Conceptual Framework***.

Income and expense recognition in the proposed framework

At the time of writing, this issue has not been discussed in any detail.

BUSINESS KNOWLEDGE

On 18 July 2013, the IASB published a discussion paper which proposes changes to its conceptual framework for financial reporting. The name alone may cause many of you to assume this to be a somewhat theoretical exercise of interest only to accounting geeks with seemingly little relevance to investors. However, this is far from being the case. While a framework for financial reporting is not in itself an accounting standard, the decisions taken now will have far-reaching consequences because the IASB will use the revised framework as it develops new and revised Standards (IFRS).

Background

The framework covers issues such as:

(a) the objective of financial reporting, including a description of who financial reports are aimed at;

(b) the characteristics of useful financial information;

(c) the definitions of the elements of financial reports, such as assets, liabilities and equity, and income and expenses;

(d) when assets and liabilities should be included in the statement of financial position (balance sheet) and how they should be measured; and

(e) how income and expense should be presented in profit or loss and other comprehensive income.

It is important to note that the primary purpose of the framework is to help the IASB set Standards that meet the needs of investors. Thus, the framework has a significant influence on financial reporting. As a result, input from investors at this early stage is of great importance and the IASB is making significant efforts to involve investors in this crucial process.

The framework also has a secondary role: preparers of financial statements are required to consult the framework when they decide how to account for transactions or events that are not covered by IFRS. However, because of the increasingly comprehensive nature of IFRS, such scenarios are relatively rare.

The IASB already has a framework, but it is incomplete and needs updating. Previous work in 2010 led to new descriptions of the objective of financial reporting and the characteristics of useful financial information. This Discussion Paper focuses on filling in gaps and updating the existing framework.

Source: Excerpts from IASB 2013, ‘Framework rethink will shape the landscape for investors’, 19 July, www.ifrs.org.

LEARNING CHECK

☐ Recognition means to include an element in the accounting records.

☐ Presentation means to include an element in the financial statement.

☐ In the ***Conceptual Framework***, the recognition criteria for the elements are a probability test and a reliable measurement test.

☐ The recognition criteria for various categories of revenue, as a part of income, are added to in accounting standard IAS 18/AASB 118, and additional criteria for recognition of income are provided as well by IAS 20/AASB 120.

10.8 Measurement

LO 8 **Explain the importance of measurement in the preparation of financial statements.**

Because the concepts of equity, income and expenses are highly dependent on the concepts of assets and liabilities, measurement of the former depends on measurement of the latter. In other words, emphasis is placed on measuring assets and liabilities; the measurement of equity, income and expenses then follows. Measurement is very important in accounting in that it is the process by which valuations are placed on all elements reported in financial statements. Measurements thus have an important effect on the economic decisions made by users of those financial statements.

The current ***Conceptual Framework*** points out that a number of different measurement bases may be used for assets, liabilities, income and expenses in varying degrees and in varying combinations in financial statements. They include the following, the most common of which in practice is the historical cost basis.

- ***Historical cost***. Under the **historical cost** measurement basis, an asset is recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire it at its acquisition date. Liabilities are recorded at the amount of the proceeds received in exchange for an obligation, or at the amount of cash to be paid out in order to satisfy the liability in the normal course of business.
- ***Current cost***. For an asset, **current cost** represents the amount of cash or cash equivalents that would be paid if the same or equivalent asset was acquired currently. A liability is recorded at the amount of cash or cash equivalents needed to settle the obligation currently.

- ***Realisable or settlement value***. For an asset, the **realisable value** is the amount of cash or cash equivalents that could be obtained currently by selling the asset in an orderly disposal, or in the normal course of business. A liability is measured as the amount of cash or cash equivalents expected to be paid to satisfy the obligation in the normal course of business.
- ***Present value***. The present value of an asset means the discounted future net cash inflows or net cash savings that are expected to arise in the normal course of business. The present value of a liability is the discounted future net cash outflows that are expected to settle the obligation in the normal course of business.

The measurement basis most commonly adopted by entities is the historical cost basis. Nevertheless, other bases are used from time to time. For example, in order to comply with IAS 2/AASB 102 ***Inventories***, inventories are to be measured at the lower of cost and net realisable value. Non-current assets may be measured under the cost basis or revalued to **fair value**, defined, for assets, as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date, as per the requirements of IFRS 13/AASB 13 ***Fair Value Measurement***. Fair value is basically a measure of an item's market exit price on a particular date in the normal course of business.

Measurement in the proposed framework

The topic of measurement is also discussed in the IASB discussion paper. The IASB suggests that the number of measurement bases used in financial statements should be limited to the smallest number necessary to provide relevant information (IASB, 2013). However, the IASB also note that a single measurement basis for all assets and liabilities may not provide the most relevant information (IASB, 2013). In addition the benefits of a particular measurement base should be sufficient to justify the cost (IASB, 2013).

Concepts of capital

Scant attention has been given to the concept of capital in accounting in the last 30 years, but it was a topic which received considerable focus during the current value debates of the 1960s to early 1980s. It was argued then, and now, that before an entity can determine its income for any period, it must adopt not only a measurement basis for assets and liabilities but also a concept of capital. Two main concepts of capital are discussed in the ***Conceptual Framework***, namely financial capital and physical capital.

Financial capital

Under the **financial capital** concept, capital is synonymous with the net assets or equity of the entity, measured either in terms of the actual number of calculated dollars by subtracting the total of liabilities from assets, or in terms of the purchasing power of the dollar amount recorded as equity. Profit exists only after the entity has maintained its capital, measured as either the dollar value of equity at the beginning of the period, or the purchasing power of those dollars in the equity at the beginning of the period.

Physical capital

Under the **physical capital** concept, capital is seen not so much as the equity recorded by the entity but as the operating capability of the assets. Profit exists only after the entity has set aside enough capital to maintain the operating capability of its assets.

A number of different measurement systems have been devised in the past to provide alternatives to the conventional historical cost system, which is the system predominantly used in practice. These alternatives, which represent different combinations of the measurement of assets and liabilities and the concept of capital maintenance, include:

- the ***general price level accounting system***, which had its origins in Germany after World War I when inflation reached excessive levels — this system modifies the conventional historical cost system for the effects of inflation and therefore follows a financial capital concept

- ***current value systems***, which attempt to measure the changes in the current values of assets and liabilities — these systems include measures of the current buying or input prices of net assets, and/or measures of the current selling or realisable values of net assets. Capital may be measured as either financial or physical.

LEARNING CHECK

☐ Alternative methods for measuring an entity's assets and liabilities include historical cost, current cost, realisable value, fair value, and discounted cash flows or present value.

☐ Capital maintenance is an important consideration in measuring profit. Suggested capital concepts include financial capital and physical capital.

KEY TERMS

Accounting standards, p. 431
Asset, p. 449
Comparability, p. 446
Consistency, p. 447
Control, p. 449
Current cost, p. 458
Dividends, p. 456
Equity, p. 451
Expenses, p. 452
Fair value, p. 459
Faithful representation, p. 445
Financial capital, p. 459
Financial performance, p. 443
Financial position, p. 443
Gains, p. 452
General purpose financial reports, p. 442
Grants related to assets, p. 456
Grants related to income, p. 456
Historical cost, p. 458
Income, p. 451
Liability, p. 450
Materiality, p. 445
Non-reciprocal transfer, p. 456
Percentage-of-completion method, p. 454
Physical capital, p. 459
Public accountability, p. 440

Realisable value, p. 459
Recognition, p. 452
Relevance, p. 444
Reporting entity, p. 439
Revenue, p. 452
Royalties, p. 455
Timeliness, p. 447
Understandability, p. 448
Verifiability, p. 447

DISCUSSION QUESTIONS

1. Outline the regulatory process in Australia in relation to accounting standard setting, and discuss the influence of international bodies in the standard-setting process.
2. What is meant by an entity's financial position and performance? To whom and for what purpose are the financial position and performance appropriate sources of information?
3. 'One of the major changes in both corporations legislation and accounting standards is the adoption of the reporting entity concept.'

   This comment was made in a presentation at an accounting conference. One of the directors of your entity, a Brisbane-based company that is a wholly owned subsidiary of a Sydney-based company, was at the presentation and was concerned at his lack of knowledge of this concept.

   Explain to the director what is meant by the 'reporting entity' concept, the steps the company needs to take to determine whether it is a reporting entity, and the potential impact of this concept on financial reporting. Discuss as well whether or not the reporting entity concept should be abandoned.
4. Briefly explain the nature of the ***Conceptual Framework for Financial Reporting***, and discuss the perceived advantages and disadvantages of having a conceptual framework.
5. Specify the objectives of general purpose financial reporting, the nature of users, and the information to be provided to users in order to achieve the objectives as provided in the ***Conceptual Framework***.
6. From the current ***Conceptual Framework***, outline the qualitative characteristics of financial information to be included in general purpose financial reports.

7. The ***Conceptual Framework*** discusses 'essential' and 'non-essential' characteristics of an asset. Consider which characteristics of an asset are 'essential', explaining why you regard other characteristics as being non-essential. How would these characteristics change as a result of the proposed asset definition put forward by the IASB and FASB?
8. 'To determine whether an entity should classify its costs either as an asset or an expense, accounting standards must contain definitions of these terms.'

   With reference to the above statement, discuss the concept of an asset and an expense provided in the ***Conceptual Framework***. Provide also a discussion of the IASB and FASB's alternative suggestion for amending the definition of an asset. Do you agree with the above statement? Why or why not?
9. Outline the definitions of a liability and equity as provided in the current ***Conceptual Framework***. Provide and discuss examples of situations where there is confusion in determining whether a liability exists as opposed to equity.
10. 'Accounting profit is determined by recognising the income earned by the entity, and associating with that income the costs incurred in generating it.'

    This statement describes the way in which accountants have determined profit in practice for many years under the historical cost system. Is the statement an accurate reflection of the requirements of the ***Conceptual Framework*** for general purpose financial reporting? If not, explain any differences.
11. 'I find the distinction between income, revenue and gains confusing.' This is a student's statement overhead in a corridor. Help this student by discussing the major issues involved.
12. Outline and compare the revenue recognition criteria required by accounting standards for the sale of goods, the provision of services, contributions, and government grants. Are there any inconsistencies in these requirements? If so, discuss.
13. A major step in the framework project being undertaken by the regulators is the measurement of assets and liabilities. Some accountants argue that this will lead to a re-emergence of the current value

debate.

Why is measurement such an important issue? What alternatives for measurement have been put forward by the ***Conceptual Framework***? What role does capital maintenance have in selecting an appropriate measurement system?

EXERCISES

Exercise 10.1 VIOLATION OF REPORTING REQUIREMENTS LO 5, 6, 7

Several independent situations are described below.

1. The owner of the business included his personal dental expenses in the entity's income statement.
2. The company spent $40 000 on computer software development and recorded the cost as an asset. As yet it is impossible to predict whether this cost will result in future economic benefits.
3. Depreciation expense was not recorded because to do so would result in a loss for the period.
4. The cost of three books (cost $110 each) was charged to expense when purchased even though they had a useful life of several years.
5. A major lawsuit has been filed against the company for environmental damage, and the company's solicitors believe there is a high probability of losing the suit. However, nothing is recorded in the accounts.
6. Land was reported at its estimated selling price, which is substantially higher than its cost. The increase in value was included on the income statement.
7. The company received a government grant of $60 000 to continue its research program into finding a cure for diabetes. The company recognised the grant as an addition to capital.

Required

Indicate for each situation the accounting principle(s) or reporting characteristics (if any) that are violated.

Exercise 10.2 INCOME RECOGNITION LO 6, 7

Described below are several transactions and events for Chisholm Insurance Ltd for the year ended 30 June 2016.

1. The company issued a 1-year insurance policy to Boronia Ltd on 1 March 2016, costing $8000, received in advance.
2. The company leased premises to Red Hill Ltd for a period of 3 years, beginning on 1 January 2016. Red Hill Ltd paid $35 000 on this date, and is required to pay further instalments of $35 000 in 2017 and 2018.
3. The company has been a generous sponsor of the Clean-Up Australia Campaign in past years. In recognition of its support, an anonymous donor sent the company a cheque for $20 000, with a letter stating, 'keep up the good work!'
4. On 30 January 2016, the company sold a non-current asset to another organisation for $20 000. The asset originally cost Chisholm Insurance Ltd $50 000 and had been depreciated to a carrying amount of $15 000.

Required

For each transaction or event, determine the appropriate amount to be recognised as income in the current year. Ignore GST.

Exercise 10.3 ASSETS AND ASSET RECOGNITION LO 6 7

Explain whether you would recognise each item below as an asset, justifying your answer by reference to the ***Conceptual Framework***'s asset definition and recognition criteria:

(a) a trinket of sentimental value only

(b) discovery (at insignificant cost) of evidence of mineral reserves

(c) specialised equipment with zero disposal value, which now, because of downsizing, is surplus to requirements and has thus been retired from use

(d) your staff

(e) goods held on consignment for another entity.

Exercise 10.4 ASSET DEFINITION AND RECOGNITION LO 6 7

Randwick Medical Laboratory Ltd, RMLL, a medical research entity, has discovered a cure for a previously incurable disease. RMLL is protecting the drug's formula by keeping it secure in the company vault, rather than by patenting it. RMLL shortly plans to start discussions with vitally interested pharmaceutical companies about producing the drug for commercial sale. Being the first of its kind and, therefore, unique, RMLL has no idea as to the formula's value. Costs incurred to date in developing the formula are impossible to identify, given that the cure was discovered as a by-product of another research project.

Required

Outline how RMLL should account for the formula, justifying your answer by reference to relevant definitions and recognition criteria.

Exercise 10.5 REVENUE AND REVENUE RECOGNITION LO 6 7

Telecommunications company, Toronto Ltd, signed a 15-year deal to sell capacity on its cable network to a rival company for $200 million. The deal was completed on the last day of Toronto Ltd's financial year, 30 June. The company received an upfront payment of only $20 million from its competitor on that day, but decided to recognise 'revenue' of $200 million for the financial year just completed.

Required

Discuss fully how Toronto Ltd should account for the contract, justifying your answer by reference to relevant definitions and recognition criteria and relevant accounting standards.

Exercise 10.6 REVENUE AND REVENUE RECOGNITION LO 6, 7

State the amount of revenue that should be recognised by Whitehall Ltd in the year ended 31 December 2017 for each item below, justifying your answer by reference to the revenue definition and recognition criteria in IAS 18/AASB 118. Prepare any journal entries where necessary:

(a) Whitehall Ltd's net credit sales for 2017 were $400 000, 75% of which were collected in 2017. Past experience indicates that about 96% of all credit sales are eventually collected.

(b) Whitehall Ltd received $100 000 cash from a customer in December 2017 as payment for special-purpose machinery which is to be manufactured and shipped to the customer in February 2018.

(c) Whitehall Ltd started renting out its excess warehouse space on 1 October 2017, on which date it received $12 000 cash from the tenant for 6 months rent in advance. Ignore GST.

(d) Whitehall Ltd received 10 000 shares in Mitcham Ltd on 20 December 2017, on which date the shares were trading at $4.50 per share, as a gift from a grateful client.

(e) Whitehall Ltd received an item of equipment as settlement for goods sold on credit for $3000. On the date of the sale, the equipment had a fair value of $3200 and a carrying amount in the customer's records of $2200. Prepare also the journal entry to record the receipt of the equipment. Ignore GST.

Exercise 10.7 LIABILITIES AND LIABILITY RECOGNITION LO 6, 7

Outline whether you would recognise each item below as a liability, justifying your answer by reference to the ***Conceptual Framework***'s liability definition and recognition criteria:

(a) Your parents have lent you $20 000 to buy a car and have told you to pay it back whenever you like.

(b) You are guarantor for your friend's bank loan:

  (i) You have no reason to believe that your friend will default on the loan.

  (ii) Your friend has been encountering serious financial problems and you think it is likely that he will default on the loan.

(c) The court has ordered you to repair the environmental damage your firm has caused to a park next to your firm's premises. You have no idea as yet how much this repair work will cost.

(d) Your firm has a 20-year history of donating $2000 each year to the Telethon Appeal. As yet, no amount has been paid in the current year and nothing has been recorded in the accounts.

Exercise 10.8 SUBSTANCE OVER FORM

LO 6, 7

Greenvale Ltd sold some property to Thornleigh Ltd for $1 000 000 cash in June 2017, recording a profit of $200 000. A further element of the sale was that Greenvale Ltd gave Thornleigh Ltd an option to sell the property back to Greenvale Ltd at any time after 30 June 2017, the end of Greenvale Ltd's reporting period, for $1 000 000. If Thornleigh Ltd exercised the option, there would be no cash flow to Thornleigh Ltd from Greenvale until 2 years had passed.

The land has a current fair value of $800 000 with no changes expected in this amount in the next 3 years.

Required

Discuss the appropriate accounting treatment of this transaction in the accounting records of Greenvale Ltd. Ignore GST.

Exercise 10.9 LIABILITIES

LO 6, 7

The following items occurred in Mitcham Ltd for the year ended 30 June 2017:

(a) Some of Mitcham Ltd's plant and equipment is situated in an area which, on average, is flooded every 15 years. The company has no flood insurance, but provides an amount each year as a liability in the accounts for uninsured flood losses.

(b) Mitcham Ltd entered into a contract with Blackburn Ltd to acquire some plant and equipment at a cost of $1 000 000. At the end of the reporting period, Mitcham Ltd had paid a 10% deposit.

(c) Mitcham Ltd has a regular program of maintenance for its plant and equipment. In order to provide for this program, the company has been in the habit of establishing a Provision for Plant Maintenance account and disclosing it as part of liabilities.

Required

Discuss how the above items should be treated in the general purpose financial reports of Mitcham Ltd if the company were to comply with the provisions of the ***Conceptual Framework***. Ignore GST.

Exercise 10.10 ASSETS AND ASSET RECOGNITION

LO 6, 7

For several seasons, Megan Gale and Jennifer Hawkins have been employed by David Jones Limited and Myer Limited respectively in order to attract more fashion-conscious customers to their stores. This strategy has met with some success and their continued employment at fashion events in the future for their respective companies appears assured.

Required

Discuss whether Megan Gale and Jennifer Hawkins should be regarded as assets of David Jones Limited and Myer Limited respectively. Discuss also whether they should be recognised on the statement of financial position/balance sheet of the respective companies as assets.

Exercise 10.11 EXPENSES, LIABILITIES AND EQUITY

LO 6, 7

Brunswick Ltd is seeking your advice on how to account for the following transactions, in line with the ***Conceptual Framework*** and other relevant documents. Discuss and explain your recommended treatment of each of the situations below.

1. Brunswick Ltd spends $10 000 per year to have its head office cleaned and its gardens maintained. In order to continue this maintenance, the company established a Provision for Maintenance account and classified this provision as a liability on the statement of financial position/balance sheet.
2. Brunswick Ltd raised $1 000 000 by issuing 100 000 10-year redeemable preference shares. The company classified these shares as equity.
3. Brunswick Ltd is in the business of selling house and land packages to its customers. The current demand for these packages is extremely low and this is placing Brunswick Ltd in severe financial difficulties. The company has approached Hilands Finance Company Ltd (HFC), to provide special finance for the buyers of their house and land packages. HFC normally charges 13% interest but agrees to lower the interest rate by 3%. Customers of Brunswick Ltd will therefore pay only 10% interest and Brunswick Ltd will then pay HFC a sum equal to 3% interest as soon as each package is sold.

Brunswick Ltd wants to know how to treat the 3% payment to HFC in its accounting records.

Exercise 10.12 QUALITATIVE CHARACTERISTICS LO 5

Assume that the IASB (and AASB) is in the process of writing an accounting standard on accounting for water resources, and has received submissions that can be divided roughly into two camps — measurement of the resources at cost, and measurement at fair value. The process has reached the stage of applying the following qualitative characteristics of financial information.

	Cost	**Fair value**
Tick which of the two measures has greater:		
relevance	____	____
materiality	____	____
consistency	____	____
prudence	____	____
substance over form	____	____
freedom from bias	____	____
neutrality	____	____
objectivity	____	____
reliability	____	____
timeliness	____	____
comparability	____	____
understandability	____	____
faithful representation	____	____
verifiability	____	____

Required

A. Place a tick in one of the columns against each characteristic.
B. On the basis of this analysis, discuss which measure should be chosen for water resources.

Exercise 10.13 ASSETS AND EXPENSES LO 6, 7

Wyoming Wines Ltd has suffered a significant reduction in profitability, as a result of the current economic downturn and doubts about the quality of certain boutique wines. The company's profit for the year ended 30 June 2017 was only $2 150 000.

The general purpose financial reports for the year disclosed a note regarding the company's policy on wine advertising as follows:

> ***Advertising costs expecting to generate significant future economic benefits have been treated as an asset and carried forward to future years to be expensed against the future expected revenues. Management intends to review these deferred costs on a regular basis.***

The statement of financial position/balance sheet revealed that an amount of $10 million had been treated in this manner up to the end of 30 June 2017 as there was an item called Deferred Expenditure in the statement of financial position/balance sheet. This represented a change to the previous accounting policy of writing off advertising as it was incurred.

A finance report in the local newspaper commented that normally advertising is charged as an expense in the period it is incurred. The auditor of the company did not mention the deferred expenditure in the audit report.

Required

In light of the ***Conceptual Framework***, evaluate Wyoming Wines Ltd's treatment of the advertising expenditure carried forward.

Exercise 10.14 COSTS AND INCOME **LO 6, 7**

Hampton Housing Ltd (HHL) is a land development company trading in the construction of residential house and land packages in Sydney's western suburbs. The company is currently developing a residential subdivision, and the total cost of the development has been estimated at $18 000 000. This is related to future house and land packages, none of which is yet available for sale. HHL treated these costs as an asset.

By 30 June 2017, HHL sold 40 house and land packages in a different subdivision for the financial year. The total value of these packages is $15 000 000. The funds have not been received by HHL because it was arranged that payments would be received from various finance companies by the end of July 2017. HHL recognised the revenue in its income statement for the year ended 30 June 2017.

Required

Discuss HHL's treatment of the development costs of $18 000 000 and the packages sold for $15 000 000. Are these treatments consistent with the ***Conceptual Framework*** and accounting standards? Explain.

Exercise 10.15 ORDERING AN ASSET **LO 6, 7**

A well-known Australian airline has placed a non-cancellable order for a new Airbus A380. The price between the airline and the manufacturer is fixed, and delivery is to occur in 24 months with full payment to be made on delivery.

Required

A. Should the airline recognise an asset or liability at the time it places the order? Discuss in line with the ***Conceptual Framework*** definitions of assets and liabilities.
B. One year later, the price of the Airbus A380 has risen by 6%, but the airline had locked in its contract at a fixed, lower price. Under the ***Conceptual Framework***, should the airline recognise any asset (and income) at the time of the price rise? If the price fell by 6% instead of rising, should the airline recognise a liability (and expense) under the ***Conceptual Framework***?

PROBLEMS

Basic
Moderate
Challenging

Problem 10.1 CONCEPTUAL FRAMEWORK **LO 5, 6, 7**

After conducting an audit of the accounts of Parramatta Ltd, you discover that the following transactions and events were recorded during the current year. Parramatta Ltd uses the historical cost system.

1. The company borrowed $600 000 from a bank at an interest rate of 10% to construct a new warehouse. At the completion of construction, the loan was repaid and the following entry was made:

Bank Loan	600 000	
Warehouse	60 000	
Cash at Bank		660 000

2. A patent with a cost of $160 000 was being amortised over its useful life of 8 years. The amortisation entry made at the end of the current year was:

Retained Earnings	20 000	
Patents		20 000

3. A speed-control device was installed on each of the company's 8 delivery trucks at a cost of $300 each plus GST. The transaction was recorded as follows:

Maintenance Expense	2 400	
GST Receivable	240	
Cash at Bank		2 640

4. At the beginning of the current year, a new vehicle was purchased for $36 000. The vehicle had an estimated useful life of 4 years. Depreciation expense for the year was recorded as follows in order to avoid reporting a loss:

Depreciation Expense	2 000	
Accumulated Depreciation — Vehicle		2 000

5. Inventory was acquired at $30 per unit throughout the current year until the last purchase was made in the last month of the year. At that time the company was able to negotiate a special deal and acquired 10 000 units at $25 per unit. Ignore GST. The purchase was recorded as follows:

Inventory	300 000	
Cash at Bank		250 000
Income		50 000

Required

For each item above, determine which accounting concept(s) (if any) is violated, and explain why. For each violation, indicate the correct treatment.

Problem 10.2 CONCEPTUAL FRAMEWORK **LO 5, 6, 7**

Martindale Ltd uses the historical cost system. While reviewing the business activities of the company, you discover that the following transactions and events were recorded. Ignore GST.

1. Ending inventory for the current year had a cost of $115 200 and a selling price of $102 000. The inventory was valued at cost because the company's accountant believed that 'the selling price will probably increase again during the next year'.
2. On 28 December of the current year, Martindale Ltd signed a contract with a customer under which Martindale Ltd agreed to manufacture equipment for the customer during January of the following year at a price of $39 000. Martindale Ltd received a cheque for $7500 from the customer on 28 December and made the following entry:

Accounts Receivable	31 500	
Cash at Bank	7 500	
Sales		39 000

3. A new vehicle was purchased at an auction for cash of $32 000. If purchased from the company's normal supplier, the cash price of the machine would have been $38 000. The Vehicles account was debited for $38 000 and the following entry was made:

Vehicles	38 000	
Cash at Bank		32 000
Gain from Bargain Purchase		6 000

4. Ignition security locks were installed in each of Martindale Ltd's six delivery trucks at a cost of $180

each. The trucks had an average remaining useful life of 5 years. The transaction was recorded as:

Repairs Expense	1 080	
Cash at Bank		6 000

5. Building improvements with an estimated useful life of 20 years were completed early in the current year at a cost of $120 000. Martindale Ltd believed that the building to which the improvements were made could be used for only 15 years. To record depreciation for the current year, the accountant made the following entry:

Depreciation Expense	6 000	
Building Improvements		6 000

Required

For each of items (1) to (5), determine which accounting concept(s) (if any) is violated, and explain why. For each violation, indicate the correct treatment.

Problem 10.3 ASSETS AND INCOME LO 6, 7

A legal wrangle developed between the Australian Taxation Office (ATO) and Box Hill Ltd concerning the treatment of certain disputed income tax payments. This prompted ASIC to seek a formal ruling on the dispute and call for full disclosure of the effects of tax disputes in the company's financial statements.

Box Hill Ltd and several other leading companies operated an in-house, tax-minimisation scheme which was unacceptable to the ATO. As a result, the ATO assessed Box Hill Ltd as owing $15 million in tax stemming from the use of the scheme. The company paid the tax to the ATO but then challenged the ATO in court and won its challenge to the assessment in the state Supreme Court. Since then, the ATO has appealed against the decision to the Federal Court, but no decision has yet been made.

In its financial statements at the end of the financial year, Box Hill Ltd included the amount of $15 million as an asset, refundable from the ATO. On reviewing the financial statements, ASIC expressed concern about the treatment of the money expected to be recovered from the ATO as an 'asset', as the amount appeared to affect materially the reported profits of the company. ASIC suggested that disputed taxation assessments do not qualify as items resulting from past transactions or to which a company has a definite legal right.

Required

Discuss whether the disputed amount should be recognised as an asset and as income in the financial statements of Box Hill Ltd.

Problem 10.4 Assets, expenses and liabilities LO 6, 7

Land and Water Waste Disposal Ltd (LAWWD) is a public company providing waste disposal services to private homeowners and to customers in the commercial, industrial and public sectors. Because of its active research program, the company has built a fine reputation as the leading handler of waste products in Adelaide.

During the year ended 30 June 2017, LAWWD undertook an investigation on the feasibility of establishing a waste processing plant in one of Melbourne's eastern suburbs. Financial advisers, engineers, architects and lawyers were consulted to determine the economic and legal feasibility of establishing such a plant. As at 30 June 2017, the company had incurred costs of $800 000 but was still unable to determine clearly the feasibility of the project; these costs were deferred as assets in the company's financial statements.

LAWWD has several long-term contracts which specify that predetermined quantities of waste must be delivered to certain locations each year. The contracts specify that, if LAWWD is unable to deliver the predetermined quantities, shortfalls must be made up in equivalent cash payments. Unfortunately, LAWWD has not developed a system to keep track of exact quantities delivered to each location. It has become an acceptable practice for delivery requirements to be renegotiated during the life of any contract.

Shortly after the end of the financial year ending 30 June 2017, LAWWD was advised by one of its clients, Dorset Ltd, that there was a shortfall in the tonnage of land waste delivered. The cash penalty for this deficiency was approximately $300 000. Because of the long-standing business relationship between the two parties, the management of Dorset Ltd agreed to a future meeting with LAWWD to be held on 30 September 2017 to discuss waiving the penalty and reducing next year's delivery requirements. In the finalisation of its general purpose financial reports at the end of August 2017, LAWWD has not recognised any liability for penalties under this contract.

Required

In light of the ***Conceptual Framework***, discuss LAWWD's treatment in the general purpose financial reports of the costs incurred for the feasibility study, and the penalty under the contract with Dorset Ltd.

Problem 10.5 REPORTING ENTITY, REVENUES AND EXPENSES LO 3, 6, 7

Dowden Machinery Ltd (DML), a reporting entity which distributes heavy-duty equipment to industrial entities, has had a significant increase in sales over the last few years to government departments. By 30 June 2017, the percentage of sales to the government sector had risen to 40% of total sales.

The shareholders of DML are considering an offer to sell the company to Rawson Roads Ltd and have agreed to an audit of the company by Rawson Roads Ltd's auditors, Carson. During their investigations, Carson questioned DML's accounting policies in relation to heavy equipment sales to the government. Sales to government departments were carried out under the following terms.

1. Sales are made at normal retail prices, and the sales price is payable at the date of delivery of the equipment. Ownership title transfers at the date of delivery.
2. DML guarantees to repurchase the equipment for a predetermined sum, either at the completion of a specified period of time (normally 2 years), or based on a specified equipment usage factor.

3. The purchaser is responsible for normal recurring maintenance on the equipment; however, DML is responsible for providing, at no cost to the purchaser, any maintenance above normal levels.
4. The purchaser bears the full risk of any loss on the sold equipment once title has passed and up to the date on which the equipment is repurchased by DML or sold to an independent third party.

DML has followed the policy of recognising revenue on government sales on the date of delivery. The auditors assess that DML's guaranteed price for repurchase of the equipment, as per (2) above, is quite high, and is likely to lead to 70% of all equipment subject to government sales being repurchased by DML. The auditors further assess that DML is likely to incur losses on resale of some of this repurchased equipment.

DML has also followed a policy of not accruing any future costs that may be incurred from its maintenance obligations above the normal level.

Required

A. Briefly discuss how a company such as DML determines whether it is a reporting entity.

B. In light of the ***Conceptual Framework***, discuss DML's treatment in the accounting records of:
   1. the revenue from government sales of heavy equipment, given the guaranteed repurchase option
   2. the treatment of future costs for abnormal maintenance.

Problem 10.6 REVENUES AND EXPENSES LO 6, 7

Celebrity Monthly is a glossy monthly magazine that has been on the market for nearly 2 years. It currently has a circulation across several countries of 1.6 million copies per month. Currently, negotiations are under way for the company that produces the magazine, among other publications, to obtain a loan from a bank in order to upgrade production facilities. The company is currently producing close to capacity and expects to grow at an average of 15% over the next 3 years.

After reviewing the financial statements of the company, the bank loan officer, Joe Teller, has indicated that a loan could be made if the company is able to improve its debt–equity ratio (non-current liabilities divided by equity) and current ratio (current assets divided by current liabilities) to a specified level.

The company's marketing manager, Jess Smith, has devised a plan to meet these requirements. Smith indicates that an advertising campaign can be initiated immediately to increase the company's circulation. The campaign would include:

- an offer to subscribe to ***Celebrity Monthly*** at 75% of the normal price for 1 year
- a special offer to all new subscribers to receive another of the company's publications, ***Age of***

Discovery, at a guaranteed price of $8; ***Age of Discovery*** usually sells for $15.95 and costs $11 to produce
- an unconditional guarantee that any subscriber will receive a full refund if dissatisfied with the magazine.

Although the offer for a full refund is risky, Smith claims that very few people ask for a refund after receiving half of their subscription issues. Smith also claims that other magazine companies have tried this sales campaign and have had great success, with an average cancellation rate of only 25%. Overall, these other companies increased their initial circulation threefold, and in the long run increased circulation to twice that which existed before the promotion. Furthermore, 80% of the new subscribers are expected to take up the ***Age of Discovery*** offer. Smith feels confident that the increased subscriptions from the campaign will increase the current ratio and reduce the debt–equity ratio to the required levels. The managing director agrees.

You are the accountant for the company, and must give your opinion of the accounting treatment for the proposed campaign.

Required

In light of the ***Conceptual Framework***, explain:

1. how you would treat the costs of the advertising campaign
2. when revenue should be recognised from the new subscriptions
3. how you would treat the sales returns stemming from the unconditional guarantee
4. how the extra $8 received per ***Age of Discovery*** should be recorded.

Problem 10.7 CONCEPTUAL FRAMEWORK — INCOME, LIABILITIES AND EQUITY **LO 4, 6, 7**

Landsdale Leasing Ltd (LLL) is the owner–lessor of some high-quality apartment blocks, which have pleasant surroundings of parks and gardens and are only a short walk to a busy shopping centre and to public transport.

In order to achieve tax benefits, the company leased all units in the blocks to its customers for a period of 20 years, requiring all customers to pay for the lease with a lump sum in advance. All units have been leased and LLL has received approximately $30 million in cash.

Since the customers (lessees) were to receive the benefits of their lease over a 20-year period, LLL decided to account for the cash received in advance as deferred lease income, and to use a straight-line basis over 20 years in order to recognise revenue. In LLL's accounts at the end of the year, the deferred lease income was disclosed as a non-current liability.

ASIC objected to this treatment and argued that the item in question should be disclosed in the company's statement of financial position/balance sheet not as a liability but as a separate amount after total equity.

Required

Using the ***Conceptual Framework*** as a guide, discuss whether ASIC's proposed treatment of the $30 million in the financial reports of LLL is correct, stating your reasons. Consider also whether LLL's program for recognising revenue is appropriate.

Problem 10.8 MUSEUM AND ART GALLERY COLLECTIONS — ASSETS? **LO 6, 7**

Read the following extract:

> Museum and art gallery annual general-purpose financial reports may amount to misrepresentations if they include heritage and art collections that are not assets, as defined by the Australian Accounting Standards.
>
> The Australian accounting profession defined an asset in the conceptual framework so that when financial reports are prepared, only those things that meet the requirements can be included. There are two decisions: definition and recognition by valuation.
>
> **Defining an asset**
>
> Accountants know that an asset is a representation of 'future economic benefits' that must be

> accruing to the organisation that prepares the financial reports. That is, for the purposes of the financial reports, any argument that there will be ‘future economic benefits’ to the community at large is irrelevant.
>
> Certainly, public heritage collections have a number of future benefits for individuals and the community generally, but is there any future benefit deriving from the collections which is economic to the museum?
>
> The ‘future economic benefits’ … are the income received from admission fees, other user pays fees, grants and sponsorship. However, these are discounted for various reasons, including the fact that the value of the receipts is a minimum and variable measure of the benefits flowing from the overall operation of a museum. The collections do not generate museums’ net revenues — rather, it is a package of services offered by a museum or gallery that is the chief generator.
>
> Even if a museum can argue that its collections are representations of ‘future economic benefits’ as per the definitions in the accounting standards, the question of whether it is probable that the ‘future economic benefits’ will eventuate must be asked. If museums can find any ‘future economic benefits’, can they list the ‘future economic benefits’ of their collections with any degree of certainty? Is it valid to use current or past data to provide evidence of a future benefit? Can conjecture be evidence? No, of course not.
>
> Yet this is what the accounting profession seems to be encouraging as a result of the writing of the conceptual framework and accounting standards . . .
>
> The ‘future economic benefit’ is only an asset if the museum controls that ‘future economic benefit’. Control ‘means the capacity of the entity to benefit from the asset in the pursuit of the entity’s objectives and to deny or regulate the access of others to that benefit’.
>
> The conceptual framework is very clear that it is ***control,*** not ownership, which is a defining characteristic of an asset . . .
>
> ***Source:*** Tyzack, H 1998, ‘Invisible assets?’, ***Charter***, September, pp. 72–3.

Required

Discuss whether museum and art collections should be recognised as assets on the statement of financial position/balance sheet of a public museum. Do you agree with Tyzack? Why or why not?

Problem 10.9 EXISTENCES OF ASSETS AND LIABILITIES — CONTRACTS **LO 6, 7**

Read the following extract from an article about Bob Jane’s latest business venture:

> He may have turned 80 but there’s no stopping Bob Jane from wheeling and dealing. He recently signed a heads of agreement document with senior Chinese government officials to build three car racing tracks within a single multi-purpose sports venue, car-warehousing facilities, an exhibition centre, accessory outlets and a finance house about 500 kilometres east of Beijing, in the Dalian Huayuankou Economic Zone.
>
> The company Bob Jane (China) is party to an agreement to build a car-racing track capable of hosting a Formula 1 Grand Prix, an oval-shaped speedway and a drag-racing strip. He expects work to start within the next 12 months. ‘I refer to this centre as an automotive hub, and these multipurpose facilities will be available to the public and Chinese government officials,’ says Jane.
>
> ‘Besides hosting domestic motorsport events, people will learn how to drive at this centre, and police, government chauffeurs and public officials will be able to do additional training to sharpen up their road skills.
>
> ‘The centre will sell new cars, tyres, wheels and other accessories and will offer full-service repair workshops. This will be a state-of-the-art hub as China is committed to investing heavily in its automotive industry. China sees automotive growth as being tremendous, and I’m a small party to an investment which could grow to between US$20 billion and US$30 billion before it’s finished. The Chinese are also proposing to build a tennis centre, soccer stadium, golf course and yacht club within the same zone. This is the most exciting venture I’ve ever been involved in after more than 50 years

> in business and I will be spending much more time in China. We've only just started — I've only just signed the deal in Australia with senior Chinese government officials.'
>
> Jane stresses that the deal is between him and Chinese government officials and does not involve his mostly franchised T-Marts tyre empire. Jane remains chairman of Bob Jane T-Marts, but the day-to-day operations are left to his son Rodney, who is chief executive and, like his father, a racing-car driver. Jane, who has been importing tyres from Europe, the US and China for about 45 years, sees his latest deal as an extension of a long business career that began with a leather goods business more than 50 years ago.
>
> ***Source:*** Black, A 2010, 'Still on track', ***InTheBlack***, June, p. 23.
>
> This article was written by the financial journalist Anthony Black who has extensive experience writing on corporate and financial matters. For enquiries on past articles refer to 'anthonyblack3@bigpond.com'.

Required

By referring to the definitions and recognition criteria of the elements of financial reports as contained in the ***Conceptual Framework***, discuss when and how Bob Jane's business should account for the deal signed with the Chinese government officials.

Problem 10.10 CONCEPTUAL FRAMEWORK **LO 6, 7**

Marshall Manufacturing Ltd is a manufacturer of fuel injection systems for the automotive industry. At the beginning of the current financial year, Marshall Manufacturing Ltd entered an agreement with Auto Essentials Ltd to manufacture and to supply to Auto Essentials Ltd 10 000 fuel injection systems at a stipulated price before the end of the financial year. The systems were to be made to the exact specifications required by Auto Essentials Ltd. If Marshall Manufacturing Ltd failed to perform as per the agreement, severe financial penalties were included as part of the contractual arrangements.

The agreement also provided that Auto Essentials Ltd would make royalty payments to Marshall Manufacturing Ltd after each batch of 2000 systems was delivered. Each royalty payment was to be $100 000, and was to be paid by Auto Essentials Ltd for the use of Marshall Manufacturing Ltd's patent rights attached to the fuel injection systems, and to help in supplying working capital to Marshall Manufacturing Ltd during the manufacturing process. The royalty payments were considered to be a part payment of the ultimate selling price, which was receivable in full immediately on delivery of the final batch.

On delivery of the first batch of 2000 systems to Auto Essentials Ltd, the batch was found not to comply with the exact specifications required, and the batch was returned to Marshall Manufacturing Ltd. Auto Essentials Ltd refused to pay the royalty payment attached to that batch until the appropriate modifications had been carried out. Furthermore, Auto Essentials Ltd indicated that, unless the modifications were completed promptly, financial penalties under the contract would be instigated. Marshall Manufacturing Ltd assessed that the modifications would delay completion of all batches by 6 months. Auto Essentials Ltd was prepared to accept this delay without imposing penalties, but indicated that no further delays would be tolerated. If further delays occur, the contract would be cancelled.

Required

Discuss, with reference to the ***Conceptual Framework***, the appropriate accounting treatment in the accounting records of Marshall Manufacturing Ltd for its contract with Auto Essentials Ltd. Pay particular attention to the timing of recognition of the appropriate financial statement elements.

Problem 10.11 LIABILITIES, EQUITY AND EXPENSES **LO 6, 7**

Cambridge Ltd is a public company supplying different types of packaging for the food and beverage industry. Among its products are labels for beer bottles, soft-drink bottles and jam jars and tins, and packages for frozen foods, cheese, yoghurt, confectionery and snack foods.

Cambridge Ltd has reported sales of approximately $25 million for the year ended 30 June 2016. The directors of the company have been considering a public share offer and have contacted a merchant banker to investigate the possibility.

On 15 November 2016, the company made a private placement of 100 000 8% cumulative, redeemable, non-participating preference shares at an issue price of $2.50 per share. The share issue was made for the purpose of financing expansion of needed plant and equipment. Each preference share is convertible into two ordinary shares at the option of the holder, and is subject to mandatory conversion in the event of a public share issue or mandatory redemption in cash on 15 November 2021 for $4.00 per share, whichever occurrence is the earlier. It is expected that no cumulative preference dividends will be due when the preference shares are converted.

In preparing its draft general purpose financial reports for the year ended 30 June 2017, the chief accountant of Cambridge Ltd, Adam Brown, disclosed the preference shares in the equity section. Brown did not adjust periodically the carrying amount of the preference shares for the difference between the issue price and the redemption price.

On examining the draft financial reports, Cambridge Ltd's auditor argued that the preference shares should be regarded as long-term debt financing and reported as non-current liabilities, and that the periodic adjustment, representing the difference between the issue price and the redemption price, should be reported over time as interest expense in the income statement.

Required

Discuss, with reference to the ***Conceptual Framework***, the appropriate accounting treatment for these preference shares and for the potential increase in the redemption price.

Problem 10.12 ASSETS AND LIABILITIES **LO 6, 7**

Carl Caldersmith owns 80% of the issued shares of Caldersmith Commercial Cleaning Ltd (CCC), a distributor of cleaning equipment for industrial purposes. During the annual audit of CCC, the firm's auditors, Standing and Sampson, noticed two irregularities in the accounts and asked Caldersmith to provide reasons for these irregularities.

First, CCC had, in error, been charging GST for the last year on certain equipment sales that were exempt from GST, under the government's roll-back scheme, as they had been sold to various not-for-profit institutions. Caldersmith, as managing director, claimed that it was impractical and costly to refund the GST collected (approximately $150 000) to these customers. These amounts had been transferred to current year's profits.

Second, Standing and Sampson noticed that at the beginning of the current year Caldersmith had advanced $400 000 to CCC, at an interest rate of 8% per year. Because of the concerns of bank creditors as to the weak capital position of CCC at year's end, Caldersmith decided to regard these advances as further capital contributions to CCC, and the $400 000 was recorded as contributed equity. Interest for the current year, totalling $32 000, had been recorded as an expense.

Third, a number of years ago, Caldersmith had purchased and donated to CCC a collection of artworks, which had cost Caldersmith $400 000. CCC had recorded these works in its own records at that price. Caldersmith had these artworks valued by a licensed valuer on 30 June at $1 000 000. CCC passed a journal entry to revalue the artworks and recognise income of $600 000.

Required

In light of the ***Conceptual Framework***, discuss CCC's treatment in the accounts of the GST overcharge, the treatment of Caldersmith's advance plus the interest on the advance, and the artworks.

Problem 10.13 ASSETS AND LIABILITIES **LO 6, 7**

Dampier Dirtworks Company Ltd (DDC) was floated by public subscription on 1 July 2017. The entity so formed engaged in a number of revenue-earning activities which had been previously administered by the government's Maritime Department. However, the government, in order to generate much-needed cash flows, decided to sell these activities to private enterprise.

The two major revenue-earning activities acquired by DDC were as follows.

1. Operation and maintenance of all shipping channels within the port of Eden. After the company was formed, it acquired a number of dredges from the Maritime Department, these being used to prevent silting of shipping channels.

   Constant dredging of the channels and creation of new channels has occurred since the city began, because only limited natural channels exist within the port. In return for undertaking these activities, DDC has the authority to charge shipping fees on all visiting cargo ships using the channels. Many other forms of shipping traffic such as pleasure craft, tourist boats, fishing trawlers, ferries, power boats and jet skis also use these shipping channels because of the shallowness of the port, but are not required to pay any formal shipping fees. No organisation other than DDC is permitted to dredge channels.

2. The basin of the Torrent River on which the port of Eden is situated is very rich in gravel. Hence, as a result of the dredging operations, a very large tonnage of high-quality gravel is dredged by DDC. All gravel is sold under a fixed contract to Croydon Concrete Ltd. Gravel is also quarried by a number of other companies around the port of Eden.

The general manager of DDC is having difficulty in clarifying a number of conceptual and practical issues about the entity he now controls. He is seeking answers to the following questions:

- What assets does DDC have?
- Are the river channels assets or are they a public good?
- Tons of gravel are lying on the river bed, just waiting to be dredged. Is it an asset now, or when it is ‘floating gravel’, or when it is delivered, or at some other time?
- As DDC is required by the government to keep the channels clean or face penalties, is there a liability here? Over how many years?
- Pleasure craft use DDC’s channels. Does this affect the classification of the channels?

Required

As consultant to DDC, provide a report to the general manager to help him determine what items should be included in DDC’s financial statements and how to account for the activities of the business.

DECISION ANALYSIS

Recognition of revenue

Brian Kelly has spent many years of his life panning for gold, with little success. On several occasions, he has found small traces of gold along the usual river banks that he is licensed to pan. However, on his last trip to the Ballarat River, almost by accident he managed to find a very promising piece of rock which he placed in his satchel. He took the rock into town to be examined and valued by experts, who assured him that the rock was a valuable gold nugget and that it was worth at least $60 000. Brian was elated and opened a bottle of champagne to celebrate with his friends.

About 2 weeks later, he sold the nugget to a jeweller for $75 000 in cash.

Required

Based on the ***Conceptual Framework*** and IAS 18/AASB 118 ***Revenue***, decide whether and when revenue exists and on the appropriate time for this revenue to be recognised in the accounts of Brian Kelly, Gold Prospector.

CRITICAL THINKING

Accounting and politics

Visit the websites of the IASB (www.ifrs.org), the FASB (www.fasb.org) and the AASB (www.aasb.com.au).

Required

A. Discuss what influence politics has on the establishment of accounting standards.
B. Examine whether political factors have played a role in the development of accounting standards in Australia, and comment on whether you agree or disagree with the Australian Government’s involvement in the standard-setting process.

INTERNATIONAL ISSUES IN ACCOUNTING

Future considerations

Visit the websites of the IASB (www.ifrs.org) and the AASB (www.aasb.com.au).

Required

A. Find out the major issues currently on the agenda for consideration in future accounting standards, and present a report to the class on the basic requirements of those standards.
B. Determine and report to the class on the latest issues being discussed by the IASB and the FASB in their joint project of revising the conceptual framework.

FINANCIAL ANALYSIS

Refer to the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. From the nature of the report, JB Hi-Fi Limited is a reporting entity. Why is this so?
2. Who would you consider to be the main users of the JB Hi-Fi Limited financial report? What types of decisions would they make based on the information contained in the report?
3. Does JB Hi-Fi Limited use the historical cost system or some other method of valuing assets? Is there any evidence that the company has revalued any of its assets in the past 12 months? Explain.
4. In the report, a summary statistical analysis is often presented. What is the importance of the statement of accounting policies in interpreting these figures? Do you consider that the figures would be of benefit to users of the report?

[1] On 25 June 2013, the AASB issued ED 243 ***Withdrawal of AASB 1031***, which proposes withdrawing AASB 1031 and making consequential amendments in other Australian accounting standards.

CHAPTER 11

Cash management and control

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- how subsidiary ledgers and control accounts are used in an accounting system (pp. 288–90)
- how cash receipts transactions are journalised in a cash receipts journal, and how these transactions are posted to ledger accounts (pp. 295–9)
- how cash payments transactions are journalised in a cash payments journal, and how these transactions are posted to ledger accounts (pp. 299–302)
- the nature of internal control systems and the principles of internal control (pp. 285–8).

Learning Objectives

After studying this chapter you should be able to:

1 define the term ***cash*** as it is used in accounting (p. 478)
2 explain internal control procedures relevant to the control of cash receipts and cash payments (pp. 478–81)
3 identify the purpose and control features in maintaining a bank account (pp. 482–4) and prepare a bank reconciliation statement (pp. 482–90)
4 explain the purpose of a petty cash fund, understand how one operates, and account for petty cash (pp. 490–3)
5 identify the purpose and control features of a cash budget and prepare a cash budget (pp. 493–6)
6 explain the essential principles of cash management (pp. 496–7)
7 describe and apply measures of cash adequacy (p. 497).

Billabong label in trouble

Global surfwear brand Billabong was once a worthless idea on the kitchen table of Gordon and Rena Merchant's flat overlooking Burleigh Heads. And, 40 years later, it is technically back there after the company that owns the fashion label declared it had zero value.

For Mr Merchant, it has been a particularly brutal wipe-out. In 2007, the surfer and environmentalist was on the cusp of having a personal fortune valued at a little more than $900 million, thanks mainly to his large shareholding in Billabong, which was valued by the sharemarket at $3.8 billion.

Mr Merchant's 15 per cent stake in Billabong is today worth only $38 million and the company itself is valued at $250 million — and getting smaller by the day.

This might come as a shock to the legions of loyal surfers who sport Billabong's black-and-white wave design on their jeans, singlets, wetsuits and caps, or to anyone passing a specialist surfwear or department store plastered with the Billabong name.

But as far as the company and its accountants are concerned, Billabong as a brand is now worthless. A consumer downturn from New York to Tokyo has robbed the label of its ability to generate cash and, for modern businesses, investors.

Billabong, which owns a portfolio of surf, skate and youth fashion labels, posted its 2012–13 financial result on Tuesday, which showed the company had recorded a net loss after tax of $860 million.

Buried deep in the accounts, the company admitted that its Billabong brand had gone from a carrying value of $252.17 million last year to zero in 2013.

A collapse in sales and earnings last financial year across the Americas, Australasia and Europe — partly driven by a decision to shut down 170 underperforming stores — saw it write down the value of its flagship Billabong brand to zero, as well as its Element skate brand, effectively making both worthless.

Global sales of $1.34 billion were down 13.5 per cent in reported terms for 2012–13, or 12.6 per cent in constant currency terms. Its flagship Americas operation saw revenue slide 5.7 per cent to $636.7

million with pre-tax earnings flat at $38 million. In Europe sales fell 10.4 per cent to $232.1 million. In Australasia sales were down 6.6 per cent to $471.8 million and earnings were up 5.8 per cent to $2.8 million.

Source: Extracts from Greenblat, E 2013, ‘Billabong set adrift without chief executive’, ***Sydney Morning Herald***, 28 August; and Greenblat, E 2013, ‘Billabong label worthless after cruel wipe-out’, ***Sydney Morning Herald***, 28 August.

Chapter preview

Cash is the one common asset with which all businesses begin, and is the basis for measuring and accounting for all business transactions. Cash is the most liquid asset in a business and can be transferred easily from one person to another and easily transported and converted into other assets. Hence, cash is the asset that is most commonly the subject of theft or fraud.

The chapter scene setter focuses on the importance of managing and controlling cash. Most businesses have a large volume of cash transactions daily, and so the recording of cash transactions has the potential for many errors. Effective control of cash is essential to safeguard it and ensure accuracy of recording transactions. Therefore, two of the most important functions of accounting are accurate ***accounting for cash*** and ***control of cash***. The survival of any business requires careful management of cash inflows and outflows. An essential management tool in achieving this is the cash budget, which forms an essential part of any cash management strategy.

11.1 Cash defined

LO 1 **Define the term *cash* as it is used in accounting.**

Cash is a term used in accounting to identify money, duplicates of credit card and electronic funds transfer at point of sale (EFTPOS) sales, and any other negotiable instrument, such as a cheque or postal note, that a bank or financial institution will normally accept as a deposit to an account. Cash does not include accounts receivable or bills receivable. ‘Cash’ must be readily available to pay liabilities as they fall due, and therefore cannot be subject to any restrictions, contractual or otherwise.

Practically every transaction eventually results in an inflow or outflow of cash. In normal operations, cash refers to cash held in the entity (including petty cash), cash lodged in night safes of financial institutions (e.g. banks), and cash deposits with financial institutions. The sum of all the cash items is reported generally as a single item in the current assets section of the balance sheet. Users of financial statements are interested in the current cash position of an entity because it helps them evaluate the ability of the entity to meet both short-term and long-term obligations falling due for payment in the immediate future.

The control and proper use of cash is an important management function. Cash in hand is, however, an unproductive asset because it produces no income. Effective management of cash should include the following.

- Any cash accumulated that is not needed for current use should be invested, even temporarily, in some type of income-producing activity. Cash funds must be continually monitored and controlled by management, who need to make decisions about how best to use the cash.
- Cash must be adequately protected by controlling access to it and its use by employees.
- Internal control systems for cash receipts and payments should be established.
- The preparation of cash budgets and investment planning are also highly desirable.
- The statement of cash flows is a financial statement that allows decision makers to analyse the sources of cash inflows over a period, and how cash was used over the same period. The classification of cash flows into operating, investing and financing activities can also help decision makers, both internal and external, to evaluate past cash positions and use and to predict future cash flows.

The first four of these points are discussed in more detail in the rest of this chapter. Cash flows are discussed in a later chapter.

LEARNING CHECK

☐ ***Cash*** is a term used in accounting to identify money, duplicates of credit card and EFTPOS sales, and any other negotiable instrument, such as a cheque or postal note, that a bank or financial institution will accept as a deposit.

☐ The control and proper use of cash is an important management function.

11.2 Control of cash

LO 2 Explain internal control procedures relevant to the control of cash receipts and cash payments.

Cash is the asset most subject to theft, and it is therefore important to set up a good internal control system for handling cash and recording cash transactions. Such a system must contain procedures for protecting cash on hand as well as for handling both cash receipts and cash payments. Three particularly important principles of an internal control system for cash are:

- the separation of responsibility for handling and custodianship of cash from responsibility for maintaining the records about cash — prevents misappropriation of cash and falsification of accounting records unless there is collusion among employees
- the banking intact of each day's cash receipts — prevents the cashier from borrowing the funds for a few days and replacing them before they are deposited
- making all payments by electronic transfer to a bank account of another person or entity or by cheque — requires authorisation by designated personnel; the bank record of all cash transactions is a cross-check on the accuracy of the internal cash records of the entity.

Because the details of a system of internal control for cash vary with the size and type of entity, we consider aspects of a general system that might be used. Internal control procedures used to build a system of internal control for cash can be illustrated best by considering cash receipts and cash payments separately.

Control of cash receipts

Cash receipts may come from a variety of sources, the most common being cash sales, cash in the form of cheques received from customers through the mail, interest and dividends received from investments, cash borrowings, and the sale of non-current assets. Each type of receipt has its own characteristics, and internal control procedures appropriate to the particular receipt must be developed. The discussion below concentrates on internal control aspects of cash receipts.

Cash received through the mail

Procedures for the control of cash received in the mail are based heavily on the separation of record keeping and custodianship. The employee who opens the mail, and who should be supervised by another employee, prepares a list of the amounts received. One copy is sent to the cashier along with the cash amounts (usually cheques, credit card authorisations, notes and coins). These amounts are combined with those from the cash registers in preparing the daily bank deposit. Another copy of the list is forwarded to the accounting department for preparing entries in the cash receipts journal and in customers' accounts. Again, neither the mail clerk nor the cashier has access to the accounting records, and accounting department personnel have no access to cash. Thus, fraud is generally avoided unless there is collusion by two or more employees.

Cash receipts from cash sales

Cash received from cash sales, on EFTPOS or on credit cards should be rung up on a cash register located in a position that permits the customer to see the amount recorded. The register prints a receipt that is given to the customer. Registers are usually linked directly to computers used by the accounting department or have a locked-in tape on which each cash sale is recorded. The basis for internal control here is the principle of separation of record keeping from custodianship (discussed more fully in chapter 7).

The register supervisor who collects the cash should not have access to the accounting department computers or to the tape in the register. The cash in the register plus EFTPOS and credit card slips are counted and recorded on a preprinted form that is sent to the accounting department. The cash and slips are then forwarded to the cashier for deposit, and the tape, along with any difference noted, is sent to the accounting department, where it is used to prepare appropriate accounting entries. In this way, neither the register supervisor nor the cashier has access to the accounting records, and the accounting department personnel have no access to cash.

Cash short and over

When several individual cash sales are recorded, it is inevitable that, in spite of internal control measures, some errors are made by cash register operators and customers are given the wrong change. As a result, a cash shortage or cash surplus is discovered when the actual cash in the cash register is compared with the register tape. For example, assume that the cash register records on 4 April shows

that total sales were $1397 ($1270 plus $127 GST), and the cash in the register amounted to $1390. The cash shortage is recorded when the daily sales are recorded as follows (in general journal format):

April	4	Cash at Bank	1 390	
		Cash Short and Over	7	
		Sales		1 270
		GST Payable		127
		(The day's cash sales recorded)		

If the cash count exceeds the amount of sales recorded, the Cash Short and Over account is credited for the difference.

The Cash Short and Over account is closed to the Profit or Loss Summary account at year-end as part of the normal closing process. If the account has a debit balance (shortages exceed cash overs), it is reported as sundry expenses on the income statement. If the account has a credit balance (cash overs exceed shortages), it is normally reported as an item of other income on the income statement.

The above entry is in general journal form for illustration purposes. If special journals are used, the entry is recorded in the cash receipts journal as shown below (selected columns only):

Cash Receipts Journal

		Debits		Credits		
Date	Account	Cash at Bank	Discount Allowed	Sales	Accounts Receivable	GST Payable
April 4	Sales	1 390		1 263		127

As well as the above entry in the cash receipts journal, an entry also needs to be made in the general journal for the amount of cash shortage. The general journal entry is:

April	4	Cash Short and Over	7	
		Sales		7
		(Cash shortage on cash sales)		

Throughout the remainder of this book, we illustrate many cash entries in general journal form; but the reader should remember that the entry can be made in the appropriate special journal if such journals are used.

A summary of how some of the concepts that characterise a good system of internal control, as discussed in chapter 7, can be applied to cash receipts is shown in table 11.1. The application examples are not exhaustive.

Table 11.1 Internal control and cash receipts

Internal control concepts	Cash receipts application
Clear lines of responsibility	Only designated people act as cashiers
Separation of record keeping and custodianship	People who handle cash do not bank cash or record receipts in the accounts
Division of responsibility for related transactions	Mail clerk records receipts through the post while another person supervises
Mechanical and electronic devices	Use of cash registers and EFTPOS equipment
Internal control	One senior staff member records cash receipts daily; another compares total receipts with daily deposits
Physical controls	Use of safe on premises for temporary cash storage, and night safe for deposits
Other	Prenumbered sales dockets and receipt forms if done manually; all receipts banked intact each day

Control of cash payments

Payments are made to cover a wide range of obligations — to pay for cash purchases, to pay suppliers for goods and services, to cover withdrawals by owners, to pay interest and other expenses, to repay loans, and to purchase non-current assets. Determining appropriate procedures for authorisation of electronic payments and the issue of cheques is an essential part of internal control over cash payments. Consider the payment of invoices received from suppliers for purchases made. These procedures are supported by a division of responsibility for the approval and payment of invoices, and involve the following.

- ***Approving invoices for payment.*** Employees designated to approve invoices for payment should have no responsibility for preparing cheques or other payment instruments. They should verify that the goods or services represented by the invoice were properly ordered and actually received before authorising payment, which is generally indicated by placing an approval stamp on the invoice.
- ***Signing cheques and approving electronic transfers.*** Employees responsible for signing cheques or approving electronic transfers of cash should have no invoice approval or accounting responsibilities. Cheques should be signed only on receipt of a properly approved invoice. At the time cheques are signed, the related invoices should be cancelled by placing a ***paid*** stamp or an appropriate computer imprint on them to prevent the possibility of the invoices being presented for payment a second time. Cheques should be prenumbered, so that all cheques can be accounted for.

Approved invoices and copies of the cheques and approved electronic transfers are sent to the accounting department, where appropriate entries are made to record payments. The combination of these procedures makes it difficult for a fraudulent payment to be made without collusion by two or more employees.

Two key elements of effective control of cash payments are:

- use of a business bank account to enable all major payments to be made by cheque or electronic transfer
- use of a petty cash fund to cover small incidental cash payments.

These and their control elements are considered in the following sections.

The same concepts of internal control used in table 11.1 are again used in table 11.2 to illustrate some examples of the application of the concepts to cash payments.

Table 11.2 Internal control and cash payments

Internal control concepts	Cash payments application
Clear lines of responsibility	Designated people authorise payments; only authorised people sign cheques or other payment instruments
Separation of record keeping and custodianship	People who sign payment instruments are not involved with recording payments in accounting records
Division of responsibility for related transactions	Person who authorises payments does not sign the cheques or make the electronic funds transfer
Mechanical and electronic devices	Use of cheque printing machines to prevent changing of amounts
Internal control	Reconcile cheques issued and electronic payments with records kept by bank as shown on bank statement Random checks on petty cash fund balance
Physical controls	Use of safe to store unused blank cheques
Other	Sequentially prenumbered cheques; use of imprest petty cash system

LEARNING CHECK

- Three basic principles of internal control over cash are (1) separation of responsibility for handling cash from that of maintaining cash records, (2) banking intact each day's cash receipts, and (3) making all payments by electronic transfer or cheque.
- Internal control procedures for cash receipts include use of cash registers and EFTPOS equipment, using night safes for deposits, strict supervision of those who handle cash, and use of prenumbered sales dockets.
- Internal control procedures for cash payments include sequentially numbered cheques signed only by authorised people, use of cheque printing machines to prevent changing amounts, random checks on petty cash fund balance, and reconciling cheques issued and authorised electronic funds transfers with records kept by the bank.

11.3 Bank accounts and reconciliation

LO 3 **Identify the purpose and control features in maintaining a bank account and prepare a bank reconciliation statement.**

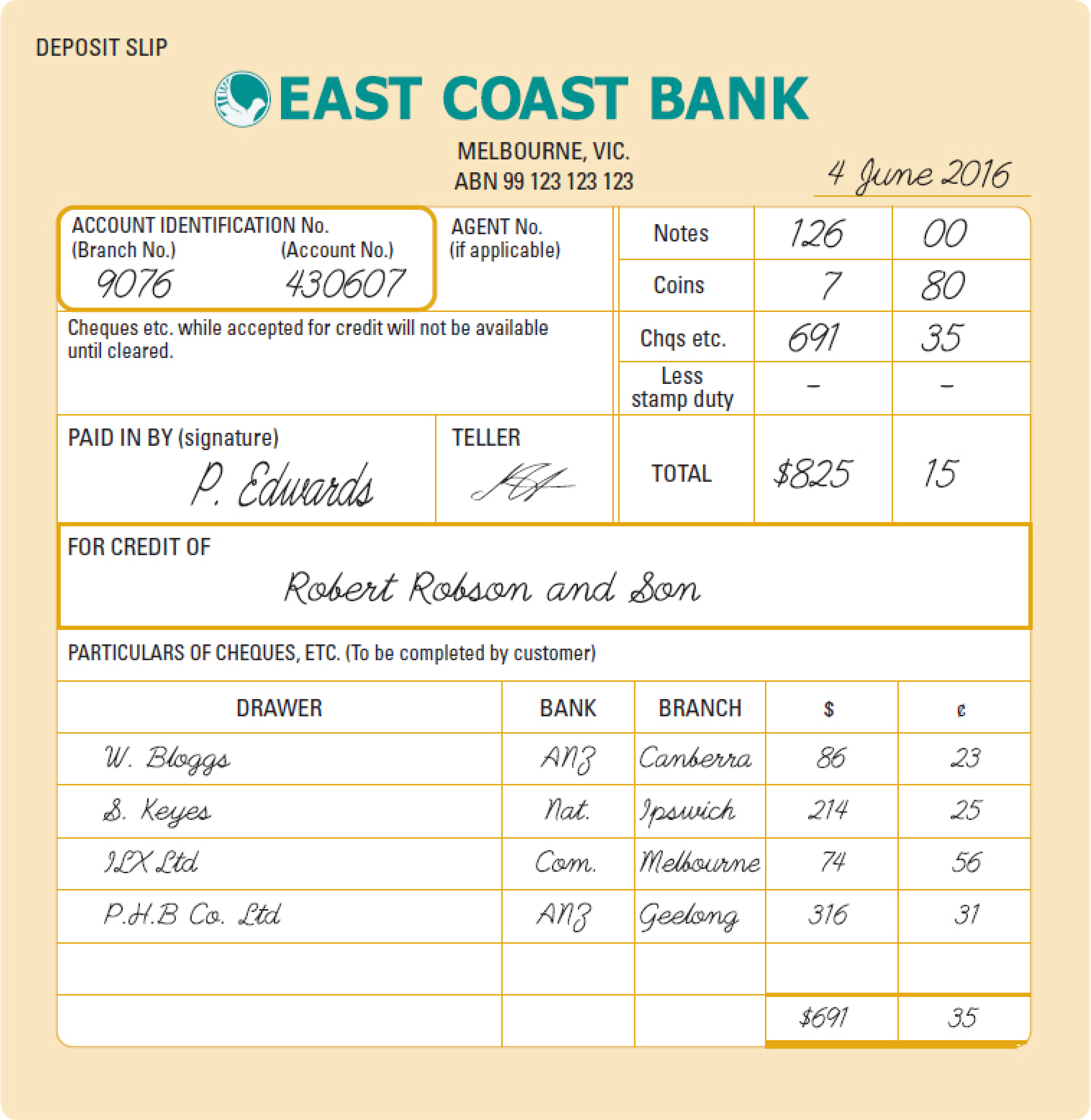
Cheque accounts

An essential element of internal control of cash is the requirement that each day's cash receipts are to be deposited intact into a bank account and that all payments are made by cheques drawn on that account or by properly authorised electronic funds transfer. Internal control is strengthened because the bank record of deposits received, cheques paid and transfers provides an independent cross-check on the internal cash records of the entity. Deposits of cash receipts are made by preparing a deposit slip (see figure 11.1 for a handwritten example). This is prepared electronically in some computerised accounting systems. Any cheque deposited is identified by the drawer and the bank on which the cheque is drawn. The deposit slip is prepared in duplicate; one copy is retained by the bank and the other copy is retained by the depositor.

Cheques are legal instruments and are defined in the ***Cheques Act 1986*** as an unconditional order in writing addressed by one person to another person (being a financial institution), signed by the person giving it and requiring the financial institution to pay on demand a certain sum in money. Figure 11.2 shows a copy of a typical cheque.

Note that cheques are not legal tender, i.e. they do not have to be accepted if offered in payment of a debt. However, they are commonly accepted in business. Although a significant proportion of business payments are made by cheque, electronic funds transfer are gradually replacing cheques.

Figure 11.1 A completed deposit slip



DEPOSIT SLIP

EAST COAST BANK

MELBOURNE, VIC.
ABN 99 123 123 123

4 June 2016

ACCOUNT IDENTIFICATION No.
(Branch No.) 9076
(Account No.) 430607

AGENT No.
(if applicable)

Cheques etc. while accepted for credit will not be available until cleared.

Notes	126	00
Coins	7	80
Chqs etc.	691	35
Less stamp duty	–	–
TOTAL	$825	15

PAID IN BY (signature) P. Edwards

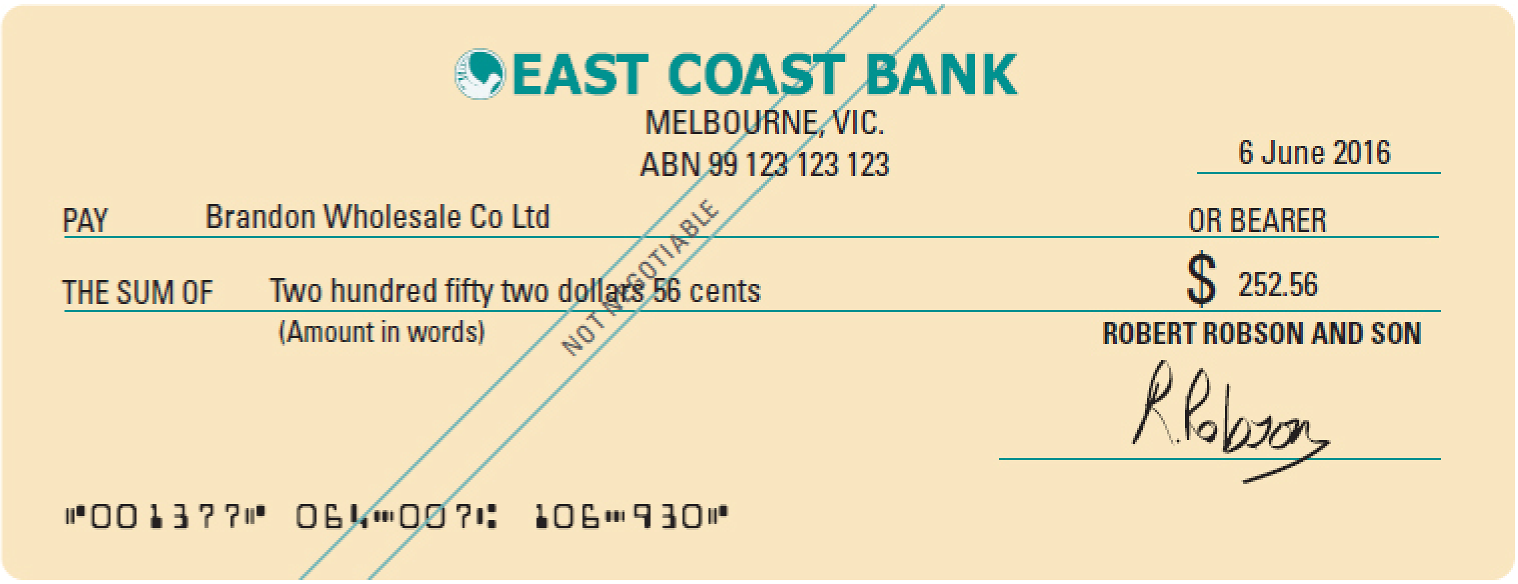
TELLER

FOR CREDIT OF Robert Robson and Son

PARTICULARS OF CHEQUES, ETC. (To be completed by customer)

DRAWER	BANK	BRANCH	$	¢
W. Bloggs	ANZ	Canberra	86	23
S. Keyes	Nat.	Ipswich	214	25
ILX Ltd	Com.	Melbourne	74	56
P.H.B Co. Ltd	ANZ	Geelong	316	31
			$691	35

Figure 11.2 A completed cheque


EAST COAST BANK
MELBOURNE, VIC.
ABN 99 123 123 123

6 June 2016

PAY Brandon Wholesale Co Ltd OR BEARER

THE SUM OF Two hundred fifty two dollars 56 cents
(Amount in words)

$ 252.56

NOT NEGOTIABLE

ROBERT ROBSON AND SON
R.Robson

⑈001377⑈ 064⑉007⑆ 106⑉930⑈

Cheques, as with other forms of currency, are subject to misappropriation, and every effort should be made to protect the interests of all parties to a cheque. Therefore, unless cheques are to be cashed they should be 'crossed' (two parallel straight lines drawn across the face of the cheque) and the words 'not negotiable' placed within the crossing. Some cheques issued are open or bearer cheques, which the issuing bank will honour regardless of who presents the cheque for payment. Cheques can be made payable to 'order' by deleting the word 'bearer' and including the words 'only' or 'order only' on the face of the cheque.

Use of electronic funds transfer

The cost of processing cheques through the banking system is high. Considerable delays of up to 5 working days exist in the clearing process for cheques. With electronic funds transfer (EFT), money is transferred from one location to another almost instantaneously using computers. This not only speeds up the transfer of money but also helps reduce the cost by reducing the amount of documentation (cheques and deposit slips, etc.) and labour required. EFT is now widespread with such common uses as the payment of employee wages by electronic transfer to bank accounts nominated by employees. EFT opens up the possibility of a 'chequeless society'. However, given the small number of people involved in such a system, internal control becomes more difficult. It opens up many new possibilities for fraud and error because the process is highly automated and transfers, which happen quickly, are sometimes difficult to monitor. For example, in 2009–10 an Australian university cashier siphoned $27 million into his own accounts using electronic transfers. He used his own password and that of a casual staff member who was away when the frauds were perpetrated.

Banks also have made available and encourage the use of facilities for electronic banking by customers. Customers are given access to software, software instructions and access codes for use with a personal computer and they are then able to operate their accounts, including accounts payable, via the internet. Banks also provide customers with phone banking facilities. Internet banking has increased security risk and users must make sure their online access details are protected by using a firewall, anti-spyware and anti-virus software.

The bank statement

Each month (or as arranged) the bank sends the entity a **bank statement** detailing the activity that has taken place in the account during the month. A list of bank transactions can also be downloaded from the bank's website directly into accounting packages such as MYOB, MSMoney or Quicken. The bank statement is a statement of the bank's liability to the entity rather than a statement of the entity's asset, as commonly assumed. The statement shows the balance in the account at the beginning of the month, the individual deposits received (credited by the bank as they increase the bank's liability to the entity), cheques that have been presented and paid and electronic payments made during the month (debited by the bank as they decrease the bank's liability to the entity), any other adjustments made during the month, and the account balance at month-end. The balance in the account normally represents a liability on the part of the bank and is therefore reflected in the bank’s records by a credit balance. An example of a bank statement is shown in figure 11.3.

Note that the bank statement is nothing more than a running balance account. If the opening balance is in credit, debit entries reduce the running balance, and credit entries increase the running balance. If the opening balance is in debit, i.e. the business bank account is overdrawn or in overdraft, debit and credit entries will have the opposite effect.

The most common entries in the credit column are the deposits made to the account. Other credit entries are those that normally increase the depositor’s balance, and include collections made by the bank on behalf of the business, other third-party deposits paid directly to the bank, and direct-deposit electronic transfers. Particulars of the source of the deposit appear in the ‘Particulars’ column. The most common entries in the debit column are cheques and EFTs that have been paid by the bank as evidenced by cheque and EFTs numbers in the ‘Particulars’ column. Other debits arise from direct payments authorised to be made by the bank (payment authorities) and other charges made against the account. Common charges seen on bank statements include account-keeping fees and transaction fees.

Another common debit made by the bank is to cover **dishonoured cheques** — cheques that were included in a customer’s deposit but were not paid by the drawer’s bank because of some irregularity or lack of sufficient funds to cover the cheque. Dishonoured cheques are charged back to the depositor’s account and the depositor is notified. An entry is made in the cash receipts journal with the amount recorded as a negative amount to offset the original deposit, as demonstrated in the illustrative example beginning on page 487. Generally, GST will not appear on bank statements since financial transactions are exempt from the GST.

It is important to realise, especially for the discussion in the following section, that theoretically the bank statement should reflect exactly the same transactions and events as those that are recorded in the cash journals and the Cash at Bank account of the related business. Assuming that an entity has not withdrawn more than it has deposited into the bank account, the opening balance is a debit in the Cash at Bank account in the ledger (an asset to the entity) but appears as a credit in the bank statement (liability to the bank). The same applies to the ending balance. If the entity has arranged with its bank to overdraw its current account (i.e. it has an overdraft), the nature of the balances in the two sets of records is reversed.

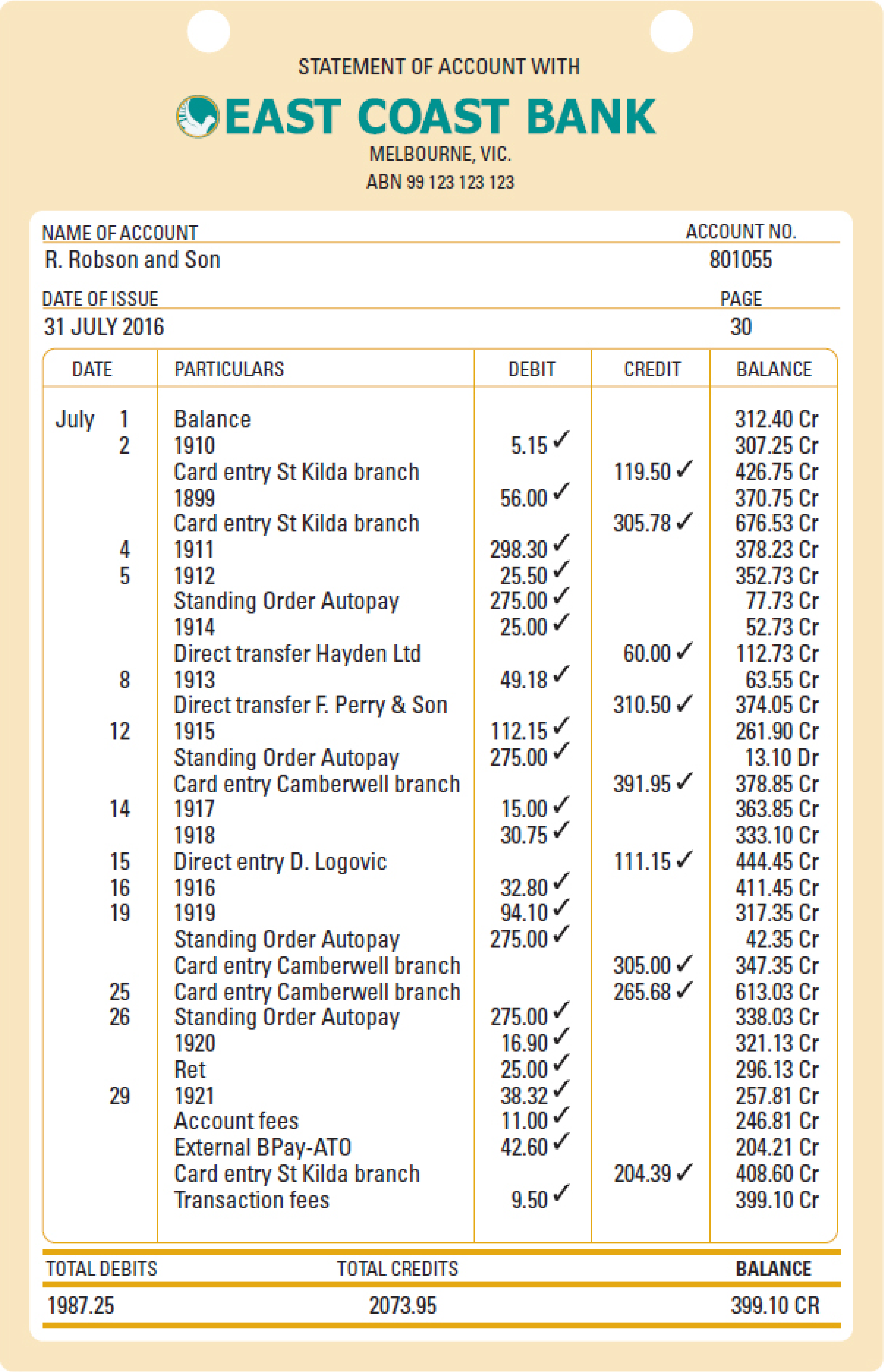
Deposits made by the entity are entered in the cash receipts journal and ultimately debited to the Cash at Bank account (increasing an asset of the entity), and the same deposits appear as credits in the bank statement (increasing the liability of the bank). Withdrawals made by the entity from its bank account by cheques and other arrangements with the bank are entered in the cash payments journal and ultimately credited to the Cash at Bank account (decreasing an asset of the entity), and the same withdrawals appear as debits in the bank statement (decreasing a liability of the bank). In practice, however, differences do arise in an entity’s records of its transactions with its bank and the records maintained by the bank. This aspect is discussed fully in the next section.

Bank reconciliation

As indicated before, the Cash at Bank account balance at a particular date rarely agrees with the balance shown on a bank statement of the same date. To prove the accuracy of both records it is necessary to compare them, identify factors that have caused a variation in the balances, and satisfy oneself that if these factors are taken into account the two sets of records agree. This process is referred to as reconciling the bank’s balance as disclosed on the bank statement to the balance shown in the Cash at Bank account of the depositor. For effective control, this process should be carried out at least once a month. To formalise this process of reconciliation, a special statement called a **bank reconciliation statement** is prepared.

The reconciliation process is concerned with identifying the transactions and entries that cause the balances in the Cash at Bank account and the bank statement to differ at a particular date. There are three main reasons that the two records may disagree over the same period of time.

Figure 11.3 A bank statement



STATEMENT OF ACCOUNT WITH

EAST COAST BANK

MELBOURNE, VIC.
ABN 99 123 123 123

NAME OF ACCOUNT	ACCOUNT NO.
R. Robson and Son	801055
DATE OF ISSUE	PAGE
31 JULY 2016	30

DATE	PARTICULARS	DEBIT	CREDIT	BALANCE
July 1	Balance			312.40 Cr
2	1910	5.15 ✓		307.25 Cr
	Card entry St Kilda branch		119.50 ✓	426.75 Cr
	1899	56.00 ✓		370.75 Cr
	Card entry St Kilda branch		305.78 ✓	676.53 Cr
4	1911	298.30 ✓		378.23 Cr
5	1912	25.50 ✓		352.73 Cr
	Standing Order Autopay	275.00 ✓		77.73 Cr
	1914	25.00 ✓		52.73 Cr
	Direct transfer Hayden Ltd		60.00 ✓	112.73 Cr
8	1913	49.18 ✓		63.55 Cr
	Direct transfer F. Perry & Son		310.50 ✓	374.05 Cr
12	1915	112.15 ✓		261.90 Cr
	Standing Order Autopay	275.00 ✓		13.10 Dr
	Card entry Camberwell branch		391.95 ✓	378.85 Cr
14	1917	15.00 ✓		363.85 Cr
	1918	30.75 ✓		333.10 Cr
15	Direct entry D. Logovic		111.15 ✓	444.45 Cr
16	1916	32.80 ✓		411.45 Cr
19	1919	94.10 ✓		317.35 Cr
	Standing Order Autopay	275.00 ✓		42.35 Cr
	Card entry Camberwell branch		305.00 ✓	347.35 Cr
25	Card entry Camberwell branch		265.68 ✓	613.03 Cr
26	Standing Order Autopay	275.00 ✓		338.03 Cr
	1920	16.90 ✓		321.13 Cr
	Ret	25.00 ✓		296.13 Cr
29	1921	38.32 ✓		257.81 Cr
	Account fees	11.00 ✓		246.81 Cr
	External BPay-ATO	42.60 ✓		204.21 Cr
	Card entry St Kilda branch		204.39 ✓	408.60 Cr
	Transaction fees	9.50 ✓		399.10 Cr

TOTAL DEBITS	TOTAL CREDITS	**BALANCE**
1987.25	2073.95	399.10 CR

Note: Ticks have been added as part of the reconciliation procedure in the illustrative example beginning on page 487.

1. ***Some items recorded in the entity's cash journals in the period covered are not recorded by the bank on the bank statement for the same period.*** These include:
    (a) **unpresented or outstanding cheques** drawn by the entity — these are entered in the entity's cash payments journal when drawn and may not have been presented to the paying bank for recording by the date the bank statement is completed
    (b) outstanding or late deposits, or deposits in transit — the entity may show cash receipts on the last day of the month recorded in its cash receipts journal but this deposit may have to be held over to the following day for banking and hence recording by the bank.
2. ***Some items originate in the bank statement.*** These include bank fees and charges and interest, dishonoured (Ret for 'returned') cheques and bills of exchange or promissory notes forming all or part of a previous deposit or lodgement, any deposits made directly to the entity's bank account, and electronic transfers. The first indication the entity receives of these transactions is normally the bank statement.
3. ***Errors may have been made either by the entity in the cash journals or by the bank in the entity's account and bank statement.*** For example, a cheque for $89 payable to A.B. Motors Ltd could be incorrectly shown in the cash payments journal as $98. This would cause a discrepancy of $9 between the two records. Again the bank may in error have debited the amount of a cheque drawn by another entity to this particular entity's business account, or the bank may have recorded an amount incorrectly in the account of the entity.

Reconciliation procedure

To prepare a bank reconciliation statement, the following is required:

- the last bank reconciliation statement prepared
- cash receipts and cash payments journals covering the period since the last reconciliation
- the opening balance of the Cash at Bank account for the period beginning with the preparation of the last reconciliation statement
- the bank statement covering the period since last reconciliation.

The procedures to be followed in the preparation of the bank reconciliation statement are outlined below.

Step 1. Check that outstanding items and errors included in the last reconciliation statement now appear in the bank statement for the current period. Any items not adjusted for in the current bank statement must be noted and again included in the current reconciliation statement when prepared.

Step 2. Compare the entries in the cash receipts journal with the entries in the credit column of the bank statement, and the entries in the cash payments journal with the debit column of the bank statement. Entries that appear in both the cash journals and the bank statement should be ticked or otherwise marked. These items will not be responsible for any variations between the entity's and bank's records, including the ending balances. Unticked entries will then fall into the following categories:

(a) outstanding or late deposits
(b) unpresented cheques
(c) items on the bank statement that have been initiated by the bank
(d) errors made in entering items in the cash journals and/or errors made in the preparation of the bank statement by the bank.

Entries under (a) appear only in the cash receipts journal, and entries under (b) appear only in the cash payments journal. Initially, entries under (c) appear only in the bank statement. Entries under (d) could appear in either set of records.

Step 3. Enter all the items that appear under item (c) in step 2 in the appropriate cash journals. Once these items have been entered into the cash journals they can be ticked, since they are now common to both sets of records, and hence of no further concern in the reconciliation process.

Step 4. Adjust the cash journals for any errors that exist in these journals. Once these errors have been adjusted, the entries should agree with the bank statement entries and can be ticked off. Note that errors appearing in the bank statement can be corrected only by the bank. The bank should be

notified of these errors so that it can correct them. These items therefore must remain unticked and will appear in the bank reconciliation statement. The error should be corrected in the subsequent bank statement.

Step 5. The cash journals should now be totalled and crossadded and the appropriate totals posted to the Cash at Bank account in the general ledger. This account can then be balanced to give the final adjusted balance as recorded by the entity.

Step 6. Prepare the bank reconciliation statement. Note that at this stage the only normal entries that cause a difference to exist between the final balance of the Cash at Bank account and the final balance shown on the bank statement are those items that appear in the cash journals but not in the bank statement — items (a) and (b) in step 2. These items represent outstanding deposits and unpresented cheques. Errors made in the preparation of the bank statement also need to be taken into account. Any outstanding items in the previous reconciliation statement that are still outstanding need to be included in the current reconciliation statement.

A typical reconciliation statement is shown below:

R. ROBSON AND SON
Bank Reconciliation Statement
as at...2016

Balance as per bank statement Cr (or Dr)		$XXX
Add (or deduct) outstanding deposits		XXX
		XXX
Deduct (or add) unpresented cheques	XX	
	XX	
	XX	XXX
Balance as per Cash at Bank account (Dr or Cr)		$XXX

The following example illustrates the procedure outlined above.

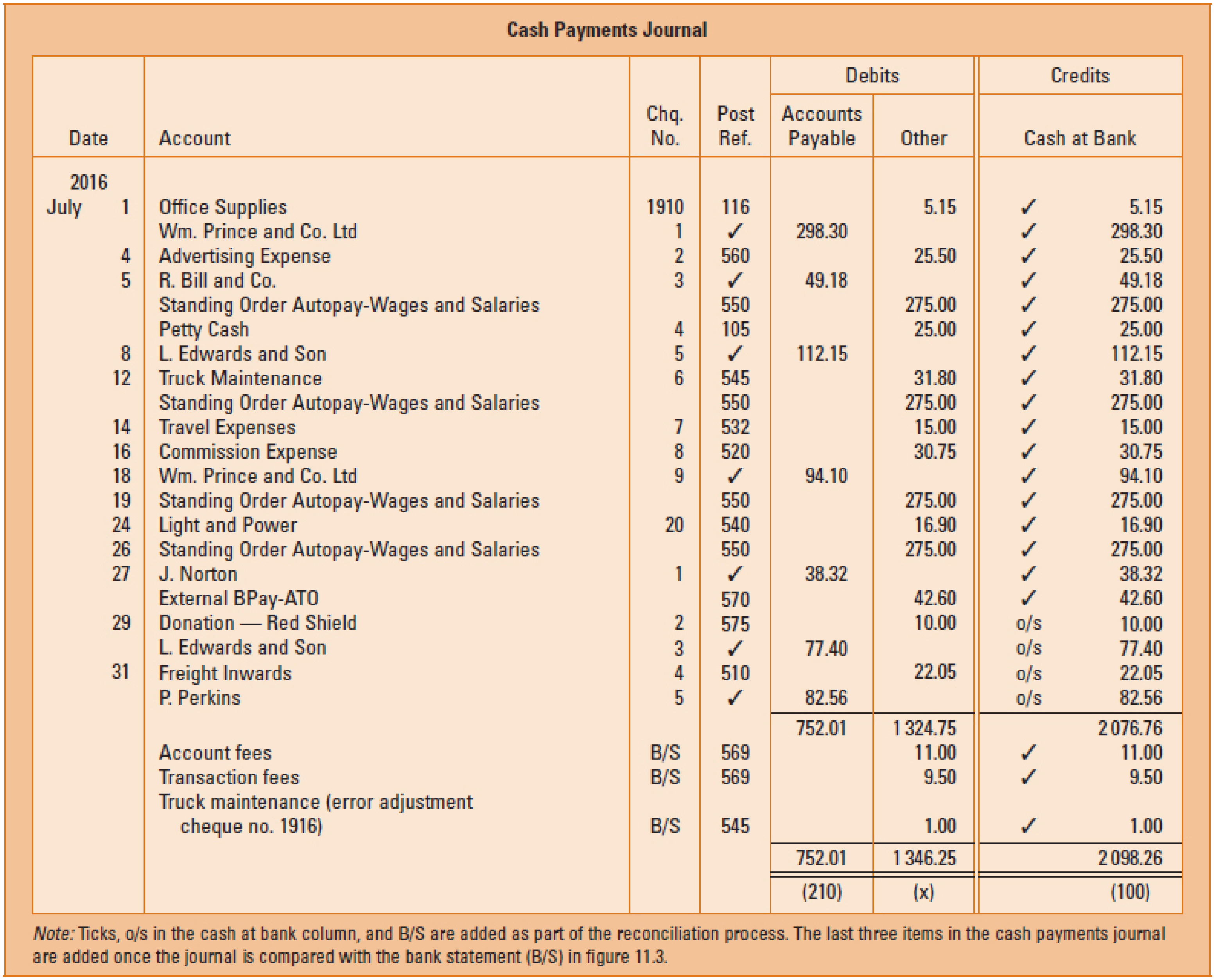
Illustrative example

The bank statement of R. Robson and Son up to 31 July 2016 is shown in figure 11.3 (p. 485). Figure 11.4 (p. 488) and figure 11.5 (p. 489) show the cash payments journal and the cash receipts journal respectively up to 31 July 2016. The bank reconciliation statement ***for the previous month*** is set out in figure 11.6 (p. 489). Requirements are to reconcile the two sets of records and prepare a bank reconciliation statement after making any necessary adjustments in the cash journals and Cash at Bank account. It is assumed in this example that there are no errors made by the bank. The procedure follows the general steps outlined previously.

Step 1. A check is made on the reconciliation statement prepared at 30 June to see whether items outstanding at that time appear in the current bank statement. The outstanding deposit has been recorded by the bank and therefore can be ticked off in both records. Similarly, cheque number 1899 for $56 unpresented at 30 June has been paid by the bank. The $56 can be ticked off in both records.

Step 2. Compare the deposits recorded in the cash receipts journal (figure 11.5) with the entries shown in the credit column of the bank statement (figure 11.3). All entries agree (e.g. for 2 July, $305.78 = $110.60 + $195.18) except for the deposit of $219.40 recorded in the cash receipts journal as having been banked on 31 July. Since the deposit does not appear in the bank statement it is marked o/s (i.e. outstanding). This item must appear in the bank reconciliation statement. Note that the cheque received from R. Richards and banked on 19 July has been returned on 27 July. Because this is entered in both records, it will not appear in the bank reconciliation statement. Cheques and electronic transfers recorded in the cash payments journal are then compared with the debit column of the bank statement, and items common to both are ticked off. Cheques 1922 to 1925 have not been presented for payment since they are absent from the bank statement. These cheques are marked o/s and therefore will be included in the bank reconciliation statement.

Figure 11.4 Cash payments journal of R. Robson and Son



Cash Payments Journal

Date		Account	Chq. No.	Post Ref.	Debits		Credits	
					Accounts Payable	Other	Cash at Bank	
2016								
July	1	Office Supplies	1910	116		5.15	✓	5.15
		Wm. Prince and Co. Ltd	1	✓	298.30		✓	298.30
	4	Advertising Expense	2	560		25.50	✓	25.50
	5	R. Bill and Co.	3	✓	49.18		✓	49.18
		Standing Order Autopay-Wages and Salaries		550		275.00	✓	275.00
		Petty Cash	4	105		25.00	✓	25.00
	8	L. Edwards and Son	5	✓	112.15		✓	112.15
	12	Truck Maintenance	6	545		31.80	✓	31.80
		Standing Order Autopay-Wages and Salaries		550		275.00	✓	275.00
	14	Travel Expenses	7	532		15.00	✓	15.00
	16	Commission Expense	8	520		30.75	✓	30.75
	18	Wm. Prince and Co. Ltd	9	✓	94.10		✓	94.10
	19	Standing Order Autopay-Wages and Salaries		550		275.00	✓	275.00
	24	Light and Power	20	540		16.90	✓	16.90
	26	Standing Order Autopay-Wages and Salaries		550		275.00	✓	275.00
	27	J. Norton	1	✓	38.32		✓	38.32
		External BPay-ATO		570		42.60	✓	42.60
	29	Donation — Red Shield	2	575		10.00	o/s	10.00
		L. Edwards and Son	3	✓	77.40		o/s	77.40
	31	Freight Inwards	4	510		22.05	o/s	22.05
		P. Perkins	5	✓	82.56		o/s	82.56
					752.01	1 324.75		2 076.76
		Account fees	B/S	569		11.00	✓	11.00
		Transaction fees	B/S	569		9.50	✓	9.50
		Truck maintenance (error adjustment cheque no. 1916)	B/S	545		1.00	✓	1.00
					752.01	1 346.25		2 098.26
					(210)	(x)		(100)

Note: Ticks, o/s in the cash at bank column, and B/S are added as part of the reconciliation process. The last three items in the cash payments journal are added once the journal is compared with the bank statement (B/S) in figure 11.3.

Step 3. Step 2, apart from identifying a number of outstanding cheques, also uncovers a number of items initiated by the bank, e.g. transaction and account keeping fees and an error made in recording cheque 1916 in the cash payments journal. These items can be entered into the cash payments journal (see bottom of the cash payments journal in figure 11.4), and can therefore be ticked off in both sets of records since they now appear in both. Note that at this stage all amounts appearing in the bank statement should be ticked except for any errors made by the bank. As there are no errors made by the bank, all amounts are ticked.

Step 4. Adjust errors in the cash journals if there are any. In this illustration, there is one in relation to cheque 1916 as uncovered in the bank statement in step 3.

Step 5. The cash journals are then totalled, crossadded and posted. The Cash at Bank account can now be balanced to give the balance of the bank account according to business records (figure 11.7, p. 490).

Step 6. The bank reconciliation statement can be prepared (figure 11.7) using the unticked items that appear in the cash journals (see figures 11.4 and 11.5).

Figure 11.5 Cash receipts journal of R. Robson and Son

Cash Receipts Journal

Date		Account	Post Ref.	Debits		Credits	
				Discount Allowed	Cash at Bank	Accounts Receivable	Sales
2016							
July	2	M. Mason	✓		✓ 110.60	110.60	
		Sales			✓ 195.18		195.18
	5	Hayden Ltd	✓		✓ 60.00	60.00	
	8	F. Perry & Son	✓		✓ 310.50	310.50	
	12	Sales			✓ 136.20		136.20
		H. Lawson	✓		✓ 85.00	85.00	
		W. Wentworth	✓		✓ 170.75	170.75	
	15	Sales			✓ 111.15		111.15
	19	R. Richards	✓		✓ 25.00	25.00	
		Morley Co-op	✓		✓ 280.00	280.00	
	25	Sales			✓ 77.18		77.18
		M. Mason	✓		✓ 140.00	140.00	
		Hayden Ltd	✓		✓ 48.50	48.50	
	27	R. Richards (dishonoured cheque)	✓		✓ (25.00)	(25.00)	
	29	Sales			✓ 204.39		204.39
	31	Sales			o/s 219.40		219.40
					2 148.85	1 205.35	943.50
					(100)	(110)	(400)

Note: Ticks and o/s in the cash at bank column are added as part of the reconciliation process.

Figure 11.6 Bank reconciliation statement for previous month

R. ROBSON AND SON
Bank Reconciliation Statement
as at 30 June 2016 (previous month)

Balance as per bank statement	$312.40 Cr
Add: Outstanding deposits	119.50
	431.90
Less: Unpresented cheque no. 1899	56.00
Balance as per Cash at Bank account	$375.90 Dr

Note: Ticks are added as part of the reconciliation process.

The bank reconciliation statement in figure 11.7 could be interpreted in the following way. The depositor's or entity's records of depositing into and withdrawing from the bank are as up to date as is possible, having incorporated all transactions originating within the entity and within the bank. The bank statement is also as up to date as the bank can make it, but the bank has not been able to record a deposit made on the last day, nor can it record the payment of cheques from the account if the cheques have not yet been presented for payment.

The reconciliation statement has been prepared with the following question in mind: 'What would the bank's balance be if the bank was able to include those items that appear in the entity's records but not in the bank statement?' In the illustration, it can be seen that if the balance as shown in the bank statement is adjusted for those items not able to be recorded by the bank at 31 July, then the bank statement balance will be in agreement with the balance arrived at from records kept by the entity. As noted above, this reconciliation of the bank statement balance to the balance in the entity's Cash at Bank account provides an important control technique by verifying the entity's records of deposits to and withdrawals from the bank account with independently kept records of the same transactions.

Figure 11.7 Cash at Bank account and bank reconciliation statement

Cash at Bank

2016					2016				
July	1	Balance		375.90	July	31		CP15	2 098.26
	31		CR15	2 148.85			Balance c/d		426.49
				2 524.75					2 524.75
Aug.	1	Balance b/d		426.49					

Bank Reconciliation Statement
as at 31 July 2016

Balance as per bank statement		$399.10 Cr
Add: Outstanding deposit		219.40
		618.50
Less: Unpresented cheques		
1922	$10.00	
1923	77.40	
1924	22.05	
1925	82.56	192.01
Balance as per Cash at Bank account		$426.49 Dr

Note that the bank statement was the source of evidence for recording, in the cash payments journal, transaction fees, $9.50, the error in cheque no. 1916, $1.00, and account fees, $11.00.

BUSINESS KNOWLEDGE

Computers and reconciliation

The method of bank reconciliation used in computerised accounting systems differs from one system to another. A common approach used in MYOB Accounting is to compare the bank statement with receipts and payments in a manner similar to the manual method described. Items on the bank statement are checked on the computer screen and items on the bank statement not already entered are recorded. The program then produces a reconciliation report.

It is now possible to download statement data from the bank to further simplify the reconciliation process.

LEARNING CHECK

☐ Having a cheque account with a financial institution provides an important element of control over cash because the records kept independently by the financial institution can be compared with those maintained by the entity.

☐ All payments by an entity should be made by cheque or by properly authorised electronic funds transfer.

☐ The bank statement details all activity that has taken place in the entity's account during the period covered by the statement.

☐ A bank reconciliation statement is prepared by an entity to reconcile the balance shown on the bank statement with the balance shown in the Cash at Bank account at the same date.

11.4 The petty cash fund

LO 4 Explain the purpose of a petty cash fund, understand how one operates, and account for petty cash.

As emphasised earlier, a basic principle of internal control is that all payments should be made by cheque or electronic transfer. However, to avoid the expense and inconvenience of writing many cheques to cover minor or petty expenses for things like postage stamps and miscellaneous supplies, most entities establish a **petty cash fund** — a specified amount of cash, placed under the control of a specific employee (the petty cashier) — for making small payments.

Establishing the fund

The petty cash fund is established by writing a cheque to be given to the petty cashier, who cashes the cheque and places the proceeds in a lockable box to which only they have access. The fund is

generally established for a round amount, such as $100 or $200, expected to be sufficient to handle petty cash payments for a relatively short period such as a month. The cheque is recorded by a debit to a Petty Cash account and a credit to the Cash at Bank account. For example, assuming a fund of $100 is established on 2 January, the journal entry (in general journal format) is:

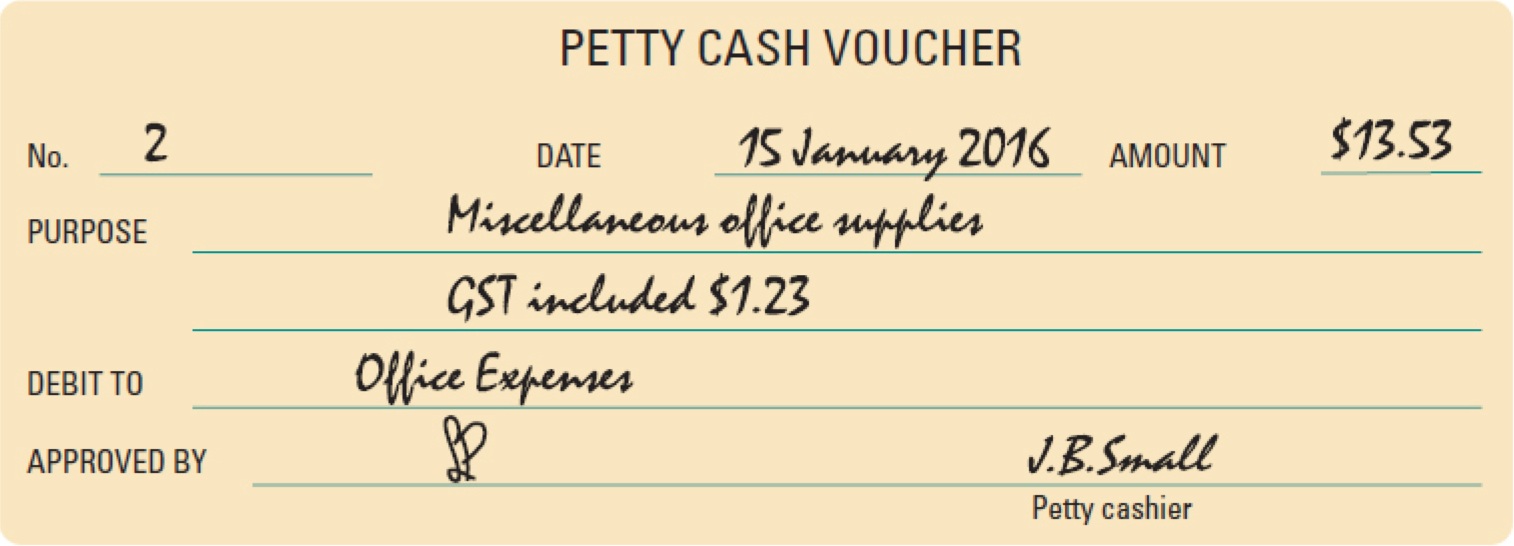
Jan.	2	Petty Cash	100	
		Cash at Bank		100
		(Petty cash fund established)		

If special journals are being used, the entry to record the establishment of the petty cash fund is made in the cash payments journal. Petty Cash is entered in the account column and the amount of $100 is entered in the cash at bank and other accounts columns. After posting, the effect is the same as for the general journal entry, i.e. the Petty Cash account in the general ledger is debited and the Cash at Bank account is credited.

Making payments from the fund

As cash payments are made from the fund, the recipient signs a **petty cash voucher** or **receipt** prepared by the petty cashier. The voucher shows the amount paid, the purpose of the payment and the date paid. A voucher is prepared for every payment made from the fund and is placed in the petty cash box. Outlays on most of the expenses and minor assets covered by petty cash payments will include GST. The petty cashier must ensure that expenses are recorded at GST-exclusive amounts, and that adequate records are made of any GST receivable associated with these expenses. Thus, at all times the total of the vouchers plus cash in the fund should be equal to the amount originally placed in the fund, $100 in our illustration. Figure 11.8 shows an example of a petty cash voucher.

Figure 11.8 A petty cash voucher



PETTY CASH VOUCHER

No. 2 DATE 15 January 2016 AMOUNT $13.53

PURPOSE Miscellaneous office supplies

GST included $1.23

DEBIT TO Office Expenses

APPROVED BY J.B.Small

Petty cashier

Reimbursing the fund

Because payments from the fund will gradually decrease the cash available, the petty cashier must be reimbursed periodically by writing a cheque equal to the amount of the sum of the vouchers in the fund. Each voucher is stamped ***paid*** by the cashier (or printed as being paid when processed by the computer system). The cheque is cashed by the cashier of the fund and the proceeds are placed in the petty cash box. Various expense accounts are debited as indicated by the petty cash vouchers, the GST Receivable account is debited for the GST, and Cash at Bank is credited for the amount needed to reimburse the fund. For example, the petty cash box had vouchers and cash at the end of the first month of operations as shown below:

Voucher no.	Purpose	GST	Amount	Total
1	Postage stamps	$3.00	$30.00	$ 33.00
2	Office supplies	1.23	12.30	13.53
3	Postage	2.65	26.47	29.12
4	Stationery	1.52	15.22	16.74
	Cash in box	—	—	7.61
		$8.40	$83.99	$100.00

Because the cash in the fund is low, the petty cashier is reimbursed and the following entry (in general journal format) is made:

Jan.	31	Stationery Expense	15.22	
		Office Supplies Expense	12.30	
		Postage Expense	56.47	
		GST Receivable	8.40	
		Cash at Bank		92.39
		(Petty cash fund reimbursement)		

Since the petty cash vouchers are supplementary records, this entry is needed so that the expenses are properly recorded and posted to general ledger accounts. Thus, expense accounts and the GST Receivable account are debited when the fund is replenished. Note that the Petty Cash account is not affected by the reimbursement entry. The Petty Cash account is debited only when the fund is initially established, and no other entries are made to the Petty Cash account unless a decision is made to increase or decrease the size of the fund. The petty cash fund is normally included with other cash amounts and reported as a single amount on the balance sheet.

The petty cash fund is also reimbursed at the end of an accounting period, even if the amount of cash in the fund is not running low, in order to have the expenses represented by the vouchers in the fund plus the GST received recorded during the current accounting period. If the fund is not reimbursed, cash will be overstated in the balance sheet and expenses will be understated in the income statement for the period.

On occasion, the petty cashier may forget to obtain a signed voucher for a payment from the fund, in which case the fund will be short. When this occurs, the Cash Short and Over account is debited for the shortage when the fund is replenished.

If special journals are being used, the above entry for reimbursement of the petty cash fund is entered in the cash payments journal. Reimbursement is done by drawing a cheque for the total amount of the petty cash vouchers used (i.e. cash spent) during the period, and this cheque has to be recorded in the cash payments journal along with all other cheques written. When the reimbursement is recorded in a payments journal, the entry is as shown below (selected columns only):

Cash Payments Journal

					Debits		Credits	
Date	Account Debited	Chq. No.	Post Ref.	Accounts Payable	GST Receivable	Other	Cash at Bank	Discount Received
Jan. 3	Stationery Exp.		530		1.52	15.22		
	Office Supplies Exp.		515		1.23	12.30		
	Postage Exp.	140	572		5.65	56.47	92.39	

Note that the effect on the general ledger accounts is exactly the same as that for the general journal — the appropriate expense accounts are debited, GST Receivable is debited for the total of $8.40, and the Cash at Bank account is credited.

The system of operating petty cash just described is known as the **imprest system**. The essential features of the imprest system are:

- the determination of a fixed sum, which becomes the imprest amount
- at all times cash remaining in the fund together with the total of the vouchers for cash spent will equal the imprest amount
- reimbursement is always for the amount spent (as evidenced by the vouchers) to bring the balance remaining up to the imprest amount.

Sometimes the petty cashier keeps a record of cash received and expended in a petty cash book. In this book all money received into the fund and all payments made from the fund are recorded. The source documents for the book are the cheques received to establish or vary the imprest amount of the fund and to reimburse the fund, and the vouchers that are the authorisations for expenditure from the fund. The petty cash book usually has a number of expenditure analysis

columns to enable the expenditure to be analysed into the various accounts that will be debited. A petty cash book incorporating the entries referred to in the simple illustration above is similar to the example shown below:

Petty Cash Book

Date	Particulars	Vchr No.	Receipts	Payments	Postage Expense	Office Supp. Exp.	Stationery Expense	GST Receivable
Jan. 2	Cheque 100		100.00					
10	Stamps	1		33.00	30.00			3.00
15	Office supplies	2		13.53		12.30		1.23
20	Postage	3		29.12	26.47			2.65
25	Stationery	4		16.74			15.22	1.52
				92.39	$56.47	$12.30	$15.22	$8.40
31	Balance c/d			7.61				
			$100.00	$100.00				
31	Balance b/d		7.61					
	Reimbursement cheque 140		92.39					

As we saw above, the use of a bank account and an imprest system of petty cash provides a strong basis for internal control over cash payments. These controls incorporate many of the concepts of internal control we discussed earlier in the chapter.

LEARNING CHECK

☐ A petty cash fund is established for making payments for minor expenses.

☐ In the imprest system of petty cash, a fixed sum of money is the starting point. Petty cash vouchers issued for all payments indicate the amount of money taken from the fund and the purpose of the payment.

☐ The cash remaining in the fund plus the total of petty cash vouchers for cash spent should always equal the imprest amount.

☐ The total of the vouchers is repaid periodically by cheque to reimburse the fund and bring it back to its imprest amount. In this process, expense and other accounts are debited and the Cash at Bank account is credited.

11.5 Cash budgeting

LO 5 **Identify the purpose and control features of a cash budget and prepare a cash budget.**

Need for cash budgeting

The coverage of control over the asset cash was based on establishing controls within the recording process. As noted in the scene setter, an important aspect of control over cash is planning cash inflows and outflows. Any entity must be concerned not only with recording cash flows but also with ensuring that the entity has sufficient cash to be able to make ***future*** payments such as payments of accounts payable to obtain available discounts, wages and salaries of employees and other expenses, and for the purchase of non-current assets.

Although it is essential to provide cash for future use, excessive cash funds lying idle in non- or low-interest-bearing deposits should be avoided. It is essential for management to plan and control future cash flows. This type of control is obtained by the preparation of a cash budget.

A **cash budget** is a projection of expected future cash receipts and cash payments. Only cash items are included and non-cash items such as depreciation are excluded. The preparation of a cash budget ensures that:

- an entity is able to meet its commitments as they fall due
- as a result of paying on time, the reputation and credit standing of the entity is maintained
- all proposed expenditures are carefully assessed and wasteful cash outlays are discouraged

- the use of borrowed funds is kept to a minimum and hence interest and other charges are reduced
- cash funds are not left lying idle and can be put to use, generating income from interest and dividends.

Preparation of a cash budget

Cash budgets are usually prepared on a monthly basis although this varies depending on the needs of the particular entity. The period of time covered by the cash budget varies from 3 to 6 months, although this period can be longer. However, the longer the time period involved, the more difficult it is to predict the future cash flows accurately. The cash budget is a forecast of the probable amounts of cash receipts and payments over a period of time, and the cash balance expected at the end of that period. This budget is, in effect, a forecast of cash flows based on an analysis of past activities and an examination of possible future cash inflows and possible future cash requirements. The illustrative example below shows the preparation of a cash budget.

Illustrative example

The following information relates to the expected cash receipts and payments of City Enterprises, which requires a cash budget prepared for the months of November and December 2016. All income and expenses amounts include GST except for the GST-exempt items of wages and personal drawings.

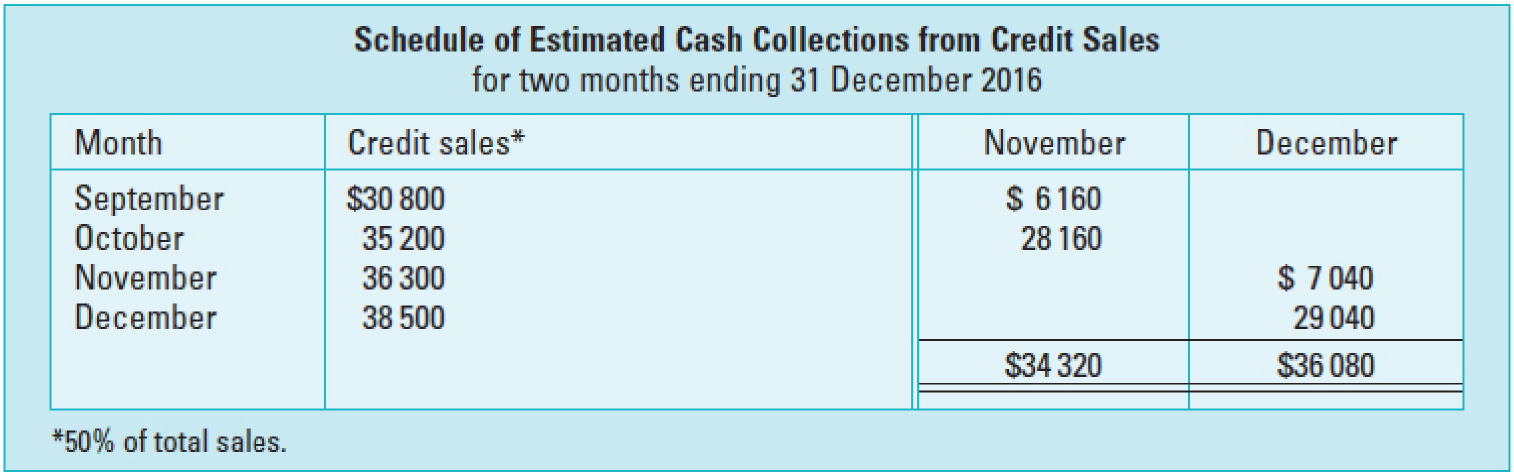
Sales usually consist of 50% cash sales and the credit sales are collected on the following pattern — 80% in the month following the month of sale and the remainder in the second month after the sale. Purchases are all on credit and are paid for in the month following the month of purchase to take advantage of the 2% discount offered. City Enterprises estimates that it will have the following cash commitments during the budget period: wages $16 000 per month; rent payable $4620 (including GST) per month; advertising payable $3300 (including GST) in November (same as October) and $4400 (including GST) in December; and personal drawings by the owner, Terry Duncan, of $900 per month. A new colour printer costing $900 plus GST will be purchased for cash in November. The balance in the entity’s bank account at 1 November was $800. Details of sales and purchases (GST is included in all amounts) relevant to the preparation of the budget are:

	Sales	**Purchases**
September (actual)	$61 600	$35 200
October (actual)	70 400	37 400
November (estimated)	72 600	39 600
December (estimated)	77 000	44 000

The steps in the preparation of the budget are as follows.

1. Prepare a schedule of estimated cash collections from credit sales — these amounts will include the GST component.
2. Prepare a schedule of estimated cash payments for credit purchases — these amounts will include the GST component.
3. Prepare a schedule of estimated GST payables and receivables from sales and purchases of goods and services to determine the estimated cash payments to be made to the Australian Taxation Office (ATO).
4. Prepare the cash budget.

The first step in the preparation of the cash budget is to ascertain the expected cash collections from credit sales. A schedule of estimated cash collections from credit sales is prepared for this purpose, and is set out below

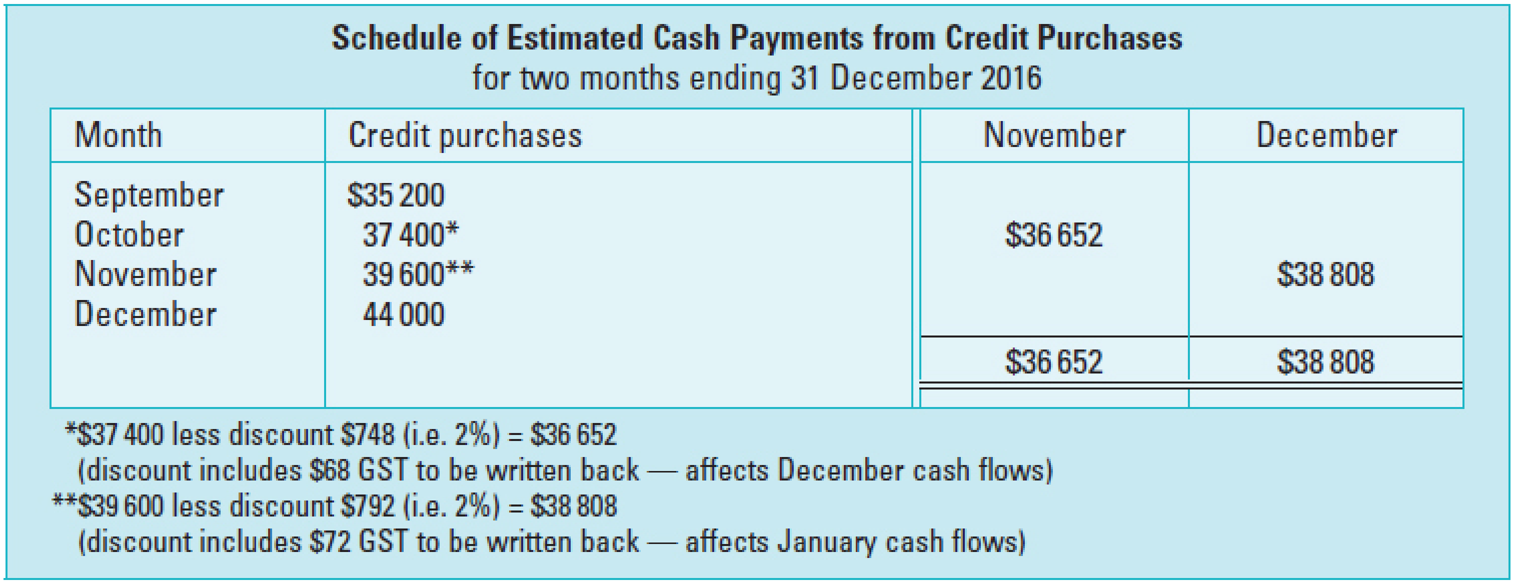


Schedule of Estimated Cash Collections from Credit Sales
for two months ending 31 December 2016

Month	Credit sales*	November	December
September	$30 800	$ 6 160	
October	35 200	28 160	
November	36 300		$ 7 040
December	38 500		29 040
		$34 320	$36 080

*50% of total sales.

Using a similar analysis, the schedule of payments for credit purchases is as follows:



Schedule of Estimated Cash Payments from Credit Purchases
for two months ending 31 December 2016

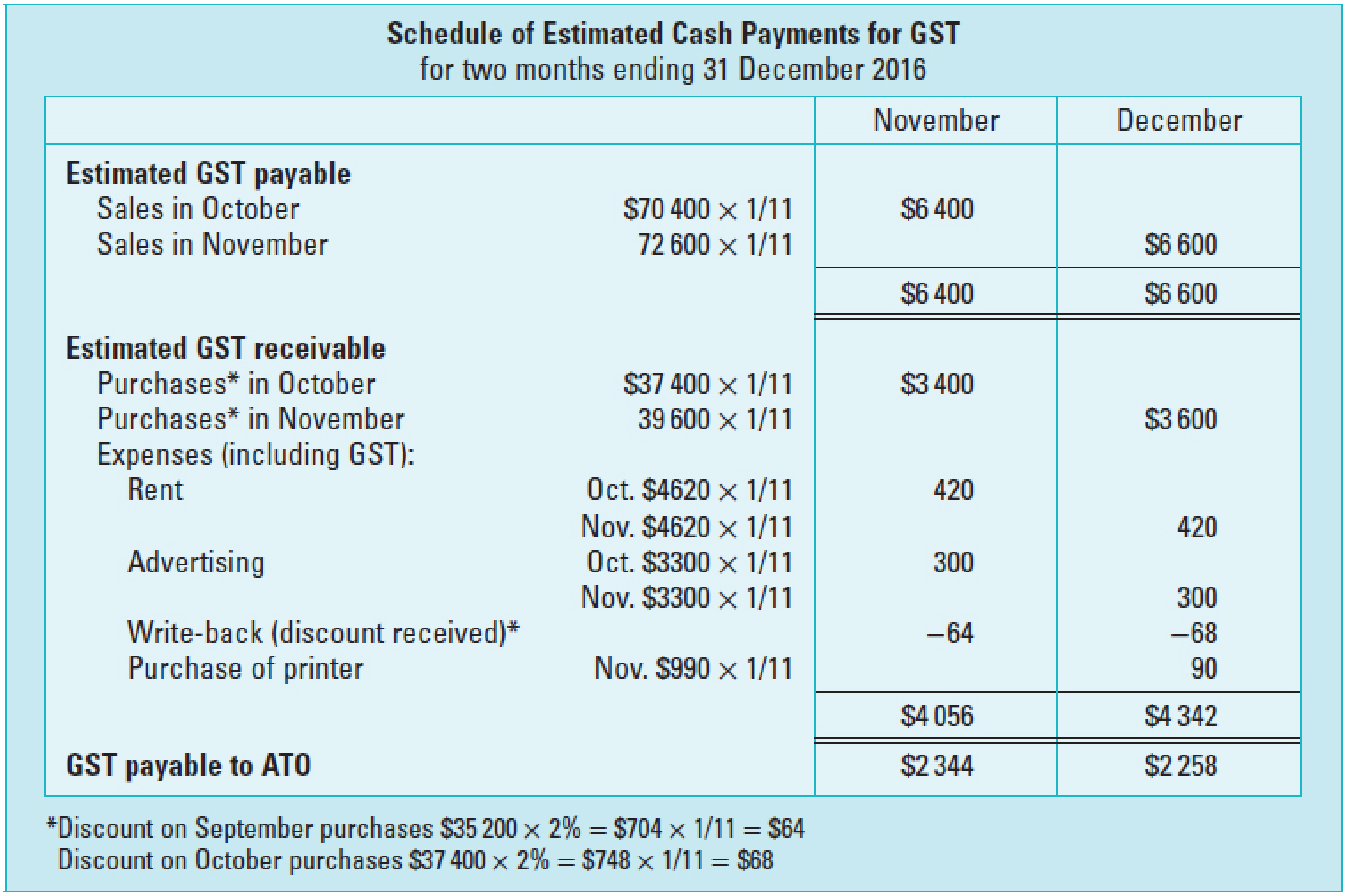
Month	Credit purchases	November	December
September	$35 200		
October	37 400*	$36 652	
November	39 600**		$38 808
December	44 000		
		$36 652	$38 808

*$37 400 less discount $748 (i.e. 2%) = $36 652
(discount includes $68 GST to be written back — affects December cash flows)
**$39 600 less discount $792 (i.e. 2%) = $38 808
(discount includes $72 GST to be written back — affects January cash flows)

Because City Enterprises is registered for the GST, it is required to pay to the ATO the difference between the GST payables recorded using the accrual basis and GST receivables recorded using the accrual basis. For this purpose, it is necessary to prepare an estimate of the amount payable. Assuming that City Enterprises submits its BAS monthly, the amount payable in any month will be based on the recorded payables and receivables for the previous month. Any write-back of GST for discounts received will affect the cash flows to the ATO 2 months after the month of purchase, e.g. GST Receivable recorded on September purchases will affect October cash flows, but any GST in discounts received when the account is paid in October will affect December GST cash flows to the ATO. A schedule setting out estimated GST Payable and GST Receivable, and the resulting estimated amount payable to the ATO, can now be drawn up, as shown below. The cash budget can now be prepared and appears in figure 11.9 (p. 496).

Note that in the preparation of the cash budget the cash at bank balance at the end of one month becomes the opening balance for the next month. The same principles as outlined above are followed if a budget covering 3 or 6 months is prepared.

Note also that if City Enterprises had a policy of maintaining a cash position of $10 000 at the end of each month, it would need to borrow $3386 at the end of November and could afford to pay it back at the end of December.



Schedule of Estimated Cash Payments for GST
for two months ending 31 December 2016

		November	December
Estimated GST payable			
Sales in October	$70 400 × 1/11	$6 400	
Sales in November	72 600 × 1/11		$6 600
		$6 400	$6 600
Estimated GST receivable			
Purchases* in October	$37 400 × 1/11	$3 400	
Purchases* in November	39 600 × 1/11		$3 600
Expenses (including GST):			
Rent	Oct. $4620 × 1/11	420	
	Nov. $4620 × 1/11		420
Advertising	Oct. $3300 × 1/11	300	
	Nov. $3300 × 1/11		300
Write-back (discount received)*		−64	−68
Purchase of printer	Nov. $990 × 1/11		90
		$4 056	$4 342
GST payable to ATO		$2 344	$2 258

*Discount on September purchases $35 200 × 2% = $704 × 1/11 = $64
Discount on October purchases $37 400 × 2% = $748 × 1/11 = $68

Figure 11.9 Cash budget

CITY ENTERPRISES
Cash Budget
for two months ending 31 December 2016

	November	December
Cash at bank, beginning of month	$ 800	$ 6 614
Expected cash collections from sales:		
Cash	36 300	38 500
Credit (from schedule)	34 320	36 080
Total from sales	70 620	74 580
Total cash available	$71 420	$81 194
Estimated cash payments:		
Purchases (from schedule)	$36 652	$38 808
Wages	16 000	16 000
Rent	4 620	4 620
Advertising	3 300	4 400
Purchase of printer	990	
GST payable (from schedule)	2 344	2 258
T. Duncan, drawings	900	900
Total expected payments	$64 806	$66 986
Cash at bank, end of month	$ 6 614	$14 208

Although the cash budget is a key element of control in the cash management of an entity, other factors such as changing economic conditions, credit policy in relation to receivables and inventory turnover rates must be considered. Some of these important factors are covered in this book, and others outside the scope of this book can be found in financial management texts.

LEARNING CHECK

☐ A cash budget is a forecast of future cash inflows and future cash requirements.

☐ Cash budgeting is important to ensure that an entity can meet its cash commitments, maintain its credit standing, minimise dependence on borrowed funds, and generate income from otherwise idle funds.

11.6 Cash management

LO 6 **Explain the essential principles of cash management.**

The development of a good system of internal control over cash receipts and cash payments and the preparation of cash budgets are essential ingredients in effective control over the asset cash. These activities are, however, only a part of any total cash management strategy. Cash management strategies are determined to a large extent by the size and nature of the activities of a business entity. However, there are basic principles that can be followed to ensure adequate management of cash. Most of these principles can be derived from an appreciation of the role of cash flows in the operating cycle discussed in chapter 4.

Referring to figure 4.18 (p. 152), it is apparent that there is a need to collect cash from accounts receivable as quickly as possible, in order to be able to pay accounts payable. It therefore follows that tying up cash in receivables and inventory should be avoided as much as possible. In addition to demands for cash generated by the operating cycle, cash surpluses must be built up to help finance non-current assets, and any cash surplus to requirements should be invested to increase overall cash inflows. The broad principles of good cash management are set out below.

Principles of cash management

Reduce collection time for accounts receivable. Money owed by accounts receivable represents money that cannot be used by the business. The business needs to develop a collections policy to speed up the collection of money owing, i.e. reduce the average collection time for receivables. However, management must ensure that the policy does not put customers off and lead to the loss of their business.

Postpone payments to accounts payable. There are due dates for all payables and payment should be delayed until those due dates. This allows the business to have use of funds that would otherwise be unavailable. This policy should take advantage of any discounts on offer, and ensure that the business's credit rating is not threatened by late payment.

Keep inventory levels to a minimum. Although there is a need to keep adequate levels of inventory to meet the demands of customers, remember that inventories tie up cash and incur costs of storage and insurance. It is therefore sound cash management policy to keep inventory levels to a minimum.

Invest surplus cash. As already noted, cash is in itself a non-productive asset. Good cash management ensures that any cash surplus to immediate requirements is invested in appropriate ways to produce a return in the form of additional cash, or savings in cash outlays. Many forms of investment enable quick return of the cash if the need arises.

Plan for capital expenditures. The acquisition of non-current assets, which can involve large amounts of cash, is an important and ongoing decision all business entities have to make. These decisions require careful long-term planning to ensure that cash surplus to requirements can be used to help finance these large expenditures whenever possible, thus reducing reliance on external financing and its associated costs.

LEARNING CHECK

☐ The broad principles of cash management include reducing average collection time for receivables, paying accounts payable at the last possible (advantageous) moment, keeping inventory levels to a minimum, investing surplus cash and planning for capital expenditure.

11.7 Analysing adequacy of cash flows

LO 7 **Describe and apply measures of cash adequacy.**

The previous discussion considers principles to be followed in managing cash, particularly in relation to the operating cycle. An important requirement for any business, however, is to remain solvent. Decision makers will always be keen to assess an entity's **solvency**, that is, the ability of an entity to pay its debts as and when they fall due. An important component in assessing solvency is the amount of cash generated by the entity's operating activities. The statement of cash flows is a financial statement which provides decision makers with details of cash inflows and outflows, a major component of which is cash flows from operating activities. Cash flows from operating activities can be used to monitor whether cash generated from operations is sufficient to meet both current and non-current liabilities. Two ratios that can be helpful to management in assessing solvency are (1) short-term cash flow adequacy ratio, and (2) cash flow adequacy ratio.

The short-term cash flow adequacy ratio is calculated by relating cash flow from operating activities to current liabilities. This ratio shows the ability of the entity to meet its current liabilities with cash generated from operating activities. The cash flow adequacy ratio relates cash flow from operating activities to total liabilities, thereby indicating the ability of the entity to meet its obligations to all its creditors. Both these ratios are important tests of an entity's solvency. As with all ratios, the trend in these ratios over time provides more information for decision making than the ratio itself.

LEARNING CHECK

☐ An important component in assessing solvency is the amount of cash generated by the entity's operating activities.

☐ The short-term cash flow adequacy ratio relates cash flow from operating activities to current liabilities.

☐ The cash flow adequacy ratio relates cash flow from operating activities to total liabilities.

KEY TERMS

Bank reconciliation statement	p. 484
Bank statement	p. 483
Cash	p. 478
Cash budget	p. 493
Dishonoured cheques	p. 484
Imprest system	p. 492
Petty cash fund	p. 490
Petty cash voucher or receipt	p. 491
Solvency	p. 497
Unpresented cheques or outstanding cheques	p. 486

DISCUSSION QUESTIONS

1. Refer to the scene setter and explain why it is important to manage cash flows. Suggest methods a business can use to manage its cash flows.

2. Many people think of cash as coins and notes. In accounting, cash has a broader meaning. What type of assets are defined as cash in accounting?

3. Internal control of cash is strengthened by requiring that each day's receipts are deposited intact and that all payments are made by cheque or electronic transfer. Do you agree? Why or why not?

4. 'Although the process of bank reconciliation provides a measure of control over cash in a business entity, bank reconciliation is useless unless it operates within a framework that incorporates essential elements of a good internal control system.' Discuss this statement.

5. Mark has done the accounts for his local basketball club for a number of years. You joined the club in the last year and because you have studied some accounting Mark has asked you to help him with the accounts. You note that when doing a bank reconciliation Mark changes the accounts of the basketball club so that they show the same month-end cash balance as the bank statement, even though there are outstanding deposits and cheques. Mark believes this approach is best as the bank must be correct so he needs to agree with its balance. Explain to Mark why the basketball club's cash balance may be different from the bank statement and yet be the correct balance.

6. After reading about the concepts of a good system of internal control over cash covered in this chapter, the owner of a small business was concerned that his internal control was not good. He counted the daily cash takings and prepared the deposit slip, and banked the takings intact each day. He also approved payments and signed all cheques. To overcome his problem, he decided he would have to hire more staff, so that he would be able to ensure adequate division of responsibility. Would this solve his problem? Explain.

7. A manager of a small online business believes that because most of the transactions take place using electronic transfer of funds rather than cash or cheques, the business no longer needs to do a bank reconciliation each month. Explain to the manager why a bank reconciliation is still necessary for the business.

8. 'The principle that receipts should be banked daily and all payments made by cheque or electronic transfer provides a sound basis for internal control over cash. But it breaks down immediately when cash is given to a junior employee to spend through the petty cash fund.' Discuss this statement.

9. A manager of a small business made the following comment when a friend suggested that his business could benefit if he were to prepare cash budgets: 'Some people think they are all right but I run only a small business and don't want to waste my time preparing budgets, which, after all, are just best-guessing the future. I am more interested in what actually happens, not what I think might happen.' Discuss this statement.

10. A sound cash management system has several advantages. Why is it beneficial to reduce collection time for accounts receivable?

EXERCISES

Exercise 11.1 CASH FLOW MANAGEMENT LO 2

Benjamin runs a cheese shop at the local shopping centre. Some months Benjamin seems to have more than enough cash to pay his bills when they are due. Other months Benjamin struggles to pay bills on time as he runs short of cash in the business's bank account and has to use money from his personal account to pay business expenses.

Required

Advise Benjamin on ways he can overcome his cash flow management issues.

Exercise 11.2 COMPOSITION OF CASH LO 1

On 30 June, Sophisticated Coffee had the following on its premises:

1. 18 blank cheque forms
2. a cheque for $275 received from a customer on 28 June but dated 1 July
3. cheques dated 28–30 June for the total amount of $2384 received from customers on 30 June
4. postage stamps to the value of $12.10
5. a $600 IOU from an employee representing a short-term loan
6. currency and coin, $872.

Required

A. What total dollar amount should be included in 'cash' at 30 June?
B. Explain how any items not included in 'cash' should be reported on a balance sheet prepared on 30 June.

Exercise 11.3 CASH INTERNAL CONTROL PROCEDURES LO 2

Explain briefly the significance of each of the following in a comprehensive system of control over cash transactions:

1. the segregation of cashier's duties from other functions
2. the daily banking principle
3. the bank reconciliation statement
4. the imprest system of petty cash
5. cash budgets
6. statements of cash flows.

Exercise 11.4 CASH SHORT AND OVER LO 2

Lee runs a fruit stall at the local market and at the end of each day he banks the cash in the cash register. The cash register records each sale and can provide a total for each day but Lee believes that often the staff are too busy and do not always enter the sales in the register but simply put the cash in the till. The total from the cash register is produced each month for the business's accountant to prepare financial statements. Recently, Lee employed a university student to work on weekends and he is concerned that soon after this the daily amount banked seems to have decreased even though Lee feels that sales have not really changed. The student often talks about how he spends his evenings at the casino in the hope of winning enough to pay for his university studies so that he doesn't have to work every weekend.

Required

A. Explain to Lee what controls he could put in place to minimise the risk of one of his employees stealing cash.

B. After Lee put in place the controls that you suggested, he found that for the first week the cash register showed sales of $7150, including GST, and the amount banked was $6800. Record the cash short or over.

C. The second week after the new controls were implemented the student resigned and the cash register showed sales of $6930, including GST, and the amount banked was $7200. Record the cash short or over.

Exercise 11.5 CASH INTERNAL CONTROL PROCEDURES LO 2

Julia Ross Company has the following internal control procedures over cash payments. Identify the internal control principle that is applicable to each procedure.

1. Company cheques are prenumbered.
2. The bank statement is reconciled monthly by an internal auditor.
3. Blank cheques are stored in a safe in the finance manager's office.
4. Only the finance manager or assistant may sign cheques.
5. Cheque signers are not allowed to record cash payment transactions.

Required

Identify the internal control principle that is applicable to each procedure.

Exercise 11.6 BANK RECONCILIATION LO 3

Lisa Ceja is unable to reconcile the bank balance at 31 January. Lisa's reconciliation is as follows.

Cash balance per bank	$3 660.20
Add: NSF cheque	590.00
Less: Bank service charge	25.00
Adjusted balance per bank	$4 225.20
Cash balance per books	$3 875.20
Less: Deposits in transit	530.00
Add: Outstanding cheques	930.00
Adjusted balance per books	$4 275.20

Required

A. Prepare a corrected bank reconciliation.

B. Journalise the entries required by the reconciliation.

Exercise 11.7 BANK RECONCILIATION LO 3

Sandy Poglase, owner of Sandy's Sandwiches, wants a bank reconciliation statement to be prepared for the month ended 31 March 2016 using the following information:

1. Final balance in the Cash at Bank account in the ledger of Sandy's Sandwiches (after all entries arising from the bank statement had been entered) was $13 204.26 Dr.
2. Balance shown by the bank statement at 31 March was $13 155.10 Cr.
3. Cheques recorded in the cash payments journal but not presented to the bank for payment were:

Cheque no.	41	$339.50
	43	262.64
	46	423.90
	51	195.10

4. A deposit of $1270.30 appears as a deposit in the cash receipts journal but had not been recorded by the bank at the date of the statement.

Required

Prepare the bank reconciliation statement at 31 March 2016.

Exercise 11.8 BANK RECONCILIATION **LO 3**

The following information relates to the cash position of Cathy Fraser, loan broker.

1. Cash at Bank account balance as at 30 June 2016: $45 451 debit.
2. Bank statement balance as at 30 June 2016: $47 512 credit.
3. 30 June receipts amounting to $1820 have not been deposited.
4. Cheques issued but not presented total $3468.
5. A $312 cheque was returned marked ‘dishonoured’. The cheque had been received from J. Simms, a new customer.
6. A $750 deposit made by L. Richards was incorrectly credited to the bank account of Cathy Fraser.
7. The bank statement shows that the bank has charged the business’s account with fees and charges of $25.
8. Items 4, 5 and 6 have not yet been entered in the cash journals.

Required

Prepare a bank reconciliation at 30 June 2016, assuming that items 4, 5 and 6 are already recorded in the cash journals.

Exercise 11.9 BANK RECONCILIATION — BANK ACCOUNT OVERDRAWN **LO 3**

Cathy’s Consulting collected its latest bank statement on 1 July 2016. All entries appearing in the bank statement that had not been entered into the cash journals were entered therein. The cash journals were posted and the resulting balance of the Cash at Bank account in the ledger at 30 June was $30 273 Cr. The balance shown on the bank statement at 30 June was $34 033.24 Dr.

The following items recorded in the cash journals did not appear in the bank statement.

1. A deposit made on 30 June of $5254.24.
2. Cheques written during June that had not been presented for payment were:

Cheque no.	841	$650.6
	845	$424.9
	846	$454.5

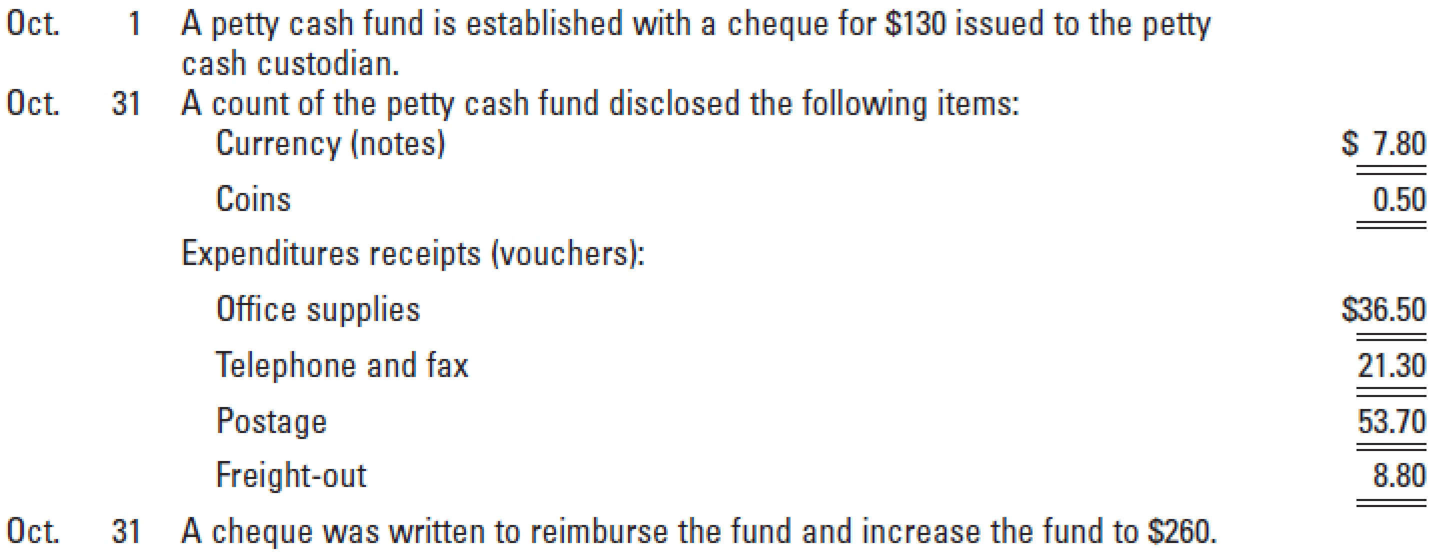
A cheque written for $48 appeared incorrectly in the bank statement as $84.

Required

Prepare the bank reconciliation statement at 30 June 2016.

Exercise 11.10 PETTY CASH FUND TRANSACTIONS **LO 4**

During October, Hair Styles Pty Ltd experiences the following transactions in establishing a petty cash fund.



Oct.	1	A petty cash fund is established with a cheque for $130 issued to the petty cash custodian.	
Oct.	31	A count of the petty cash fund disclosed the following items:	
		Currency (notes)	$ 7.80
		Coins	0.50
		Expenditures receipts (vouchers):	
		Office supplies	$36.50
		Telephone and fax	21.30
		Postage	53.70
		Freight-out	8.80
Oct.	31	A cheque was written to reimburse the fund and increase the fund to $260.	

Required

Journalise the entries in October that pertain to the petty cash fund.

Exercise 11.11 BUDGETED CASH RECEIPTS FROM SALES, EXCLUDING GST LO 5

Hannah's Handbags Pty Ltd is preparing a budget for the quarter ended 30 June 2016. Hannah estimates that approximately 70% of the handbag sales will be for cash and the rest will be on credit. Of the credit sales, 20% of the money will be received in the month of sale, 40% will be received the following month and 38% will be received 2 months after sale. Approximately 2% of credit sales are never collected and are written off.

The actual sales for the previous quarter ended 31 March 2016 were as follows:

January	$33 620
February	34 770
march	40 180

The budgeted sales for the June quarter are as follows:

April	$42 640
May	43 950
June	45 920

Required

Calculate budgeted cash receipts for the quarter ended 30 June 2016.

Exercise 11.12 BUDGETED CASH RECEIPTS FROM SALES, INCLUDING GST LO 5

Kay's Hardware Ltd's budgeted monthly sales for January to June 2016 are given below. About 70% of the monthly sales are expected to be on credit. Approximately 60% of the credit sales are collected in the month of sale, 30% in the month following the sale, and 5% in the second month following the sale; 5% are never collected and are written off.

The budgeted gross sales including GST of 10% by month are:

January	$115 000
February	162 000
march	139 000
April	125 000

May	150 000
June	130 000

Required

Prepare a schedule of expected cash receipts from sales for April, May and June 2016.

Exercise 11.13 BUDGETED CASH PAYMENTS FOR PURCHASES **LO 5**

The accountant for Schulz Ltd compiled the following figures in order to estimate budgeted cash payments for March and April 2016:

Purchases for December		$156 000
Purchases for January		149 000
Purchases for February		158 700
Ending inventory — 28 February		131 400
Budget sales:	March	248 400
	April	223 000
	May	265 000
	June	240 000

Schulz Ltd uses the following assumptions when preparing budgets. The cost of sales is 60% of sales. The company pays for 60% of its purchases in the month after purchase, 30% in the second month following the purchase and 10% in the third month following the purchase. No discounts are received. It is business policy to maintain a month-end inventory balance sufficient to meet the projected sales requirement for the following month.

Required

A. Calculate the budgeted purchases for March and April 2016. Ignore GST.
B. Prepare a schedule of expected cash payments for purchases for March and April 2016.

Exercise 11.14 PRINCIPLES OF CASH MANAGEMENT **LO 6**

Bill has been running his local homewares store for 4 decades and has built up a large following of loyal customers. Bill believes that the key to developing a loyal customer base is to be generous in giving credit, to let customers pay when they have the money, and have plenty of stock so that customers don't have to wait for him to order in what they want. Bill also prides himself in minimising his debts by paying his accounts as soon as he receives them — to do this he likes to keep at least $30 000 in his store's cheque account. While you are studying at university, you work part-time for Bill and are aware of his approach to customers and bill paying. Bill has expressed his concern that he does not think he will have enough saved for when he retires in a few years.

Required

Explain to Bill how the principles of cash management can help him increase his savings so that he has more funds set aside for his retirement.

Exercise 11.15 ANALYSING ADEQUACY OF CASH FLOWS **LO 7**

Overton Pty Ltd is a private company that runs a coffee shop. Its owner, Carl, is concerned that the cash flows for the past year have deteriorated and has provided the following abridged versions of Overton Pty Ltd's balance sheet and statement of cash flows.

OVERTON PTY LTD
Balance Sheet
as at 30 June

	2017	2016
Current assets	$ 620 000	$ 640 000
Non-current assets	3 760 000	3 780 000
Total assets	4 380 000	4 420 000
Current liabilities	380 000	320 000
Non-current liabilities	3 120 000	3 160 000
Total liabilities	3 500 000	3 480 000
Net assets	$880 000	$940 000
Equity	$880 000	$940 000

OVERTON PTY LTD
Statement of Cash Flows
for the years ended 30 June

	2017	2016
Cash flows from operations	$ 220 000	$ 360 000
Cash flows from investing	(60 000)	(40 000)
Cash flows from financing	(40 000)	(50 000)
Net increase in cash	120 000	270 000
Beginning cash	320 000	50 000
Ending cash	440 000	320 000

Required

Calculate the short-term cash flow adequacy ratio and the cash flow adequacy ratio for 2016 and 2017 and comment on Overton Pty Ltd's ability to meet its current and overall obligations to creditors.

PROBLEMS

Basic
Moderate
Challenging

Problem 11.1 CASH RECEIPTS **LO 2**

During the week ended 12 September 2016 the daily sales for Calum's Chocolaterie were as follows:

	Total sales (including GST)	Sales on account	Banked
September 2016			
Monday 8	$3 696	$176	$2 948
Tuesday 9	3 036	110	2 886
Wednesday 10	3 388	132	3 266
Thursday 11	3 784	154	3 630
Friday 12	3 696	110	3 526

Required

Record the transactions for the week ended 12 September in the cash receipts journal of Calum's Chocolaterie, set out as below, and prepare a general journal entry for cash short and over if necessary.

CALUM'S CHOCOLATERIE
Cash Receipts Journal

Date	Account	Debits		Credits		
		Cash at Bank	Discount Allowed	Sales	Accounts Receivable	GST Payable
Sept. 8						

Problem 11.2 CASH RECEIPTS

LO 2

The daily sales for Sunny Fruit & Vegetable Shop during the week ended 5 April 2016 were as follows:

	Total sales (including GST)	Sales on account	Banked
April 2016			
Monday 1	$4 912	$ 842	$4 104
Tuesday 2	5 044	886	4 156
Wednesday 3	5 286	930	4 356
Thursday 4	5 568	992	4 350
Friday 5	6 070	1 054	5 084

Required

Record the transactions for the week ended 5 April 2016 in the cash receipts journal of Sunny Fruit & Vegetable Shop, set out as below, and prepare a general journal entry for cash short and over if necessary.

SUNNY FRUIT & VEGETABLE SHOP
Cash Receipts Journal

Date	Account	Debits		Credits		
		Cash at Bank	Discount Allowed	Sales	Accounts Receivable	GST Payable
Apr. 1						

Problem 11.3 OUTSTANDING DEPOSITS AND UNPRESENTED CHEQUES

LO 3

The following information has been extracted from the cash records of Wheeler Ltd and shows four independent situations. Assume there were no direct bank debits or credits on the bank statement and that all outstanding deposits and unpresented cheques in one month appeared on the bank statement in the following month.

1. The total of outstanding deposits on the 30 April bank reconciliation statement was $1875. During May, the company made deposits of $40 200 to its bank account but the bank statement showed that only $39 840 was deposited during the month.
2. The total of unpresented cheques on the 30 April bank reconciliation statement was $1440. During May, the total of cheques issued was $29 175 but the bank statement showed that only $27 720 in cheques were presented during the month.

3. During July, deposits recorded on the bank statement totalled $46 200, but deposits according to the company's records were $43 950 and outstanding deposits at 31 July were $4125.
4. In July, cash payments according to Wheeler Ltd's records were $40 800, cheques presented and shown on the bank statement were $43 000 and unpresented cheques at 31 July were $3960.

Required

A. In situation 1, what were the outstanding deposits at 31 May?
B. In situation 2, what were the unpresented cheques at 31 May?
C. In situation 3, what were the outstanding deposits at 30 June?
D. In situation 4, what were the unpresented cheques at 30 June?

Problem 11.4 BANK RECONCILIATION LO 3

Information about the cash position for Cavanagh's Charter Tours Pty Ltd for the month of June is presented below.

1. The general ledger Cash at Bank account had a balance of $12 600 on 31 May.
2. The cash receipts journal showed total cash receipts of $45 796 for June.
3. The cash payments journal showed total cash payments of $49 152 for June.
4. The June bank statement reported a bank balance of $8066 on 30 June.
5. Outstanding cheques at the end of June were: no. 864, $120; no. 866, $146; and no. 870, $224.
6. Cash receipts of $2400 for 30 June were placed in the bank's night safe on 30 June and were not included in the June bank statement.
7. Comparison of the presented cheques with the entries in the cash payments journal disclosed that cheque no. 842 for $708, for rent expense, had been wrongly recorded as $690.
8. Included on the bank statement were:
   (a) a total credit for $1468, indicating an electronic transfer of $1360 plus interest earned, which the bank had credited to the account
   (b) a dishonoured cheque written by Vinko Ltd, a client, for $654
   (c) account and transaction fees, $64.

Required

A. Set up cash receipts and cash payments journals with the totals shown above, enter the necessary adjustments, and complete the journals for June.
B. Post the journals in requirement A to the Cash at Bank account and balance the account.
C. Prepare a bank reconciliation statement as at 30 June.
D. What is the amount of cash that should be reported on the 30 June balance sheet?

Problem 11.5 BANK RECONCILIATION LO 3

Information about Bond Ltd's cash position for the month of December is presented below:

1. The general ledger Cash at Bank account had a balance of $21 200 on 30 November.
2. The cash receipts journal showed total cash receipts of $292 704 for December.
3. The cash payments journal showed total cash payments of $265 092 for December.
4. The December bank statement reported a bank balance of $41 184 on 31 December.
5. Outstanding cheques at the end of December were: no. 3456, $1448; no. 3457, $84; no. 3460, $70 and no. 3462, $410.
6. Cash receipts of $10 090 for 31 December were placed in the bank's night safe on 31 December and were not included in the December bank statement.
7. Comparison of the presented cheques with the entries in the cash payments journal disclosed that cheque no. 3442 for $846, for purchases expense, had been wrongly recorded as $864.
8. Included on the bank statement were:
   (a) a dishonoured cheque written by James Ltd, a client, for $136
   (b) a credit for an electronic transfer from a customer of $644 and a credit for interest earned of $44
   (C) account and transaction fees, $120.

Required

A. Set up cash receipts and cash payments journals with totals shown above, and enter the necessary adjustments, and complete the journals for December.

B. Post the journals in requirement A to the Cash at Bank account and balance the account.
C. Prepare a bank reconciliation statement at 31 December.
D. What is the amount of cash that should be reported on the 31 December balance sheet?

Problem 11.6 BANK RECONCILIATION **LO 3**

The following information was available from records and the bank statement of Baldacchino Services Ltd, on 31 May.

The date and the amount of each deposit as recorded during May were as follows:

Date	Amount	Date	Amount
May 2	$1357.00	May 18	$1111.50
5	1647.40	23	1487.16
8	1897.96	25	1516.20
11	1257.36	28	1636.60
14	1341.20	31	1285.80

The number and amount of each cheque written during the month were recorded in the cash payments journal as follows:

Cheque no.	Amount	Cheque no.	Amount	Cheque no.	Amount
329	$ 966.66	335	$1546.80	341	$ 277.40
330	1163.80	336	801.30	342	402.80
331	1270.26	337	996.90	343	330.00
332	2015.00	338	960.20	344	1000.20
333	1017.50	339	1297.60	345	348.00
334	165.00	340	241.20		

The bank statement obtained on 31 May is as shown below:

Bank Statement

April 30 Balance $17 554.10

Date			Debits		Credits
May	1	328	242.00		1 437.60
		320	938.16		
	2	329	966.66		
		330	1 163.80		1 357.00
	5	331	1 270.26		1 647.40
	6	334	165.00		
	7	333	1 017.50		
	8	332	2 015.00		1 897.96
	11	339	1 297.60		1 257.36
	14	335	1 546.80		1 341.20
	18	336	810.30		1 111.50
		337	996.90		
		338	960.20		
	23	340	241.20		1 487.16
		341	277.40		
		343	330.00		
	25				1 516.20
	28				1 636.60
	29	344	1 000.20		
	31		268.00	Dishon. Cheque	
			32.00	Account Fees	1 250.00
Totals			15 538.98		15 939.98

May 31 Balance $17 955.10

On 31 May, the bank debited the account for $268.00 for a customer cheque (deposited in April) returned because of insufficient funds, and for $32.00 for account fees. On 31 May, the bank also credited the account for $1250.00 for the proceeds of a non-interest-bearing note receivable that it had collected on behalf of the company.

Outstanding cheques at the last statement date, 30 April, were: no. 320 for $938.16, no. 328 for $242.00, and no. 326 for $813.00; outstanding deposits were $1437.60.

The accountant discovered that cheque no. 336 (in payment for the purchase of office equipment) was correctly issued for $810.30 but incorrectly recorded in the cash payments journal as $801.30.

The balance in the Cash at Bank account in the company's records on 1 May was $16 998.54.

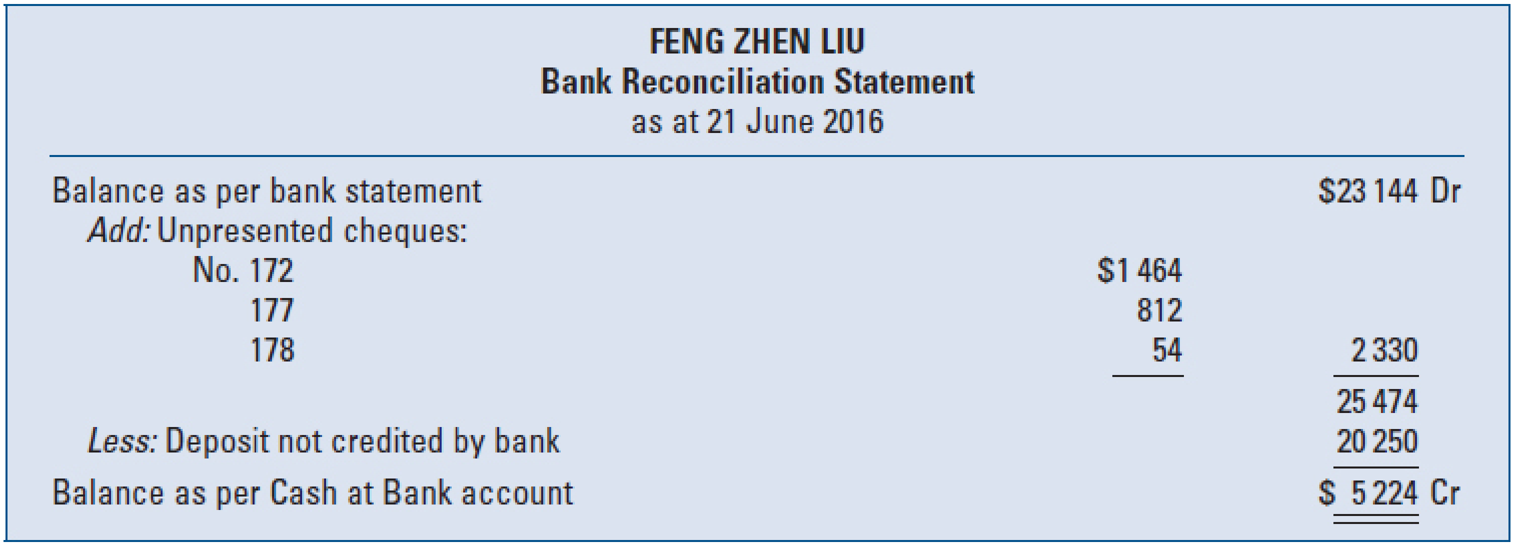
Required

A. Complete the cash journals and post the totals to the Cash at Bank account. Show the Cash at Bank account (T-account form) after it has been balanced on 31 May.

B. Prepare a bank reconciliation statement as at 31 May.

Problem 11.7 BANK RECONCILIATION **LO 3**

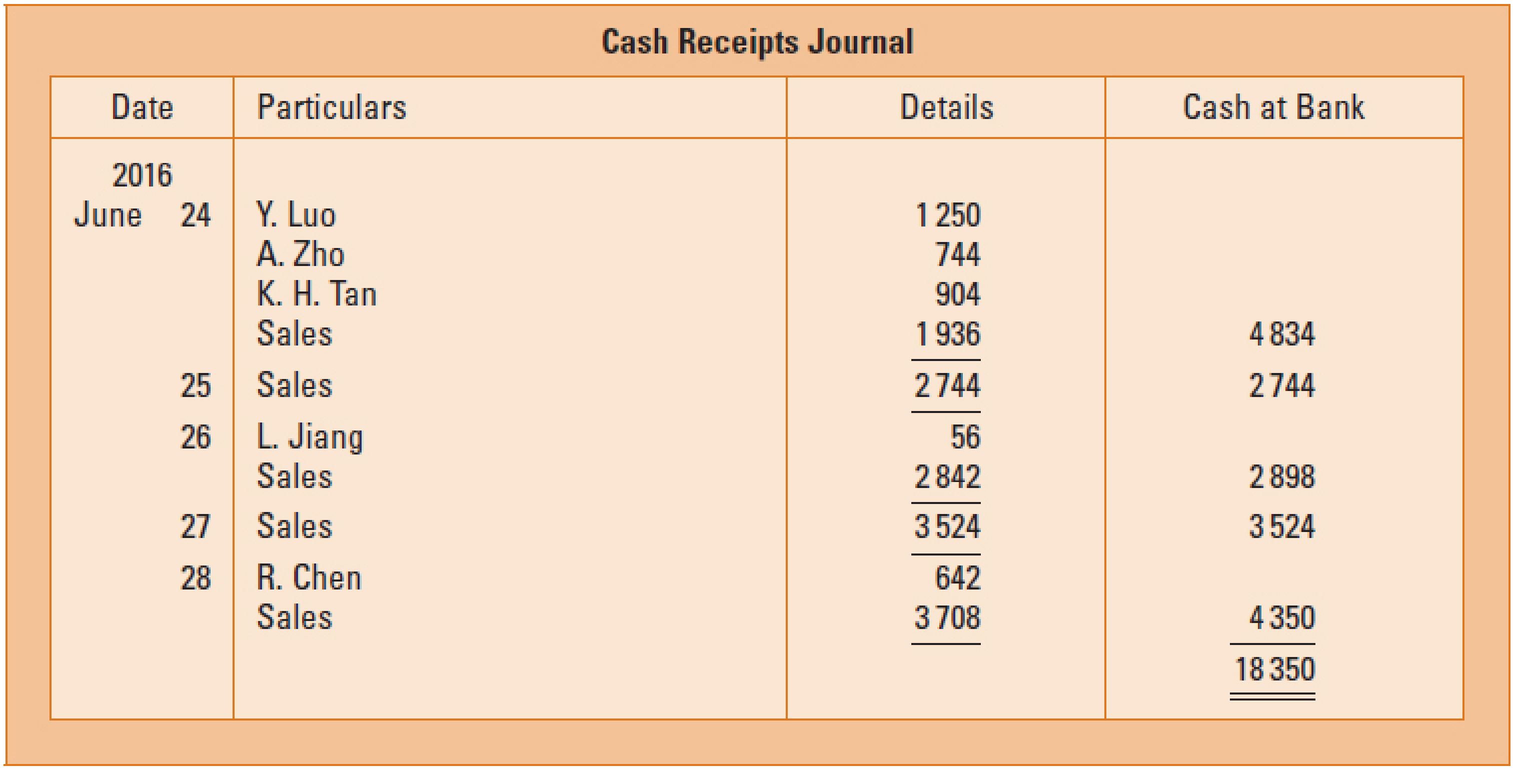
The bank reconciliation statement of Feng Zhen Liu on 21 June 2016 was as shown below.



FENG ZHEN LIU
Bank Reconciliation Statement
as at 21 June 2016

Balance as per bank statement		$23 144 Dr
Add: Unpresented cheques:		
No. 172	$1 464	
177	812	
178	54	2 330
		25 474
Less: Deposit not credited by bank		20 250
Balance as per Cash at Bank account		$ 5 224 Cr

The cash receipts and cash payments journals for the week ending 28 June were as follows:



Cash Receipts Journal

Date	Particulars	Details	Cash at Bank
2016			
June 24	Y. Luo	1 250	
	A. Zho	744	
	K. H. Tan	904	
	Sales	1 936	4 834
25	Sales	2 744	2 744
26	L. Jiang	56	
	Sales	2 842	2 898
27	Sales	3 524	3 524
28	R. Chen	642	
	Sales	3 708	4 350
			18 350

Cash Payments Journal

Date	Particulars	Cheque no.	Cash at Bank
2016			
June 24	Y. Du	179	482
	Sundry expenses	180	178
25	J. Liang	181	644
	Wages	182	2 440
26	Rent	183	864
	M. Choi	184	752
27	D. Tsu	185	1 650
	Insurance	186	914
28	Purchases	187	656
	N. Ma	188	4 032
			12 612

Feng Zhen Liu's bank statement at 28 June is shown below.

Bank Statement

Date	Particulars	Debits	Credits	Balance
2016				
June 24	Balance			$23 144 Dr
			$20 250	2 894 Dr
			4 834	1 940 Cr
	177	$812		1 128 Cr
	Account fees	120		1 008 Cr
	180	178		830 Cr
25	172	1 464		634 Dr
			2 744	2 110 Cr
	179	482		1 628 Cr
	182	2 440		812 Dr
	Returned cheque (H. Tsui)	860		1 672 Dr
26			2 898	1 226 Cr
	184	752		474 Cr
	Interest on bonds		840	1 314 Cr
27			3 524	4 838 Cr
	181	644		4 194 Cr
	Payment Auth. (to B. Chang)	1 896		2 298 Cr
	Transaction fees	24		2 274 Cr
28	187	656		1 618 Cr
	Account Fees	120		1 498 Cr
	Interest on O/D	844		654 Cr

TOTAL DEBITS $11 292

TOTAL CREDITS $35 090

Required

A. Complete, where necessary, the cash journals starting with the totals shown.

B. Open a Cash at Bank account with the correct balance on 21 June 2016 and post the totals of the cash journals. Balance the account at 28 June 2016.
C. Prepare a statement reconciling the Cash at Bank balance to the balance as shown by the bank statement as at 28 June 2016.

Problem 11.8 BANK RECONCILIATION **LO 3**

The March 2016 bank statement of Tong's Toyworld has just been received from its bankers. The following information is available:

1. The March bank column totals of the cash receipts and cash payments journals are, respectively, $21 546 and $24 108 before taking into account any of the items appearing on the bank statement.

2. The following items appear on the March bank statement but not in the cash journals for the same month.
   A deposit on 1 March 2016 of $2100.
   Cheque no. 253 for $248.20 and no. 257 for $417.40.
   A debit of $300 to correct an error.
   A dishonoured cheque (received from K. Matthews) for $294.
   A deposit of $400 by owner Penelope Tong to her personal bank account held at the same bank.
   Rent of $420 from a tenant who sublets space was deposited directly.
   A standing transfer order of $350 for insurance premiums.
   Interest on overdraft $48, account fees $30.
3. The following items appear in the cash journals but not on the bank statement:
   Cheque no. 284 was stopped for payment because the amount written on the cheque was wrong. The cheque was given to NW Minerals Ltd for goods, $1500.
   Cheque no. 288 for $632 and no. 293 for $342.
   A deposit on 31 March for $1720.
   A post-dated cheque no. 289 for $1000 given to Simpson Pty Ltd.
4. Additional information:
   On 31 March 2016 the bank statement showed a debit balance of $2342.80.
   Cheque no. 193 for $60 was drawn on 17 December 2014 as a donation to the Scouts Association (cheque is now a stale cheque).
   Cheque no. 285 for $228 appears twice on the bank statement.
   Cheque no. 296 was entered correctly as $360 in the cash journal but appeared in the bank statement as $560.
5. Bank reconciliation statement on 28 February 2016:

Balance as per bank statement		$ 839.20 Dr
Add: Cheques not debited by bank:		
No. 193	$ 60.00	
253	248.20	
257	417.40	
261	719.20	
Bank error — deposit to incorrect account	300.00	1744.80
		2584.00
Less: Outstanding deposit		2100.00
Balance as per Cash at Bank account		$ 484.00 Cr

Required

A. Prepare and balance the Cash at Bank account in the general ledger for March 2016.
B. Prepare the bank reconciliation statement at 31 March 2016.
C. What conclusions can be drawn regarding control over cash payments after preparation of the reconciliation statement?

Problem 11.9 BANK RECONCILIATION **LO 5**

As accountant for J. Stojanovic & Son, you are required to perform a bank reconciliation at the end of June 2016. The bank reconciliation statement for the previous month is set out below:

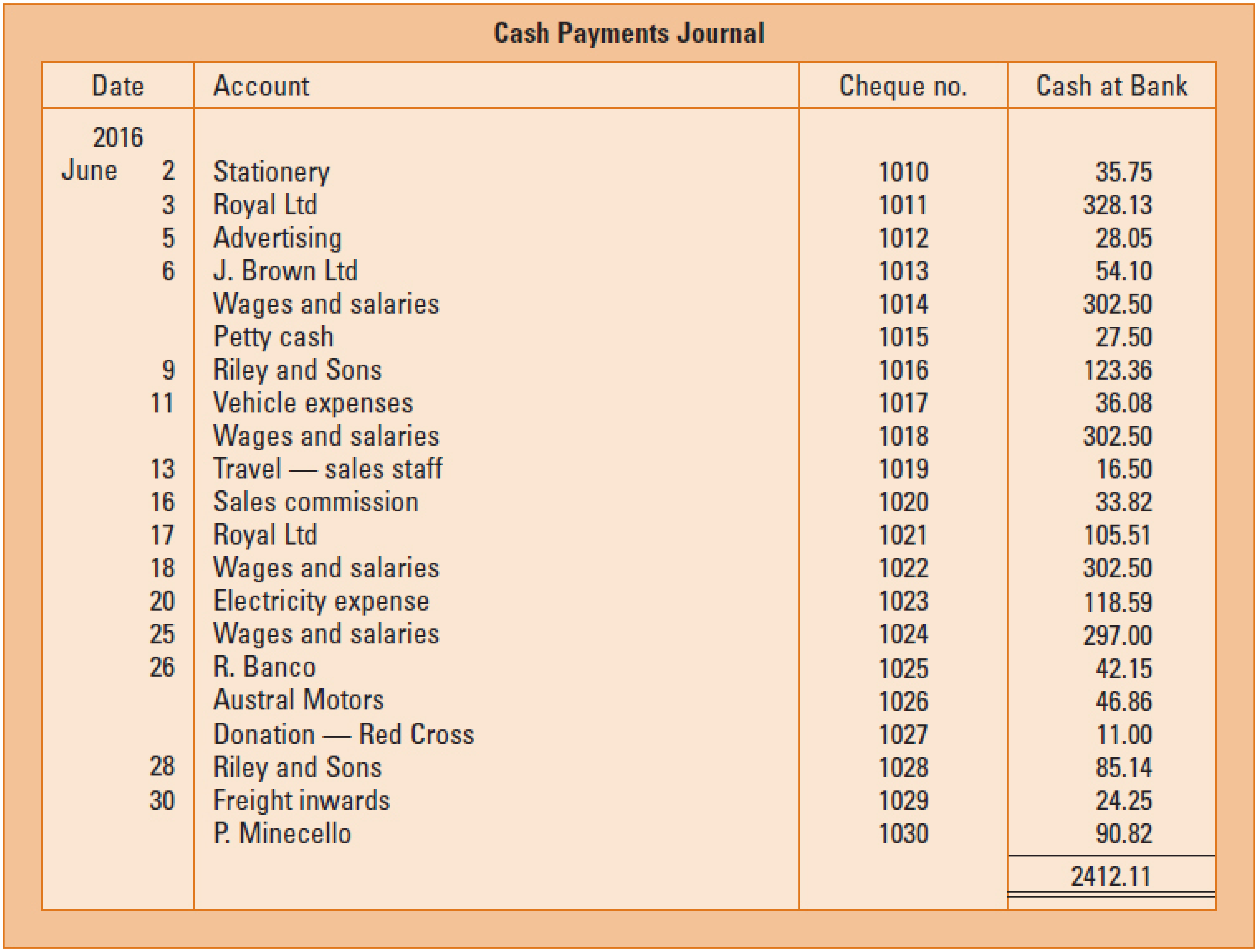
Bank Reconciliation Statement
as at 31 May 2016

Balance as per bank statement	$343.64 Cr
Add: Outstanding deposit	131.45
	475.09
Less: Unpresented cheque no. 1008	61.60
Balance as per Cash at Bank account	$413.49 Dr

Abridged cash receipts and cash payments journals before finalisation and posting are:

Cash Receipts Journal

Date	Account	Details	Cash at Bank
2016			
June 2	R. Wike	121.66	121.66
5	Sales	270.36	
	Langer Ltd	66.00	336.36
9	C. Nunn	341.55	341.55
12	Sales	149.82	
	J. Byron	93.55	
	S. Banks	187.78	431.15
16	Sales	122.26	122.26
22	R. Ricketts	27.50	
	Cowra Cannery Ltd	308.00	335.50
27	Sales	84.89	
	R. Wike	154.00	
	Langer Ltd	53.40	292.29
28	R. Ricketts — dishon. cheque	(27.50)	(27.50)
29	Sales	224.83	224.83
30	Sales	241.34	241.34
			2419.44



Cash Payments Journal

Date		Account	Cheque no.	Cash at Bank
2016				
June	2	Stationery	1010	35.75
	3	Royal Ltd	1011	328.13
	5	Advertising	1012	28.05
	6	J. Brown Ltd	1013	54.10
		Wages and salaries	1014	302.50
		Petty cash	1015	27.50
	9	Riley and Sons	1016	123.36
	11	Vehicle expenses	1017	36.08
		Wages and salaries	1018	302.50
	13	Travel — sales staff	1019	16.50
	16	Sales commission	1020	33.82
	17	Royal Ltd	1021	105.51
	18	Wages and salaries	1022	302.50
	20	Electricity expense	1023	118.59
	25	Wages and salaries	1024	297.00
	26	R. Banco	1025	42.15
		Austral Motors	1026	46.86
		Donation — Red Cross	1027	11.00
	28	Riley and Sons	1028	85.14
	30	Freight inwards	1029	24.25
		P. Minecello	1030	90.82
				2412.11

The following is a copy of the bank statement for the month of June 2016.

BANK STATEMENT

DATE	PARTICULARS	DEBIT	CREDIT	BALANCE
2016				
June 1	Balance			343.64 Cr
2	1010	35.75		307.89 Cr
			131.45	439.34 Cr
			121.66	561.00 Cr
5	1008	61.60		499.40 Cr
			336.36	835.76 Cr
6	1011	328.13		507.63 Cr
7	1012	28.05		479.58 Cr
	1014	302.50		177.08 Cr
	1015	27.50		149.58 Cr
9	1013	54.10		95.48 Cr
			341.55	437.03 Cr
12	1016	123.36		313.67 Cr
	1018	302.50		11.17 Dr
			431.15	442.32 Cr
15	1019	16.50		425.82 Cr
	1020	33.82		392.00 Cr
16			122.26	514.26 Cr
19	1017	36.08		478.18 Cr
22	1021	105.51		372.67 Cr
			335.50	708.17 Cr
	1022	302.50		405.67 Cr
27			292.29	697.96 Cr
28	1024	302.50		395.46 Cr
	1023	118.59		276.87 Cr
	Returned cheque	27.50		249.37 Cr
30	1025	42.15		207.22 Cr
	Account and transaction fees	22.50		184.72 Cr
	1026	46.86		137.86 Cr
			224.83	362.69 Cr

TOTAL DEBITS	TOTAL CREDITS	**BALANCE**
2318.00	2337.05	362.69 CR

Required

A. Complete the cash journals, amending or adding to them as necessary, and post the cash at bank totals to the Cash at Bank account.
B. Prepare the Cash at Bank account showing the final balance at 30 June 2016.
C. Prepare the bank reconciliation statement as at 30 June 2016.

Problem 11.10 BANK RECONCILIATION

LO 3

As the accountant for Sam & Ben’s Ice Cream you are required to perform a bank reconciliation at the end of June 2016. The bank reconciliation statement for the previous month is set out below:

Bank Reconciliation Statement
as at 31 May 2016

Balance as per bank statement			$5 634.58
Add: Outstanding deposit			432.67
Less: Unpresented cheques:			6 067.25
Cheque no.	4578	$ 67.35	
	4579	134.89	
	4581	287.34	489.58
Balance as per Cash at Bank account			$5 577.67

Abridged cash receipts and cash payments journals before finalisation and posting are:

Cash Receipts Journal

Date		Account	Details	Cash at Bank
2016				
June	1	Sales	599.54	599.54
	2	M. Fraser	56.98	
		Sales	515.90	572.88
	4	P. Bartel	64.00	
		Sales	602.78	666.78
	5	Sales	548.70	548.70
	8	C. Mason	98.00	
		I. Ellis	45.68	
		Sales	555.60	699.28
	9	Sales	525.00	525.00
	12	J. Rasheed	34.65	
		Sales	502.40	537.05
	15	Sales	519.56	519.56
	17	J. Botten	35.40	
		J. Greenhalgh	22.20	
		Sales	440.86	498.46
	19	J. Rasheed — dishon. cheque	(34.65)	
		Sales	498.90	464.25
	22	Sales	548.65	548.65
	26	M. Fraser	34.50	
		Sales	536.00	570.50
	29	Sales	506.80	506.80
	30	Sales	480.65	480.65
				7 738.10

Cash Payments Journal

Date		Account	Cheque no.	Cash at Bank
2016				
June	1	Love Ltd	4582	345.67
	2	Bishop Ltd	4583	189.60
	4	Wages and salaries	4584	880.00
	5	Petty cash	4585	54.65
		D. Elliot	4586	125.60
	8	Taylor & Sons	4587	54.90
	9	PB Petrol Bowsers	4588	95.00
		Accommodation	4589	235.40
	11	G. Warner & Partner	4590	584.30
	12	Electricity Ltd	4591	720.89
	15	Big Gas Corporation	4592	220.54
		Telephone Company	4593	325.90
	17	Advertising	4594	220.00
	18	Wages and salaries	4595	880.00
	19	Donation – Sallies Army	4596	50.00
	22	Freight	4597	80.00
	24	Purchases	4598	2 080.90
	25	PB Petrol Bowsers	4599	56.80
	26	S. Bartel	4600	125.00
	29	Petty cash	4601	42.05
	30	K. Turner	4602	38.70
				7 405.90

The following is a copy of the bank statement for the month of June 2016.

Bank Statement

Date		Particulars	Debit	Credit	Balance
2016					
June	1	Balance			5 634.58 Cr
	2	4579	134.89		5 499.69 Cr
		Deposit		432.67	5 932.36 Cr
		Deposit		599.54	6 531.90 Cr
	3	Deposit		572.88	7 104.78 Cr
	4	4582	345.67		6 759.11 Cr
		4583	189.60		6 569.51 Cr
		4584	880.00		5 689.51 Cr
		Deposit		666.78	6 356.29 Cr
	5	4585	54.65		6 301.64 Cr
		Deposit		548.70	6 850.34 Cr
	6	4581	287.34		6 563.00 Cr
	8	Deposit		699.28	7 262.28 Cr
	9	4588	95.00		7 167.28 Cr
		Deposit		520.00	7 687.28 Cr
	12	4586	125.60		7 561.68 Cr
		4589	235.40		7 326.28 Cr
		Deposit		537.05	7 863.33 Cr
	15	4590	584.30		7 279.03 Cr
		4587	54.90		7 224.13 Cr
		4592	220.54		7 003.59 Cr
		Deposit		519.56	7 523.15 Cr
	17	4593	325.90		7 197.25 Cr
		Deposit		498.46	7 695.71 Cr
	18	4595	880.00		6 815.71 Cr

Bank Statement

Date		Particulars	Debit	Credit	Balance
2016					
June	19	4591	720.89		6 094.82 Cr
		4594	230.00		5 864.82 Cr
		Deposit		498.90	6 363.72 Cr
		Returned cheque	34.65		6 329.07 Cr
	22	4597	80.00		6 249.07 Cr
		Deposit		548.65	6 797.72 Cr
	26	4596	50.00		6 747.72 Cr
		4598	2 080.90		4 666.82 Cr
		Deposit		570.50	5 237.32 Cr
	29	4599	56.80		5 180.52 Cr
		4601	42.05		5 138.47 Cr
	30	Deposit		506.80	5 645.27 Cr
		Account fees	60.00		5 585.27 Cr

TOTAL DEBITS 7 769.08

TOTAL CREDITS 7 719.77

BALANCE 5 585.27 CR

Required

A. Complete the cash journals, amending or adding to them as necessary, and post the cash at bank totals to the Cash at Bank account.
B. Prepare the Cash at Bank account showing the final balance at 30 June 2016.
C. Prepare the bank reconciliation statement as at 30 June 2016.

Problem 11.11 PETTY CASH TRANSACTIONS **LO 4**

The following transactions and events relate to the petty cash fund (imprest amount $200) of Honshu Ltd (all amounts include GST).

1. Paid $27.50 delivery charges on inventory purchased.
2. Paid $44 (part payment) for the repair of computer scanner.
3. Purchased office supplies, $31.90.
4. Paid $20 for postage (GST-free).
5. Paid $16.50 for newspapers.
6. The petty cashier exchanged the vouchers in the petty cash box for a cheque to reimburse the fund and to increase the size of the fund from $200 to $250.
7. Paid Post Express $44 for delivery of urgently needed supplies.
8. Paid $33 for office window cleaning.
9. Reimbursed an employee $17.60 for taxi fares for business-related trip.
10. Paid $12.75 for coffee and supplies for the staffroom.
11. Refunded $29.70 for petrol purchased by driver for business delivery vehicle.
12. Paid $33 for dry-cleaning an office curtain.

Required

Note: GST can be ignored in this question by treating all amounts as excluding GST.

Show the entries in the cash payments journal to:

1. establish the petty cash fund for the amount of $200 (cheque no. 0137)
2. reimburse the fund after transaction (5) and increase its size to $250 with cheque no. 0146 (delivery charges and express delivery payments are to be debited to Freight Inwards; expenses unrelated to motor vehicles, office supplies and postage should be debited to Sundry Expenses).
3. reimburse the fund after transaction (12) (cheque no. 0155).

Problem 11.12 CASH BUDGET LO 5

Brockbank Builders Ltd is preparing a cash budget for May and June of 2016. Past records reveal that 20% of all credit sales are collected during the month of sale, 60% in the month following the sale, 10% in the second month following the sale and 10% in the third month following the sale.

The company pays for 75% of purchases in the month after purchase, and the balance is paid in the month following that.

Selling expenses amount to $6600 per month plus 15% of monthly sales. Administrative expenses are estimated to be $13 200 per month, which includes $4800 of depreciation expense. Finance expenses are $1200 per month. All selling and distribution, administrative, and finance and other expenses (except depreciation) are paid for when incurred.

It is planned to purchase equipment during May 2016 at a cost of $6600. A $9000 loan payable will be repaid during June 2016. The interest due at maturity will be $1650. The company's expected Cash at Bank balance at 1 May 2016 is $13 500.

Estimated sales and purchases data are as follows:

	Sales	**Purchases**
2016		
February	$75 000	$38 500
March	66 000	33 000
April	88 000	55 000
May	60 500	27 500
June	71 500	38 500

Required

Ignoring GST, prepare a cash budget for May and June 2016, by month and in total.

Problem 11.13 BANK RECONCILIATION AND INTERNAL CONTROL LO 3

The owner of Smith Hardware has completed a bank reconciliation and cannot get the bank's records to agree with the cash records of his business. He concludes that internal control has somehow failed and cash is being misappropriated. He asks you to check the records and confirm or otherwise his suspicions. He supplies the reconciliation statement at the end of last month, his cash records, and the most recent bank statement.

Last month's reconciliation statement is presented below.

Bank Reconciliation Statement
as at 31 May 2016

Balance per bank statement 31 May 2016	$4328.90 Cr
Add: Outstanding deposit	1224.50
	5553.40
Less: Unpresented cheques	223.70
Balance per Cash at Bank account at 31 May 2016	$5329.70 Dr

The total of the cash receipts journal for June is $64 776.30 and the total of the cash payments journal is $63 265.60. The current bank statement shows that cheques presented and paid amount to $59 725.10, and total deposits amount to $64 780.60. There are also additional debits on the statement for a dishonoured cheque for $210, and account fees for $20.

An examination of the records reveals that all reconciling items at 31 May 2016 appear in the bank statement for June, unpresented cheques at 30 June total $7154.40, and the 30 June deposit of $1950.40

has not been credited by the bank. Your check of the cash journals reveals that addition errors have been made by the clerks responsible. Receipts should total $65 766.30 and payments should total $63 185.60.

Required

A. Recalculate and present the general ledger Cash at Bank account balance as it should be at 30 June 2016.
B. Prepare the bank reconciliation statement at 30 June 2016.
C. Advise the owner of Smith Hardware whether cash is being misappropriated, assuming that the records maintained by the bank are accurate.

Problem 11.14 CASH BUDGET **LO 5**

Prickly Pear Ltd wishes to prepare a cash budget for the first quarter of 2016. In response to your request for past and projected financial data, you receive the following:

Projected sales (excludes GST):	November 2015	$144 000
	December 2015	$147 000
	January 2016	$198 000
	February 2016	$190 000
	March 2016	$288 000
	April 2016	$216 000
	May 2016	$216 000

Of sales, 70% of sales are on credit, with 65% collected during the month of sale, 30% collected during the month following the sale, and 5% during the second month after the sale; 30% of the projected sales are for cash. Ignore GST. Since all suppliers require substantial lead time, purchases of inventory are made 2 months in advance of sale and are paid for 1 month in advance of sale. The cost of sales is 50% of the selling price. Other regular monthly cash payments (ignoring GST) are:

Salaries and wages	$6 600
Sales commissions (on credit sales only)	10%
General and administrative expenses	$14 850
Insurance	$16 500
Delivery expenses	3% of total sales

A special advertising campaign is planned that will require a cash payment of $16 650 on 1 March. An interim dividend of $13 500 is planned for payment on 16 February.

On 1 January 2016, there was an outstanding bank debt of $90 000 that must be paid off in 5 months by making principal repayments of $18 000 at the end of each month. Interest is payable at the end of each month at 1% per month on the balance outstanding at the beginning of the month. The cash balance on 1 January is estimated to be $112 500.

Required

Prepare the cash budget of Prickly Pear Ltd covering January, February and March 2016.

Problem 11.15 CASH BUDGET **LO 5**

Ken Dunlop of Dunlop's Dishes wishes to prepare a cash budget for the 6 months ending 30 June 2017 so he can arrange for overdraft drawings facilities, if required. The following information is available.

1. The business has consistently marked up its goods so as to realise a gross margin of 40% on sales (excluding GST). Policy is to have sufficient inventory on hand at the end of each month to cover the next 2 months sales. This was the situation at 31 December 2016, when the inventory was $160 500 (cost).

2. All sales are on credit and are subject to GST. Debtors pay their accounts 50% in the month of sale and 50% in the following month.
3. All creditors are paid in the month following purchase.
4. The bank overdraft on 31 December 2016 was $10 800. Purchases in December of goods for resale amounted to $86 400.
5. Estimated quarterly payments of GST to the ATO are to be made in January for $14 000 and in April for $6900.
6. Sales in November and December 2016 were $72 000 and $86 000 respectively. A growth of $14 000 per month (before GST) is expected over the next 6 months. (GST has yet to be added to these amounts.)
7. The estimated payments for expenses are:
   Salaries $10 800 per month (GST-free)
   Administration $3300 per month (includes GST)
   Rent $19 800 (including GST) for the year to 31 December 2016; this is to be paid as a lump sum in January 2017.

8. On 1 January 2017, a new machine costing $90 000 plus GST is to be purchased and paid for. It is expected that this machine will last 10 years and have no resale value. All existing plant was scrapped during December 2016.

Required

A. Prepare a separate cash budget for each of the 6 months, January to June 2017.
B. Prepare the projected income statement for the 6 months ending 30 June 2017.
C. Explain the reasons for the difference between the projected profitability and the projected liquidity for the period.

DECISION ANALYSIS

Improving cash flows for Exquisite Hotels Pty Ltd

Your friend Ninette Nobis was a tourism management student when you were at university together and is now a manager of an upmarket hotel in the Exquisite Hotels chain. Because of the impact of an economic downturn on her customers, Ninette is concerned about the cash flow of the hotel she manages. Ninette needs advice on how to improve the business's cash flow. You begin your research by reading the article below.

Required

Based on the ***Herald Sun*** article, how would you help Ninette decide on ways to improve the cash flow of the hotel?

> Cash is king, especially for busy, growing companies. But many businesses say they have noticed that customers are increasingly paying their bills later and later. And they are not alone.
>
> A recent Dun & Bradstreet study showed that on average Australian businesses are being paid more than three weeks over the standard 30-day payment term, putting a squeeze on cash flow.
>
> Good cash flow management is the solution to the gap between the time you have to pay your suppliers and employees and the time you collect from your customers.
>
> The first step is to prepare cash flow projections for the next year, the next quarter, even the next month. Start by adding cash on hand with cash to be received. What cash will we get in, from who and when?
>
> Then have a line item for everything you must pay out, such as rent, salaries, equipment, and advertising. Now you have an idea of exactly where you stand.
>
> Next, look at how you can improve payment. Offer discounts to customers who pay bills quickly,

issue invoices more promptly and follow up firmly if they're late even by a few days, ask new customers for a deposit when an order is taken, and avoid slow-paying customers.

At the same time, manage your suppliers and payables. Take full advantage of payment terms, using electronic banking to make payments on the last day they are due. Also look at your costs carefully and make cuts where you can.

Finally, anticipate the worst. There might well be a day when you find you are short on cash. Speak to your bank now, when business is good, about a line of credit. You might never need it but your bank will be more receptive when your business is fundamentally sound than if you have to go cap in hand one day.

Also speak to your suppliers. If you have been a good customer they will want to see you stay in business and might give you extended terms of payment.

Source: Heron, S 2006, 'Managing the cash squeeze', ***Herald Sun***, 14 December, p. 90.

CRITICAL THINKING

Internal controls over cash receipts

The Leaning Tower of Metropolis is a tall structure attached to the top of the highest building in the city with a lift in the centre to take paying customers to a viewing platform at the top of the tower. On payment of the appropriate fee for an adult, concession or child customer, the cashier in the ticket booth enters the details into the computer system, which then prints out a cardboard ticket. The ticket includes the price paid and whether the customer is an adult, concession or child.

The customer then takes the ticket to the attendant who stands ouside the lift. The attendant collects the tickets and is supposed to tear them in half and put them in a bin.

At the end of the day, the manager counts the money in the ticket booth and compares this with what has been entered into the computer to produce the tickets. At the end of each month the accountant compares the deposits per the bank statement with the daily takings compiled by the computer system.

Required

A. What are the most important internal control principles and procedures being used by the Leaning Tower of Metropolis to ensure control over cash receipts? Does the Tower have an adequate system of internal control?
B. Is it possible for the ticket seller and lift attendant to misappropriate cash through collusion? If so, how could the system be improved to overcome this possibility?

ETHICS AND GOVERNANCE

Maintaining a cash balance

You are the assistant accountant at Krispies Co. Ltd, a distributor of snack foods. Krispies has a large loan from a bank, and part of the loan agreement stipulates that the company must maintain a Cash at Bank account balance of at least $75 000, reviewed monthly by the bank manager. At 31 March you report to the accountant, Naomi Kidman, that the cash balance is only $50 000.

Naomi is concerned and instructs you to keep the cash receipts records open for one more day. She explains that if Krispies reports this cash balance to the bank, the company will default on the loan agreement and the bank may foreclose on the loan. The company could be forced into liquidation and all employees will lose their jobs. Naomi's friend Brian Sheen is the accountant at Freers Foods, one of Krispies' largest customers. She says she will ring Brian and get him to send through a cheque for $35 000 (in part payment of Freers Foods' account) dated 30 March, which you will receive tomorrow, 1 April.

Naomi instructs you to include this cheque in the cash balance that will place Krispies in the clear with the bank.

Required

A. Who are the stakeholders in this situation?
B. What do you think are the ethical issues involved here?
C. List the courses of action you might take and the consequences of each.

FINANCIAL ANALYSIS

Refer to the 2013 financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. How is ‘cash’ defined in the financial statements?
2. Did the total of cash held by JB Hi-Fi Limited increase or decrease over the period? By how much?
3. Is the balance of cash as shown in the balance sheet at the end of the year different from the figure for cash at end of period as shown in the statement of cash flows? If so, how and why? (***Hint:*** Refer to the notes to the statement of cash flows for the explanation.)
4. Is there any reference in the report to aspects of internal control used by JB Hi-Fi Limited?
5. Does JB Hi-Fi Limited have an internal audit department? If it has, what are the major functions of such a department?

CHAPTER 12

Receivables

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- why and how adjusting entries are made (pp. 132–45)
- how to account for sales transactions (pp. 238–44)
- how to account for inventory purchases and cost of sales (pp. 244–56).

Learning Objectives

After studying this chapter you should be able to:

1 define the different types of receivables (pp. 522–3)
2 define accounts receivable, and discuss how accounting recognises and values them (pp. 523–4)
3 explain the nature of bad and doubtful debts and how to account for them (pp. 524–33)
4 identify the principles involved in the management and control of accounts receivable (pp. 533–8)
5 describe the nature of bills receivable and how to account for them (pp. 538–44).

Australian executive exposes China agribusiness scam

An Australian chief financial officer with an outstanding record of success in Asia was headhunted last year for a top job in a large privately owned Chinese agribusiness corporation. He was trying to reconcile the books in preparation for a presentation to British and European analysts, and in frustration started to ask his colleagues some tough questions. Late one night, during this process, all became clear. A whistleblower emerged to provide him with some intriguing raw data. When he untangled and analysed it, he realised that what he now had was something he had certainly not sought. It was a most inconvenient truth. The data comprised ample evidence that the owner of the company was using a scam to cheat the Chinese government of tens of millions of dollars in subsidies every year. Cayman Islands-domiciled China Haohan is the second largest producer of tomatoes in China and, with 2 per cent of the global market, one of the world's 10 biggest makers of tomato paste. Its charismatic founder, chairman and chief executive is Kang Yi, a successful trader of tomato paste who five years ago was persuaded by his clients to form a manufacturing company. He raised more than $50 million from banks and from private investors in Hong Kong and built six state-of-the-art manufacturing centres in the vast north western Xinjiang autonomous region where the tomatoes are grown by farming families and bigger groups.

The seeds of the scam emerged from the risks associated with the long working-capital flows that the industry requires. The production cycle could last 9 months from receiving the initial order from customers, to the sowing of seeds, to harvesting the crop and processing it into tomato paste. While some of the paste is used domestically, the majority is exported by an associated company named Bositeng. Once the ship is loaded, Bositeng takes the bill of lading to its insurance company, which provides accreditation for the cargo to its bank, and then approval is granted for the ship to sail.

Kang solved his working capital shortage by negotiating to sell the paste for, say, $600 a tonne. He then issued a contract for a higher price, say $710 and issued a credit note covering the difference. The clients would agree to the odd double-bookkeeping arrangement, since tomato paste has been in short supply, so they appreciate fixing a guaranteed source, and the credit note would result in them paying the lower price that was initially negotiated. Kang then takes the invoices with the higher figure to the banks, which typically provide trade financing up to 80 per cent — about the same as the limit on home mortgages. So he receives higher trade financing, helping him to cover the long period in which he has to cover many costs, before he again receives revenues.

But the biggest benefit is that such agribusiness producers receive subsidies from the central government via the Customs department. The higher the value, the greater the subsidy. The tomato-growing season usually ends in the first week in October. Most of the harvest is sold by Christmas, so stocks should be empty by the start of the calendar year. The shipping manifestos appeared to confirm that the stock had all been shipped out. The inflated invoices indicated that there was still 20 per cent or so more income yet to be collected. The enormous gap that couldn't be explained could be attributable only to 'bad business, bad debt or bad accounting'. It was only through detailed forensic investigation that the answers became apparent. The money — about $30m across two years — was never meant to be collected from the buyers. It was just a paper trail for the benefit of China's Customs staff, to leverage the entitlement for subsidies. When questioned by the auditors, Kang responded that the money went through Hong Kong, and that this somehow accounted for the 20 per cent or so inflation. But he would not show the bank statements to prove it.

The overriding conclusion appears to be that sales, net profit and trade receivables were overstated, and rather than being a highly profitable company it is technically insolvent.

Source: Extract from Callick, R 2013, 'Australian executive exposes China agribusiness scam', ***The Australian***, November, www.theaustralian.com.au.

Chapter preview

Many economies today are credit economies. Manufacturers, wholesalers, retailers and service organisations regularly extend credit to buyers of their goods and services as a means of increasing sales. The willingness of entities to extend credit has been an important factor in the significant growth of the world economy over time. This extension of credit has given rise to accounts receivable or debtors. Commerce has also seen the growth of the use of negotiable legal instruments, referred to as bills of exchange and promissory notes, used as a means of extending credit and arranging finance. Other receivables arise when an entity lends money to owners and employees.

A common feature of all receivables is that they are regarded as highly liquid assets which generally are converted into cash in the short term, and hence are classified as current assets in the financial statements. Any receivables which are not expected to be collected within the operating cycle or within 12 months after the date of the financial statements are usually classified as non-current assets. Depending on the particular business entity, receivables can constitute a relatively large asset, and accurate accounting and control is important.

As the scene setter highlights, receivables management and cash collection are high-risk areas for businesses and are vital for their survival. The issues identified the importance of implementing control procedures to ensure receivables are properly accounted for and do not lead to the ability of personnel to manipulate accounting information to misappropriate funds. Receivables are required to be valued at their fair value in the financial statements. Overinflating the value of receivables does not comply with the ***Conceptual Framework*** and accounting standards.

Accounting for and control of receivables are discussed in this chapter.

12.1 Types of receivables

LO 1 **Define the different types of receivables.**

As indicated above, receivables are categorised into three main types: (1) accounts receivable, (2) bills and notes receivable, and (3) other receivables. Important aspects of these categories are examined below.

Accounts receivable

In a broad sense, accounts receivable relate to all accounts for which a business expects to receive money in the near future. More specifically, for accounting purposes, accounts receivable refer to those accounts which arise from the sale of goods and services on credit in the ordinary course of business. Credit is often extended to customers, i.e. the buyer has a specified length of time, such as 30 or 60 days, before payment is due. These customers' accounts are called **accounts receivable** or **trade debtors** by the entity granting credit. Chapter 7 illustrated the accounting procedures for accounts receivable. Sales of merchandise on credit plus any applicable GST were debited to the individual customers' accounts in the subsidiary ledger, and in the general ledger the same sales plus GST were debited to the Accounts Receivable Control account, the GST was credited to the GST Payable account, and the Sales account was credited for the sales revenue excluding GST on a periodic basis. The same procedures apply for the sale or provision of services. Accounts receivable are usually classified as current assets in the balance sheet, because they are expected to be collected in cash within the entity's operating cycle.

Bills receivable

Sometimes credit is granted only on receipt of a formal legal instrument such as a bill of exchange or a promissory note. A **bill of exchange** is simply a written order made by a debtor to pay a certain amount of money on a predetermined date in the future, and a **promissory note** is a written promise made by a debtor to pay a certain amount of money on a predetermined date in the future. This predetermined date is called the maturity date. Since an entity will receive cash in the near future for these instruments, they are collectively referred to as **bills receivable** and are both treated as bills receivable for accounting purposes.

Bills of exchange and promissory notes had their origins in the need to have an instrument which made it possible for the seller of goods to allow the buyer extended credit on sales and the payment for goods exported. Bills arising in this way are referred to as 'trade bills'. Trade bills should be accounted for in a similar manner to accounts receivable and should be amalgamated with accounts receivable for a number of important analyses of business performance.

The main use of bills today is as a means of obtaining finance. Bills are now an important feature of the capital market and these are referred to as 'commercial bills'. Commercial bills are freely traded in financial markets. Reporting practices at the moment do not appear to classify bills receivable into trade bills and commercial bills for balance sheet purposes. Since the term of all bills receivable ranges up to a maximum of 180 days, bills receivable are classified as current assets in the balance sheet.

Other receivables

Other receivables can also arise, such as loans to directors, managers and employees of the business entity, interest and rent receivable, amounts receivable as a result of the sale of non-current assets, and short-term deposits. These are recorded for accounting purposes outside the Accounts Receivable Control account and its subsidiary ledger. A separate account can be opened for each of the other receivables accounts in the general ledger, or a control account can be established, e.g. Other Receivables, and details of each of the individual non-trade receivables recorded in a subsidiary ledger. These accounts are classified as current assets and reported as such in the balance sheet if they are expected to be collected within the entity's operating cycle or within 12 months. Otherwise, they are classified as non-current assets.

The above classification of accounts receivable and other receivables is important to allow proper analysis by both management and external users of accounting reports of the performance and financial position of the business entity. As will be seen in a later chapter, certain analyses used in evaluating the performance of a business entity depend on this classification.

LEARNING CHECK

- ☐ Receivables are classified into three types — accounts receivable, bills receivable, and other receivables.
- ☐ Accounts receivable arise as a result of the sale of goods or provision of services on credit, whereas bills receivable arise as the result of offering extended terms of credit or as a means of obtaining finance.
- ☐ Other receivables arise as the result of offering loans to directors, customers and employees, from income (e.g. rent) receivable, and from the sale of non-current assets.

12.2 Accounts receivable (trade debtors)

LO 2 **Define accounts receivable, and discuss how accounting recognises and values them.**

Accounts receivable are assets because they represent resources controlled by the entity from which future economic benefits are expected to flow to the entity. Accounts receivable arise from the sale of goods or services on credit. The future economic benefits result from the right of the entity to receive cash from customers who have been extended credit. Although business entities would prefer to collect the money owing at the time of sale, experience has shown that extending credit can increase income and hence profit significantly. To accomplish an increase in profit, however, the additional gross profit generated by credit sales must exceed the additional expenses incurred in extending credit. These expenses include investigation of the creditworthiness of prospective customers, additional record keeping and the cost of uncollectable accounts.

As with all assets, accounting is concerned with:

- when to recognise the account receivable (recognition)
- how to measure the value of accounts receivable for reporting purposes (valuation)
- assisting in the management and control of accounts receivable (control).

The first two of these are dealt with in the following subsections, and the third is deferred until later in the chapter.

Recognition of accounts receivable

Recognition of accounts receivable presents few problems in accounting. For an entity providing services, accounts receivable are recognised when services are provided and invoices issued to cover the amount owing. For entities concerned with wholesaling and retailing goods, accounts receivable are recognised at the time of sale, evidenced by the issue of invoices detailing the amounts owing for the goods. If businesses are registered for the GST, the amount of GST is included in the amount of the account receivable. The only other accounting issue to be considered, apart from the subsequent receipt of cash, is the possibility of adjusting the amount to be received if the customer is offered a discount for payment in cash within a designated credit period or if, for some reason, the customer is given an allowance for returned or damaged goods. Accounting for cash discounts and sales returns and allowances were covered in previous chapters.

Valuation of accounts receivable

The valuation issue arises when accounts receivable have to be included in the financial statements at the end of the accounting period. Experience shows that not all amounts owing from receivables are collected. Therefore, the valuation of receivables becomes an important issue, since 100% will not normally be collected. This uncollected portion is known as bad debts. For balance sheet reporting purposes, it seems reasonable to report the accounts receivable in terms of their future economic benefits — their gross amount less an allowance for expected bad debts. The receivables are therefore reported at fair value. Remember also that the amounts of any receivables that will not be collected are an expense incurred as a result of the revenue earned from the initial sale. This bad debts expense (as it is called) will not be known with certainty until the next accounting period, but it is estimated in the current period as an expense of earning the current period's income. Therefore, anticipating future bad debts has consequences for reporting bad debts expense in the current period's income statement.

A major accounting problem lies in estimating the amount of the receivables that will become bad. Accounting for bad debts and doubtful debts and estimating and allowing for such debts are examined below.

LEARNING CHECK

☐ Accounts receivable/trade debtors are assets as they represent resources controlled by an entity from which future economic benefits are expected to flow.

- ☐ Accounts receivable are recognised generally when a sale of goods on credit occurs or when services are performed on credit.
- ☐ Receivables are valued at fair value, i.e. gross receivables less anticipated future uncollectables (bad debts).
- ☐ The valuation of receivables is important as this value is reflected in the financial statements — bad debts in the income statement and receivables at net realisable value in the balance sheet.

12.3 Bad and doubtful debts

LO 3 **Explain the nature of bad and doubtful debts and how to account for them.**

Regardless of the diligence and care exercised in extending credit, there are always some customers who do not pay all or some of the amounts they owe. When businesses make the decision to sell goods and services on credit, they know that some of the resulting accounts receivable will eventually prove to be uncollectable. These uncollectable accounts are called bad debts and are considered an expense of extending credit to customers.

In accounting, **bad debts expense** is commonly recognised in the same accounting period in which the credit sales were recognised. There is no general rule for determining the time at which a receivable actually becomes bad. The fact that the debtor fails to pay on the due date does not by itself establish that the debt is bad. The debtor may simply have forgotten to pay or may be temporarily short of cash and cannot pay until later.

The entity (creditor) normally makes a continued effort to collect overdue accounts through oral or written communication with the debtor, and may eventually turn the receivable over to a collection agency or begin legal action to recover the debt. This process may take many months to complete, with receivables arising in one accounting period being collected or written off in the following accounting period or later. Because the specific debtors that will eventually become bad are unknown, bad debts expense, as demonstrated below, is estimated at the end of the accounting period by what is known as the allowance method of accounting for bad debts.

Allowance method of accounting for bad debts

At the end of the accounting period, before the accounting records are closed and the financial reports prepared, an estimate is made of the amount of accounts receivable expected to be uncollectable, i.e. doubtful debts. An adjusting entry is prepared with a debit to the Bad Debts Expense account and a credit to an account called **Allowance for Doubtful Debts**. (For external reporting purposes, this allowance is sometimes called an ‘allowance for impairment of receivables’.) If accounts receivable include GST, remember that any GST included in a debt that becomes bad can be claimed as an adjustment (a write-back) of GST Payable recorded at the time of sale.

To illustrate, assume that CC Ltd began operations on 1 July 2014, made credit sales for $440 000 including GST during 2014–15, and collected $330 000 of these accounts during the year. The balance in the Accounts Receivable account at the end of the first year is therefore $110 000, including $10 000 GST. After a careful review of the accounts receivable, the management of CC Ltd estimated that $6600 of the accounts would be uncollectable. Since this amount includes $600 GST which will be recoverable from the ATO if and when any account becomes bad, the allowance for the doubtful debts is set at $6000.

An adjusting entry is made on 30 June 2015, the end of the financial year for CC Ltd, as follows:

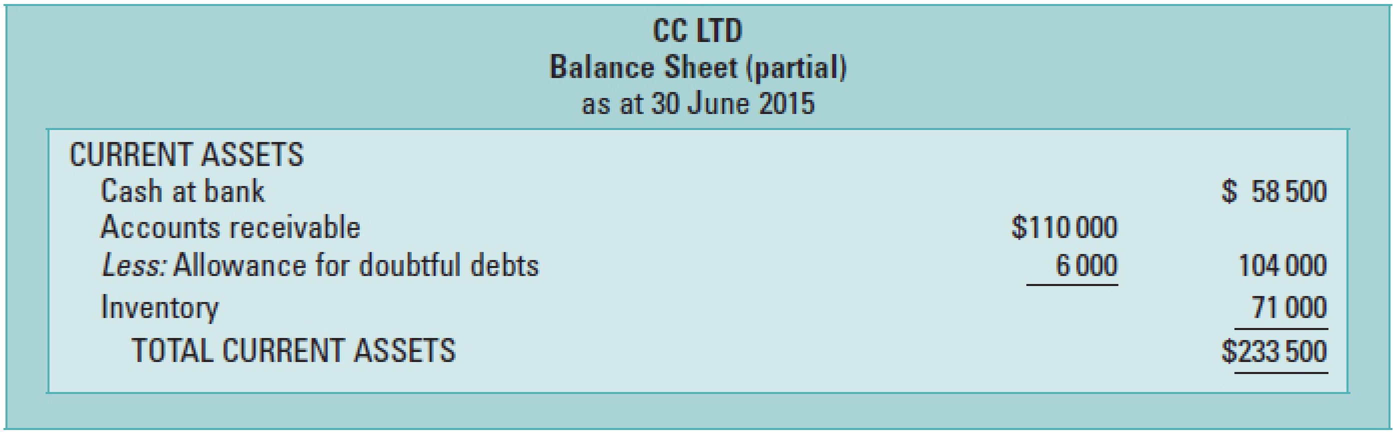
2015			
June 30	Bad Debts Expense	6 000	
	Allowance for Doubtful Debts		6 000
	(Estimated bad debts expense)		

The entry serves two important purposes. First, it records the estimated bad debts of $6000 as an expense of the period in which the income from credit sales was recognised, thereby matching expenses incurred to revenues earned. Note that the sales revenue recorded always excludes GST in accordance with recommended accounting practice. Bad debts expense of $6000 will be deducted on the income statement for the year ended 30 June 2015. Second, the entry establishes an allowance account that is deducted from accounts receivable on the balance sheet in order to report accounts receivable at their estimated fair (collectable) value as explained above. Note that the GST component of $600 is recoverable in the event of a debt being written off as bad.

Allowance for doubtful debts. Why credit an allowance account rather than crediting accounts receivable directly when recording the entry for estimated bad debts? Recall that the general ledger Accounts Receivable account is a control account supported by a subsidiary ledger that identifies the amounts owed by individual customers. Any debit or credit to the Accounts Receivable Control account requires a like debit or credit to one or more of the subsidiary ledger accounts. But it is impossible to determine in advance which specific accounts will prove bad. A direct credit to the Accounts Receivable Control account will produce an imbalance between it and the accounts receivable subsidiary ledger, thereby destroying an important element of internal control. The alternative is to credit an allowance account (in the nature of a contra-asset account) that, when subtracted from accounts receivable on the balance sheet, results in reporting accounts receivable at the estimated amount expected to be collected (i.e. fair value) as shown in figure 12.1.

Common usage has seen this account described in accounting standards and legislation as the Provision for Doubtful Debts. Accounting standard IAS 37/AASB 137 ***Provisions, Contingent Liabilities and Contingent Assets*** defined provisions as liabilities for which the amount or timing of the future sacrifice of economic benefits is uncertain. To reduce confusion in the use of the term ‘provision’, now defined as a subset of liabilities, we have adopted the term ‘allowance’ when used in relation to bad debts.

Figure 12.1 Reporting the allowance for doubtful debts



CC LTD
Balance Sheet (partial)
as at 30 June 2015

CURRENT ASSETS		
Cash at bank		$ 58 500
Accounts receivable	$110 000	
Less: Allowance for doubtful debts	6 000	104 000
Inventory		71 000
TOTAL CURRENT ASSETS		$233 500

Estimating doubtful debts

The estimate of the amount of doubtful debts is generally based on a combination of past experience and forecasts of future economic and business conditions, with considerable personal judgement involved. The goal is to produce a reasonable estimate of the amount of accounts receivable that will be collected eventually in cash. However, the use of an overcautious approach to recording and reporting sometimes causes accountants to produce a relatively low asset value for accounts receivable as well as an understated profit figure.

Two methods are widely used to estimate doubtful debts:

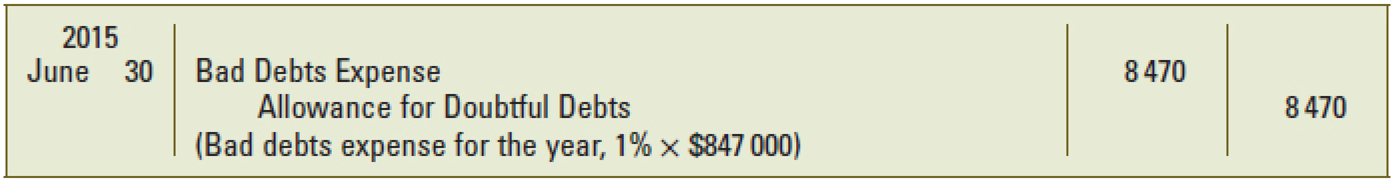
- percentage of net sales
- ageing of accounts receivable.

The first method determines the amount as a **percentage of net credit sales** for the period. Because this method uses net credit sales (credit sales less credit sales returns and allowances) as a base, it is sometimes called the ***income statement approach***. The method places emphasis on the relationship between credit sales and bad debts and is therefore an attempt to record the expense in the same period as the sales were made. Note that the amount of GST included in the amounts owing by accounts receivable is not relevant in this case.

The second method analyses the age and probability of collection of the individual accounts receivable and is called **ageing the accounts receivable**. Since this method bases doubtful debts on an analysis of accounts receivable, it is often called the ***balance sheet approach***. Emphasis is placed on determining the fair value of accounts receivable on the balance sheet. Most entities use one of these two methods, but not both. Any GST included in the doubtful accounts receivable is excluded from the amount of the allowance, and will only be considered in the event of the actual write-off of that account receivable.

Percentage of net credit sales method

An analysis of past accounting data usually establishes some predictable percentage relationship between the amount of bad debts and the amount of net credit sales (excluding GST). This percentage is then applied to net credit sales for the relevant period to estimate the amount of doubtful debts. The logic of this method is that credit sales produce the accounts receivable that may become bad debts in the future. As an example, assume that past experience shows that about 1% of net credit sales each year has been written off as bad debts and that net credit sales for the current year (excluding GST) amount to $847 000. The year-end adjustment to recognise bad debts expense is as follows:



2015			
June 30	Bad Debts Expense	8 470	
	Allowance for Doubtful Debts		8 470
	(Bad debts expense for the year, 1% × $847 000)		

Under this method, any existing balance in the Allowance for Doubtful Debts account is ignored. Basically, this method considers the question, ‘How much of this year’s net credit sales is expected to be uncollectable?’ and the Allowance for Doubtful Debts account is adjusted by that amount. If actual write-offs of bad debts to the allowance account in the subsequent period vary greatly from the amount provided, the balance of the allowance account can become too high or too low. An adjustment of the allowance must then be made.

Ageing of accounts receivable method

If the estimate of doubtful debts is based on an analysis of accounts receivable, the estimate is derived from a schedule that analyses and classifies accounts receivable by age. The preparation of the schedule is shown in figure 12.2. All amounts include GST.

Figure 12.2 Ageing of accounts receivable method of measuring doubtful debts

Ageing of Accounts Receivable
as at 30 June 2015

Customer	Balance	Not yet due	Number of days overdue				
			1–30	31–60	61–90	91–180	Over 180
Apex Ltd	$ 748		$ 748				
B. Brent	385	$ 385					
Carr Co. Ltd	649	264	385				
Darnett Ltd	946			$ 462	$ 484		
J. Evans	517						$ 517
S. Fox	236					$ 236	
E. Ware	814	814					
B. Yale	1 023	913			110		
Total	$91 960	$61 600	$11 660	$7 260	$4 620	$4 180	$2 640

The longer an account receivable is overdue, the greater the probability that it will become bad. Past accounting records are therefore analysed to determine the approximate percentage of each age group that will become bad debts. For example, the analysis of past accounting records below shows the percentages of accounts receivable that were written off as bad.

Age category	Percentage
Not yet due	1%
1–30 days overdue	5%
31–60 days overdue	10%
61–90 days overdue	20%
91–180 days overdue	30%
Over 180 days overdue	60%

With these data, the balance needed in the allowance for doubtful debts to reduce the accounts receivable to estimated fair value is calculated as follows:

		Estimated bad debts amount	
Age category	Amount	Percentage	Amount
Not yet due	$61 600	1	$ 616
1–30 days overdue	11 660	5	583
31–60 days overdue	7 260	10	726
61–90 days overdue	4 620	20	924
91–180 days overdue	4 180	30	1 254
Over 180 days overdue	2 640	60	1 584
	$91 960		$5 687

The total determined as doubtful and estimated to become bad of $5687 includes $517 (i.e. $^{1}/_{11}$ of $5687) of GST. This component would be recoverable from the ATO in the event of a bad debt, and is therefore excluded from the allowance for doubtful debts amount.

The total determined, $5170 (i.e. $5687 − $517), is the balance needed in the Allowance for Doubtful

Debts account. Consequently, any existing balance in the allowance account must be taken into consideration in determining the amount of the end-of-period adjustment to be made on 30 June. For example, if the Allowance for Doubtful Debts account already has a $1540 credit balance before adjustment, bad debts expense must be charged for the difference of $3630 (i.e. $5170 − $1540) and the following adjusting entry prepared:

June	30	Bad Debts Expense	3 630	
		Allowance for Doubtful Debts		3 630
		(Estimated bad debts expense for the coming year)		

After this entry is posted, the Accounts Receivable Control and Allowance for Doubtful Debts accounts appear as follows:

Accounts Receivable Control

30/6	Balance	91 960			

Allowance for Doubtful Debts

			30/6	Balance (before adjustment)	1 540
30/6	Balance c/d	5 170	30/6	Bad Debts Expense	3 630
		5 170			5 170
			1/7	Balance b/d	5 170

The Allowance for Doubtful Debts account may sometimes have a debit balance at year-end (before any adjustment entry is made) because more accounts than estimated actually became bad and were debited to the allowance account. If the Allowance for Doubtful Debts account had a debit balance (for example $260) before adjustment, that balance would be added to the $5170 and the total of $5430 would be debited to Bad Debts Expense and credited to the Allowance for Doubtful Debts account to produce the desired balance of $5170 in the allowance account.

Rather than preparing an ageing schedule as in figure 12.2, some entities simply analyse past data to determine a percentage relationship between estimated bad debts and accounts receivable. GST would be taken into account in this percentage. The percentage is multiplied by the balance in accounts receivable at the end of the year to determine the balance needed in the Allowance for Doubtful Debts account after extracting any GST component present. The account is then adjusted to that balance by an entry similar to the one shown previously.

BUSINESS KNOWLEDGE

Tardy payers costly — businesses face long wait for cash

Late payers are making cash-strapped businesses wait nearly eight weeks for payment, a new report says.

The tardiness affects cashflow and can undermine the survival of businesses, the latest Dun & Bradstreet trade payments analysis finds. The research found Australian businesses were waiting up to 55 days for payment in the first quarter of this year, while in New Zealand the average payment time was 43 days. Among the worst offenders were big companies, employing more than 500 people, who took up to 58 days to settle their accounts.

‘The state of late payments in Australia is a handbrake on business activity at a time when great investment and productivity is needed,’ Dun & Bradstreet chief executive officer Gareth Jones said. ‘In this environment, a slowing cashflow cycle further hits businesses. Their ability to spend money and invest in the growth of their business, and by consequence the economy, is limited when they’re kept waiting for payments,’ he said. Mr Jones said continual late payments meant businesses struggled to meet their own costs. ‘We know that 90 per cent of small business failures are caused by poor cashflow,' he said.

Source: Excerpts from Heaney, C 2013, 'Tardy payers costly — businesses face long wait for cash', ***Herald Sun***, 23 May.

Writing off bad debts

When an account receivable is determined to be bad, it is written off by debiting the Allowance for Doubtful Debts account, writing back GST previously collected on the sale or service by debiting GST Payable, and crediting Accounts Receivable Control. An adjustment note complying with GST legislative requirements must be issued in order to obtain an adjustment of GST previously collected. Of course, the related account in the accounts receivable subsidiary ledger is also credited. For example, assume that on 31 July 2015, after an extended effort to collect, the $682 account of J. Evans is determined to be bad and the write-off of the account is authorised. The following entry is made:

2015			
July 31	Allowance for Doubtful Debts	620	
	GST Payable	62	
	Accounts Receivable Control – J. Evans		682
	(Write off the account receivable as bad)		

Note two important things. First, the write-off is debited to the Allowance for Doubtful Debts account not to Bad Debts Expense. The bad debts expense was recognised on an estimated basis at the end of the year in which the sale was made. To charge an expense account again at the time the account is written off results in a double recording of the expense with a resulting understatement of profit. Second, the net amount of accounts receivable is unchanged by the entry to write off a bad debt but will be reduced by the GST on the bad debt. After the write-off entry is posted, the general ledger accounts appear as shown below.

Accounts Receivable Control

2015			2015		
1/7	Balance (before write-off)	91 960	31/7	Allowance for Doubtful Debts and GST Payable	682
			31/7	Balance c/d	91 278
		91 960			91 960
1/8	Balance b/d	91 278			

GST Payable

2015					
31/7	Account Receivable Control – J. Evans	62			

Allowance for Doubtful Debts

2015			2015		
31/7	Account Receivable Control – J. Evans	620	1/7	Balance (before write-off)	5 170
31/7	Balance c/d	4 550			
		5 170			5 170
			1/8	Balance b/d	4 550

Note that the net amount of accounts receivable (after adjusting for the GST recoverable) is the same after the write-off as it was before the write-off, apart from the adjustment for GST.

	Before write-off	After write-off
Accounts Receivable Control	$91 960	$91 278
Less: Allowance for Doubtful Debts	(5 170)	(4 550)
GST Payable adjustment	—	62
	$86 790	$86 790

The fact that the write-off (after adjusting for any GST) did not change the net amount of accounts receivable demonstrates clearly the notion that no expense results from the write-off of a bad debt. The expense from bad debts is effectively charged to the period in which the credit sale occurred rather than to the period in which the account is written off.

The total amount written off against the allowance account during a period seldom agrees with the amount in the allowance account at the beginning of the period. If write-offs during the period are less than the opening balance in the account, the account has a credit balance at the end of the period before adjustment. If write-offs exceed the opening balance, the account has a debit balance at the end of the period before adjustment. After the year-end adjustment to record bad debts expense, the Allowance for Doubtful Debts account will return to a normal credit balance.

Alternative approaches

Many approaches are available when accounting for bad debts. Some treatments advocate the use of a Bad Debts Expense account to record debts actually written off and a Doubtful Debts Expense account to record doubtful debts at period end when establishing the allowance account. Taxation authorities normally require this distinction to be made. We believe that our approach provides the most consistent accrual-based accounting approach. Also, remember that the Allowance for Doubtful Debts account is a ***monthly adjustment*** in practice, and it may take several months for a bad debt allowed for to actually become bad. Writing off to the allowance account is appropriate under the balance sheet approach, as receivables will be reported at the appropriate net realisable value at each month-end (after adjusting for any GST in the allowance).

Recovery of an account written off

In some cases, an account that has been written off is collected in part or in full at a later date. If this occurs, the account receivable should be re-established in the accounts in order to maintain a complete history of the customer's activity. This could be important for future credit rating purposes. Assume, for example, that J. Evans underwent bankruptcy proceedings and that a final settlement of his account was received on 4 November 2015 for $275. The entry to reinstate the account receivable previously written off, including its GST component, is:

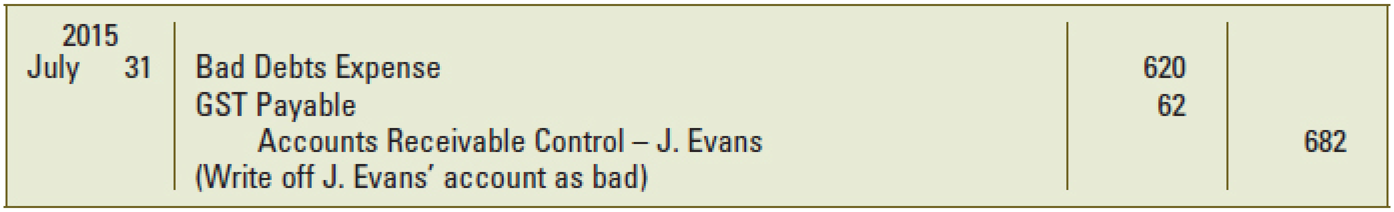
2015			
Nov. 4	Accounts Receivable Control – J. Evans	275	
	GST Payable		25
	Bad Debts Recovered		250
	(Re-establish part of the account receivable written off as bad on 31 July)		

An account called Bad Debts Recovered is credited, and is shown as an item of other income in the entity's income statement. Note that any GST included is payable and hence the GST Payable account is credited for such amount.

After the receivable account is re-established, the cash collection is recorded so that there is a debit to the Cash at Bank account for $275, a credit to the Accounts Receivable Control account, and a credit to the account of J. Evans in the subsidiary ledger for $275.

Direct write-off method

Although the allowance method is the one that effectively relates expenses to income and is the method most widely used, some small business entities use the **direct write-off method**. With this method, no allowance is made for expected bad debts and only actual bad debts are charged to expense at the time an account is determined to be uncollectable. This is done by debiting Bad Debts Expense and crediting Accounts Receivable Control and the appropriate account in the subsidiary ledger. Using the previous example, if the account of J. Evans is written off as bad under this method, the following general journal entry is made:



2015 July 31	Bad Debts Expense	620	
	GST Payable	62	
	Accounts Receivable Control – J. Evans		682
	(Write off J. Evans' account as bad)		

If the end of the reporting period is 30 June, no attempt is made on that date under this method to value total receivables at fair value. For this reason, the direct write-off method is not recommended in practice and its use is justified only on the basis of immateriality of the amounts normally involved. Many small business entities sell goods and services mainly on a cash or credit card basis and make only occasional sales on credit, and any bad debts written off will be small. In the event that an account previously written off is collected later, the collection is recorded in the same way used for the allowance method described above.

Although the allowance method is the one recommended for use in the entity's accounting system, the entity can claim as an allowable deduction for taxation purposes only those debts which have actually been written off during the year, i.e. the amount debited to the Allowance for Doubtful Debts account in the entity's accounting system if the allowance method is used.

Use of the direct write-off method produces the appropriate 'expense' for income tax purposes, but its use in the accounting records means that Accounts Receivable in the balance sheet is not shown at fair value, as there is no contra asset for estimated doubtful debts. This is contrary to the requirements of accounting standards which require a company to make adequate allowance for impairment of receivables before the income statement is prepared.

LEARNING CHECK

- ☐ Bad debts are the part of receivables that is not collected, and are recognised in the same accounting period in which the credit sales/income resulting in the receivables concerned occurred.
- ☐ The allowance method of accounting for doubtful debts is based on estimating the amount of receivables which will not be collected at the end of an accounting period.
- ☐ The amount of doubtful debts is estimated by using the percentage of credit sales or an ageing analysis of receivables.
- ☐ Bad debts expense is reported in the income statement and the allowance for doubtful debts is reported in the balance sheet as a deduction from gross receivables.
- ☐ The recovery of a debt previously written off as bad is accounted for by reversing the entry originally made to write off the receivable, and the cash receipt is recorded as usual.
- ☐ Under the direct write-off method of accounting for bad debts, the debt is written off as bad at the time a decision is made that the debt is uncollectable. No allowance is maintained.

Demonstration problem

Transactions affecting Bradford Ltd's accounts receivable for the year ended 30 June are presented below. On 1 July of the previous year, the opening balance of the Allowance for Doubtful Debts account was a credit of $1960. GST is 10%.

Aug. 3 Wrote off the $770 account of Gum Ltd as uncollectable.

Sept. 6 Received 50% of the $704 balance owed by J. Wiley and wrote off the remainder as a bad debt.

Oct. 16 Recorded the collection of $528 from G. Rhodes in full payment of her account, which had been written off earlier as a bad debt.

Jan. 15 Wrote off the accounts of Pauley Ltd, $1210, and R. Donley, $396, as bad debts.

March 9 Received $550 from E. Darkins in full payment of his account, which had been written off earlier as a bad debt.

April 8 Received 25% of the $2860 owed by North Ltd and wrote off the remainder as a bad debt.

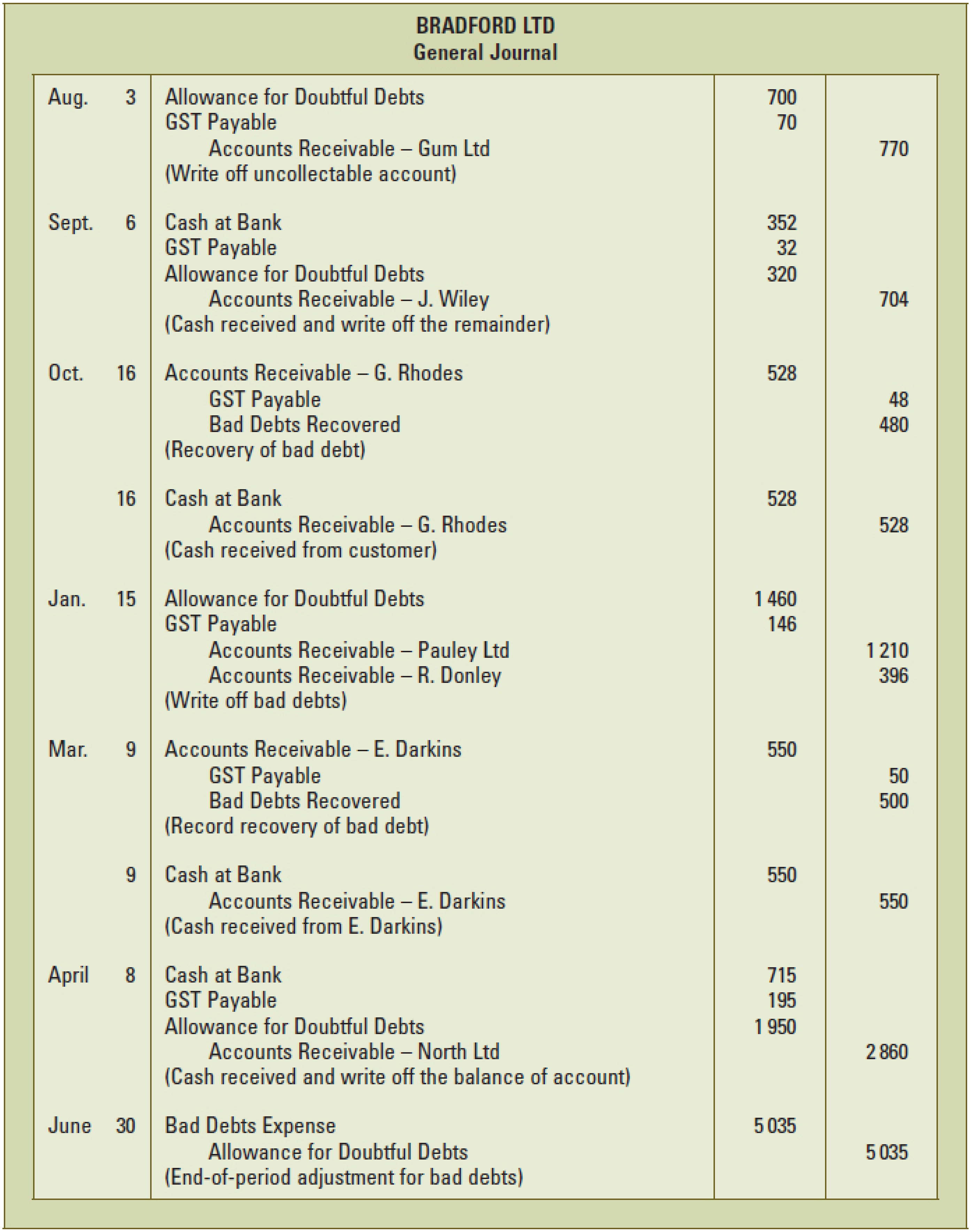
June 30 Estimated bad debts expense for the year to be 1% of net credit sales of $503 500 (excluding GST).

Required

A. Prepare journal entries for each of the transactions in general journal format.
B. Prepare the Allowance for Doubtful Debts account showing the balance of the account after the 30 June adjustment.
C. Assume that, instead of basing the allowance on net credit sales, the allowance is based on an ageing of accounts receivable and that $8921 of the accounts receivable at 30 June were estimated to be uncollectable. Determine the adjustment necessary to bring the allowance account to the desired balance, and prepare the Allowance for Doubtful Debts account.

Solution to demonstration problem

A.



BRADFORD LTD
General Journal

Aug.	3	Allowance for Doubtful Debts	700	
		GST Payable	70	
		Accounts Receivable – Gum Ltd		770
		(Write off uncollectable account)		
Sept.	6	Cash at Bank	352	
		GST Payable	32	
		Allowance for Doubtful Debts	320	
		Accounts Receivable – J. Wiley		704
		(Cash received and write off the remainder)		
Oct.	16	Accounts Receivable – G. Rhodes	528	
		GST Payable		48
		Bad Debts Recovered		480
		(Recovery of bad debt)		
	16	Cash at Bank	528	
		Accounts Receivable – G. Rhodes		528
		(Cash received from customer)		
Jan.	15	Allowance for Doubtful Debts	1 460	
		GST Payable	146	
		Accounts Receivable – Pauley Ltd		1 210
		Accounts Receivable – R. Donley		396
		(Write off bad debts)		
Mar.	9	Accounts Receivable – E. Darkins	550	
		GST Payable		50
		Bad Debts Recovered		500
		(Record recovery of bad debt)		
	9	Cash at Bank	550	
		Accounts Receivable – E. Darkins		550
		(Cash received from E. Darkins)		
April	8	Cash at Bank	715	
		GST Payable	195	
		Allowance for Doubtful Debts	1 950	
		Accounts Receivable – North Ltd		2 860
		(Cash received and write off the balance of account)		
June	30	Bad Debts Expense	5 035	
		Allowance for Doubtful Debts		5 035
		(End-of-period adjustment for bad debts)		

B.

ACCOUNT **Allowance for Doubtful Debts**

Date	Explanation	Debit	Credit	Balance
July 1	Balance			1 960 Cr
Aug. 3	Accounts Receivable – Gum Ltd	700		1 260 Cr
Sept. 6	Accounts Receivable – J. Wiley	320		940 Cr
Jan. 15	Accounts Receivable – Pauley Ltd and R. Donley	1 460		520 Dr
April 8	Accounts Receivable – North Ltd	1 950		2 470 Dr
June 30	Bad Debts Expense (Adjusting entry)		5 035	2 565 Cr

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c.
ACCOUNT **Allowance for Doubtful Debts**

Date	Explanation	Debit	Credit	Balance
July 1	Balance			1 960 Cr
Aug. 3	Accounts Receivable – Gum Ltd	700		1 260 Cr
Sept. 6	Accounts Receivable – J. Wiley	320		940 Cr
Jan. 15	Accounts Receivable – Pauley Ltd/Donley	1 460		520 Dr
April 8	Accounts Receivable – North Ltd	1 950		2 470 Dr
June 30	Bad Debts Expense (Adjusting entry)		11 391	8 921 Cr

12.4 Management and control of accounts receivable

LO 4 **Identify the principles involved in the management and control of accounts receivable.**

Accounts receivable arise by granting credit to customers. A number of important managerial decisions need to be made in this process — the entity has to decide (1) how it will determine which customers will be offered credit, (2) what the terms of the credit will be, and (3) how to communicate these terms to existing and potential customers. The entity must also determine (4) policies to ensure satisfactory collection of amounts owing, (5) methods to encourage accounts receivable to pay on time, and (6) the methods to use to follow up slow-paying customers or clients.

A business entity also needs to constantly review the composition of its accounts receivable in terms of amounts presently owing and amounts overdue. The success or otherwise of the entity's credit and collection policies can be gauged by a number of techniques, including ratios.

An appropriate system of internal control needs to be in place. Management must also be mindful of the costs of carrying a large volume of accounts receivable, and be aware of opportunities and methods that can be used to reduce these costs.

It is important that all matters relating to the control of credit policies and accounts receivable are properly organised and administered, and most organisations of any size establish a credit department, under the control of a credit manager. Some of the more important functions of a credit department (or, in its absence, management) are discussed below under the headings of (1) credit policies, (2) monitoring credit policies, (3) internal control of accounts receivable, and (4) disposal of accounts receivable.

Credit policies

No business entity wants to extend credit to a customer or client who is unlikely to pay the account when due. The **credit department** is responsible for investigating the credit history and determining the debt-paying ability of customers who apply for credit.

- If the customer is a business entity, the credit department normally requests a set of its audited financial statements for use in judging its ability to pay.
- If the customer is an individual, the credit department asks for information about current earnings,

current expenses, outstanding debts, general financial position and past experiences in handling obligations.

In addition, the credit department may obtain a credit report from a local or national credit-rating agency that accumulates data on the credit history of individuals and business entities.

The decision on the creditworthiness of potential customers/clients is an important one since, if the entity is too generous in extending credit to risky customers, losses will be incurred. But if credit policies are too tight, existing customers will be lost and potential customers may go elsewhere. If approved credit customers do not prove worthy of credit, then credit could be withdrawn, and future sales made only on a cash basis.

The credit department, having established the creditworthiness of a potential customer, must then communicate the established terms to the customer. Terms normally state the period after the date of the invoice by which the amount due should be paid, e.g. 30 days, and any cash discounts for prompt payment to which the customer is entitled. Cash discounts are stated as a percentage of the invoice amount if paid within a certain period of time, e.g. 2/10, n/30 days. Credit terms may need to be reviewed from time to time both for receivables as a whole and for individual customers.

Monitoring credit policies

The best measure of success or otherwise of the credit policies of a business entity is receipt of cash collections within normal credit terms. Poor credit policies usually see a gradual rise in the number of accounts receivable exceeding the normal period for payment, and an increase in the number of accounts that have to be written off as bad. It is essential that overdue accounts are detected early, and steps are taken to encourage payment. This may entail reminder notices, letters, phone calls to discuss payment problems, and handing the debt over to a collection agency. If all these methods fail, a decision must then be taken to write the account off as a bad debt.

Ageing analysis of receivables

The longer an account is overdue, the more likely it will become bad. An ageing analysis of accounts receivable is one method used to gauge the age of individual customers' balances, and identify those accounts which require the attention of the credit department. Ageing analysis of receivables was covered on pages 527–8 in determining the amount of the allowance for doubtful debts. Such an analysis provides an important control mechanism in monitoring cash collections. An analysis should be done regularly, usually monthly, and follow-up action taken on slow-moving accounts. Computerised accounting systems can provide an up-to-date analysis on a daily basis if required, providing timely information for management action. An ageing analysis can also help management predict future cash inflows for cash planning purposes.

Calculating and analysing ratios

Management can also make use of ratios to assess credit control performance. One useful ratio, described as a credit risk ratio, is derived by dividing the level of the allowance for doubtful debts by the level of accounts receivable. The trend in this ratio over time indicates an improving or a worsening of credit policies. A comparison of industry averages, if available, also provides useful information for decision making. Two other common measures used by management in monitoring and controlling accounts receivable are the receivables turnover ratio and average collection period.

Receivables turnover

The **receivables turnover ratio** is a measure of how many times the average receivables balance is converted into cash during the year. It is also considered a measure of the efficiency of the credit-granting and collection policies that have been established, and is calculated as follows:

$$\text{Receivables turnover} = \frac{\text{Net credit sales revenue/income}}{\text{Average receivables}}$$

The higher the receivables turnover ratio, the shorter the period of time between recording a credit sale and collecting the cash. To be competitive, the credit policies established by an entity are influenced by industry practices. Comparison of this ratio with industry norms can reveal deviations from competitors' financial results.

In calculating this ratio, credit sales (cash sales excluded)/credit income should be used in the numerator whenever the amount is available. However, such information is normally not available to external users of financial statements, so net sales revenue/income is then used as a substitute. An average of monthly receivables balances (including any trade bills receivable) should be used in the denominator. In the absence of monthly information, the year-end balance, or an average of the beginning-of-year and end-of-year balances, or averages of quarterly balances are used in the calculation.

Many financial analysts prefer to use gross receivables in the calculation instead of net receivables as stated above. It is argued that a more accurate calculation of receivables turnover is provided by using average ***gross*** receivables in the denominator, i.e. before deduction of any allowance for doubtful debts. Gross receivables does represent the actual legal balances that an entity would be attempting to collect. Using this argument, any GST included in the receivables balances would not be deducted.

Average collection period

Frequently, the receivables turnover ratio is divided into 365 days to derive the average number of days it takes to collect receivables from credit sales. The new ratio so calculated is often called the **average collection period** for receivables and may be calculated as:

$$\text{Average collection period} = \frac{\text{365 days}}{\text{Receivables turnover ratio}}$$

or, if expressed fully:

$$\text{Average collection period} = \frac{\text{Average receivables} \times 365}{\text{Net credit sales revenue/income}}$$

If credit terms are 2/10, n/30, the amount of accounts receivable outstanding at any time should be less than the credit sales for the last 30 days, because many of the credit accounts will have been paid within the discount period. If allowance is made for slow-paying accounts, the receivables may represent 30 to 35 days sales. If the receivables exceed this limitation, a careful analysis of all the accounts should be made.

To illustrate the calculation of the receivables turnover per year and the average collection period, the following data for James Ltd are used:

	2017	2016	2015
Credit sales for year	$367 200	$331 200	$320 000
Accounts and bills receivable at end of year	$ 28 840	$ 34 400	$ 30 000

Only gross receivables (accounts and bills) (including GST) arising out of the sale of inventory or provision of services on credit are used.

	2017	2016
A. Net credit sales	$367 200	$331 200
B. Days in year	365	365
C. Average receivables [(balance at beginning of year + balance at end of year) ÷ 2]	$31 620	$32 200
D. Receivables turnover per year (A ÷ C)	11.61 times	10.29 times
Average collection period (B ÷ D)	32 days	35 days

Average collection periods vary with the nature of business activity. Wholesalers of footwear may average 40 days, compared with grocery wholesalers whose average may be 15 days. In the illustration above, assuming that credit sales are on terms of 2/10, n/30, both years show a healthy situation, since average collection periods are just in excess of the credit period, with 2017 showing an improved performance. For a benchmark of performance, the preceding year's rate or the industry rate may be used. An increasing turnover of receivables as exhibited above indicates an improvement from 2016 to 2017, and hence reflects a decreasing relative amount of investment in receivables.

BUSINESS KNOWLEDGE

Resolve your beef

Instead of stewing over late payments, try invoice financing to keep the cash flowing, a growing business does not necessarily mean more money in the bank — it may just mean more money owed to you by customers. However, factoring — also known as debtor financing or invoice financing — can free up the value of the invoices you have issued but are yet to receive payment for.

'Most businesses provide some form of credit — maybe up to 90 days. So in providing credit to customers it has an impact on cash flow and you find financiers willing to take a position against those debts.' ... while it can be an expensive form of debt — with interest charged anywhere between about 12 and 17 per cent — it is 'most definitely' an option that many small businesses may find worthwhile. 'It adds to the bottom line and can alleviate cash flow difficulties,'... NAB head of trade and invoice finance product management Michael Wood says bringing forward cash flow by leveraging trade receivables — or unpaid invoices — offers flexibility to businesses. 'The advantage is they don't have to wait before getting cash — they're getting cash today instead of waiting the 90 days for it to come in,' he says. Wood says the facility usually allows business people to draw down on it as needed, rather than having to take the full value of the invoices as they are paid. He says the convenience and flexibility of this type of financing are 'certainly probably the two key things' that make it such a popular option for many small businesses. 'By leveraging the receivables it can on occasion allow them to access more cash without having to put up alternative security.'

Paul Tory, director of meat and smallgoods wholesaler Total Meats says their accounts are usually issued with a 30-day payment order and even that is often stretched. 'It's a battle to manage cash flow,' Tory says. 'With factoring, or debtor finance, they (financial institution) pay me the money as soon as it's invoiced — they pay 75 per cent upfront and they will pay the remaining 25 per cent once collected.' Tory, also a member of the Entrepreneurs' Organization, says he could often be owed a substantial sum of money at any one time and previously could not access it. 'The bigger I grew, the more I was owed so this has allowed me to access that money.'

Source: Excerpts from Larkin, N 2013, 'Resolve your beef', ***The Daily Telegraph***, 18 November.

Internal control of accounts receivable

As in the case of cash, adequate safeguards must be established for accounts receivable. It is important that people who maintain the accounts receivable records should not have access to cash receipts. Recording of sales returns and allowances, discounts allowed, and bad debt write-offs should be authorised by a responsible officer and separated from the cash receipts and cash payments functions. Monthly statements of account should be verified and forwarded to customers by someone other than the person in charge of the accounts receivable records. Another independent check should be made to ensure that the statements sent to customers are in agreement with the accounts receivable records.

Slow-paying accounts should be reviewed periodically by a senior official of the business. Adequate control over receivables begins with the receipt of an approved purchase order and continues through all the remaining stages in the credit sales process: approval of credit terms, shipment of goods, customer invoicing, recording of the account receivable and its ultimate collection.

Disposal of accounts receivable

Sale of accounts receivable

As many business transactions are conducted on credit, accounts receivable constitutes a large asset for many businesses, representing sales that have not been collected in cash. Entities are not only forgoing cash but also incurring considerable costs in credit control, preparing and sending accounts, and collecting debts, and consequently incurring losses through bad debts. It is therefore becoming common practice for businesses to sell their accounts receivable.

Businesses sell their accounts receivable in order to:

- realise cash to finance trading operations
- provide a source of cash for other reasons
- minimise the costs of credit control, collection expenses and bad debt losses.

Disposal of accounts receivable is referred to as the **factoring** of accounts receivable. The business entity or financial institution which buys the receivables for a fee and then collects the amounts receivable is known as a **factor**. There are businesses which specialise in factoring. Credit card companies such as American Express and Diners Club and financial institutions which issue MasterCard, Visa card and similar credit cards are, in effect, specialising in collection of accounts receivable. Businesses which offer EFTPOS facilities are, in effect, factoring potential accounts receivable to a financial institution.

Factoring arrangements differ from factor to factor, but normally a commission of 2–3% is charged. A typical journal entry to record the sale of accounts receivable to a factor is illustrated below. Assume that Jacko's Ltd factors $500 000 of receivables to Allstate Factors Ltd, which imposes a service charge of 2% of the gross amount of the receivables being disposed of. A typical general journal entry to record such a sale is:

April	15	Cash at Bank	490 000	
		Service Charge Expense	10 000	
		Accounts Receivable Control		500 000
		(Sale of receivables)		

Note that any GST paid or payable to the ATO which is included in the receivables factored would be recovered in the amount received by Jacko's Ltd from Allstate Factors Ltd.

Use of credit cards

Credit cards enable retail businesses and others to sell goods and services to customers where the customers obtain possession of the goods or have services performed immediately but do not have to pay for the goods or services for up to 55 days. A **credit card** enables the holder to obtain credit up to a predetermined limit from the issuer of the card for the purchase of goods and services. This arrangement amounts to the retail business transferring the detailed accounting for and collection of receivables to the issuer of the cards.

The accounting treatment for credit card sales depends on the type of organisation issuing the card. The major credit card issuers in Australia are the banks which issue the well-known Bankcard, Visa card and MasterCard. Non-bank institutions also issue credit cards, e.g. American Express and Diners Club.

When a transaction occurs, the retail business retains a copy of the transaction recorded by the use of the card. If the card is issued by a bank, these transaction slips are simply deposited at the bank along with the other banking each day, and can be shown on the deposit slip in total. The bank immediately credits the selling business's account with the value of the transaction slips being deposited. A typical general journal entry to cover, for example, MasterCard sales of $2000 plus GST on 22 April is:

April	22	Cash at Bank	2 200	
		GST Payable		200
		Sales		2 000
		(MasterCard sales)		

The bank issuing the credit card imposes a charge, normally referred to as a 'merchant's fee', on all credit card deposits recorded for the month, and deducts the appropriate fee from the Cash at Bank account of the business at month-end. This is revealed on the monthly bank statement, and the charge is debited to the Merchants' Fees Expense account. Assuming MasterCard deposits for the month of April of $15 400 and a credit card charge of 3%, the general journal entry to record the total charge is:

April	30	Merchants’ Fees Expense	462	
		Cash at Bank Account		462
		(Fees on monthly MasterCard sales for April)		

The entry to record the above fee is recorded normally in the cash payments journal. Note that, in practice, merchant fees are subject to GST. However, GST in this context is ignored in this book.

If a customer uses a credit card not issued by a bank, the transaction slips cannot simply be deposited at a bank for immediate credit to a Cash at Bank account. The transaction slips must be forwarded to the card issuer who then pays the entity the face value of the slips less the appropriate credit charge. The fee is negotiated and falls between 2% and 5%. Two entries are necessary in this case. One entry is made at the time of sale to record the sale and the amount owing by the card-issuing organisation, and another entry is made when payment is received from the card-issuing organisation.

To illustrate the general journal entries involved, suppose that services provided to customers who used World Express credit cards amounted to $12 100 including GST for the month ended 30 April. The transaction slips were forwarded to World Express and payment of $11 495 ($12 100 less 5% charges) was received on 5 May. The general journal entries to record these transactions are:

April	30	Accounts Receivable – World Express	12 100	
		GST Payable		1 100
		Fees Revenue		11 000
		(Fees receivable from World Express card)		

May	5	Cash at Bank	11 495	
		Merchants’ Fees Expense	605	
		Accounts Receivable – World Express		12 100
		(Receipt from World Express)		

Accounts receivable arising from credit card sales should not be included in the subsidiary ledger for trade receivables nor in the Accounts Receivable Control account. Accounts receivable from credit card use should be debited to an account such as Accounts Receivable – Credit Card Sales, or separate accounts set up for each card provider.

Use of debit cards

Prevalent in the retail industry is the **debit card**. These cards are used for electronic funds transfer at point of sale (EFTPOS). Use of a debit card by the cardholder results in an immediate transfer of funds from the cardholder’s account at the bank, which is debited, to the account of the business selling the goods or services, which is credited. The customer therefore receives no credit and the transaction is in essence a cash sale, and recorded as such.

Electronic transfer of funds has increased dramatically in recent years and continues to grow. EFTPOS services are provided by ‘merchants’ of such services, and they levy a variety of charges on the business providing the EFTPOS service, including a start-up fee, a charge for the EFTPOS terminals, and transaction fees. Note that GST is payable on fees not considered to be of a financial nature.

LEARNING CHECK

☐ Important decisions when considering the management of receivables include which customers should be offered credit, what credit terms should be offered, and how to communicate these policies to existing and potential customers.

☐ An entity’s credit department has the important functions of establishing and monitoring credit policies.

☐ Ageing of receivables, receivables turnover, and average collection period are important calculations in managing receivables.

☐ Factoring (or selling off) of accounts receivables is a means of quickly raising cash and minimising debt collection expenses and bad debt losses.

☐ Many sales transactions are paid for by credit card or debit card.

12.5 Bills receivable

LO 5 **Describe the nature of bills receivable and how to account for them.**

Bills of exchange and promissory notes are instruments that can be used for extending credit on normal trading transactions, where they are referred to as ‘trade bills’. Common examples of transactions involving trade bills are where a bill is received in exchange for an existing accounts receivable or, indeed, where a bill is received in payment for a sale at the time of sale. Credit can also be extended to customers where the credit is not based on normal trading transactions but purely on the basis of providing funds for a return of interest. These bills receivable are known as ‘commercial bills’. The principles used for accounting for all bills are the same.

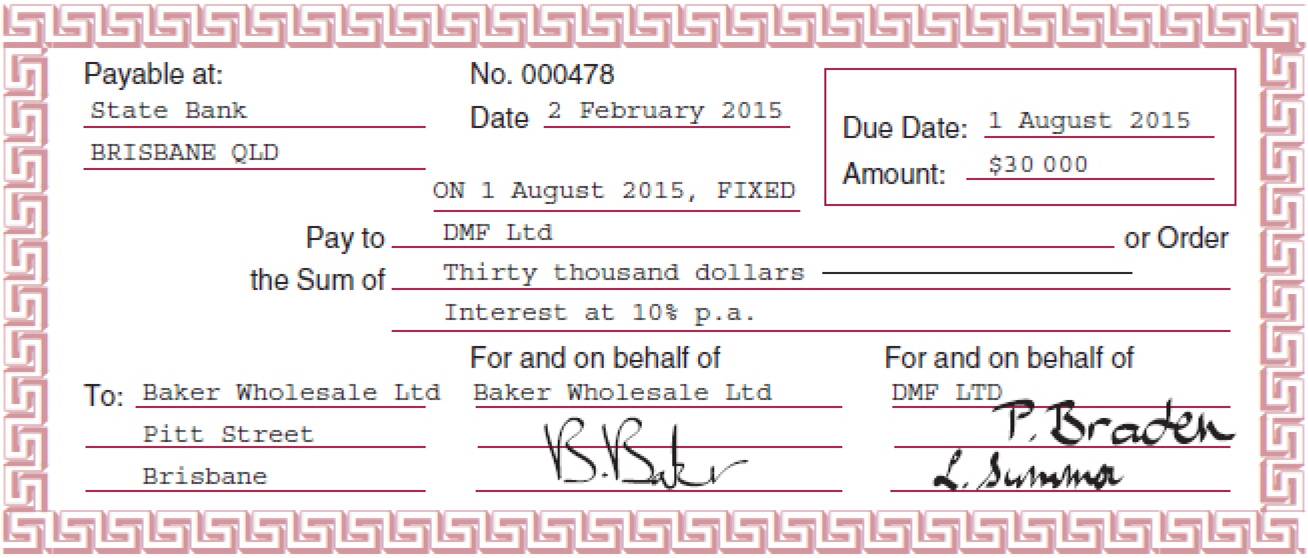
The law relating to bills of exchange and promissory notes is contained in the ***Bills of Exchange Act 1909*** (as amended). A bill of exchange is defined in this Act as ‘an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand, or at a fixed or determinable future time, a sum certain in money to or to the order of a specified person or to bearer’.

Essential features of a bill of exchange are that it must be an order which is unconditional, it must be in writing and it must involve three parties — the party issuing the order (the drawer) who must sign the bill, the person to whom the bill is addressed (the drawee and acceptor) and the person to whom payment is to be made (the payee). The date for payment must be fixed or be capable of being specifically determined.

Trade bills

Although format and presentation on the face of a bill of exchange can vary, a typical trade bill of exchange is illustrated in figure 12.3.

Figure 12.3 Trade bill of exchange



Payable at: State Bank
BRISBANE QLD

No. 000478
Date 2 February 2015

Due Date: 1 August 2015
Amount: $30 000

ON 1 August 2015, FIXED

Pay to DMF Ltd or Order
the Sum of Thirty thousand dollars
Interest at 10% p.a.

To: Baker Wholesale Ltd
Pitt Street
Brisbane

For and on behalf of
Baker Wholesale Ltd
B. Baker

For and on behalf of
DMF LTD
P. Braden

Here, DMF Ltd, the drawer of the bill, is the creditor who is owed $30 000 for equipment previously sold to Baker Wholesale Ltd on account. It is assumed that any interest involved is included in the $30 000 face value of the bill. DMF Ltd has drawn up the bill and forwarded it to Baker Wholesale Ltd for acceptance. In this form the bill is referred to as a ***draft***, and becomes an ***acceptance*** when accepted by Baker Wholesale Ltd which becomes the acceptor of the bill. Acceptance may involve Baker Wholesale Ltd writing the word ‘accepted’ on the face of the bill and attaching a signature. In figure 12.3, acceptance is effected when B. Baker signs for and on behalf of Baker Wholesale Ltd.

DMF Ltd in this example is the payee. Once the bill is accepted and the acceptance returned to DMF Ltd, it is regarded as a bill receivable by DMF Ltd since this business will ultimately receive cash for the bill on its maturity. Baker Wholesale Ltd, on the other hand, regards the accepted bill as a bill payable since, on the due date, Baker Wholesale Ltd is legally obliged to pay the face value of the bill to the holder of the bill.

Because the bill is made payable to DMF Ltd or order, it is possible for DMF Ltd to pass on or ***negotiate*** the bill to a third party for value received. Alternatively, DMF Ltd could cash the bill at a bank before the due date. This is referred to as discounting the bill. Of course, DMF Ltd will receive less than the face value of the bill if it adopts this option, because of the discounting charge which would be deducted by the bank.

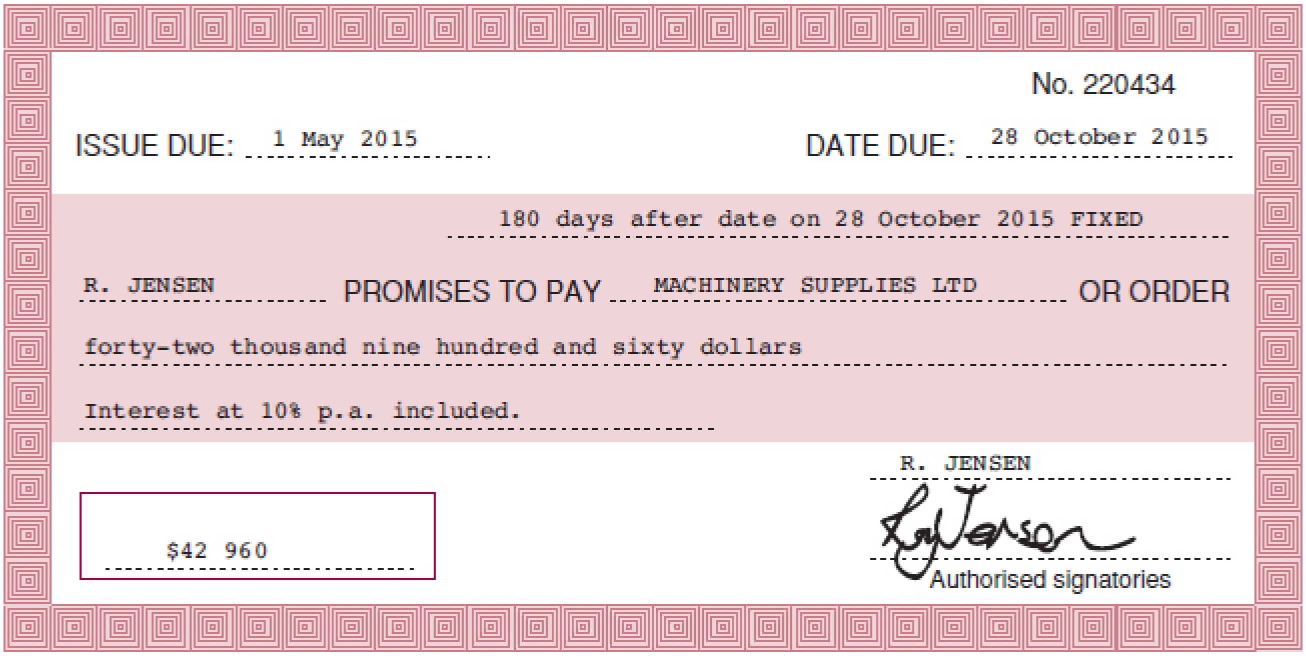
As already indicated, DMF Ltd could make use of a bill of exchange to obtain finance from a bank or other financier. Such an arrangement would lead to a liability for DMF Ltd, since such a bill would be a bill payable. Consideration of commercial bills is deferred until the chapter on liabilities.

Promissory notes

A promissory note is defined in the Bills of Exchange Act as ‘an unconditional promise in writing, signed by the maker, engaging to pay, on demand or at a fixed or determinable future time, a sum certain in money, to or to the order of a specified person, or to bearer’. The essential features of a promissory note are: (1) there must be an unconditional promise in writing; (2) it must involve two parties — the maker of the promise and the payee (usually specified, or it may be the bearer); (3) it must be signed by the maker; (4) it must specify the sum of money to be paid on demand or on a specified date.

As with bills of exchange, promissory notes arise as a result of trading and financing transactions. To illustrate a trade promissory note, assume that Machinery Supplies Ltd sold machinery to R. Jensen on 1 May 2015 for $40 000. Machinery Supplies Ltd agrees to take a 180-day promissory note, payable on 28 October, for the amount due together with $2960 to cover interest for the extended credit. A sample promissory note appears in figure 12.4. Machinery Supplies Ltd regards the promissory note when received from Jensen as a bill receivable, whereas Jensen treats the note as a bill payable.

Figure 12.4 Promissory note



No. 220434

ISSUE DUE: 1 May 2015

DATE DUE: 28 October 2015

180 days after date on 28 October 2015 FIXED

R. JENSEN PROMISES TO PAY MACHINERY SUPPLIES LTD OR ORDER

forty-two thousand nine hundred and sixty dollars

Interest at 10% p.a. included.

$42 960

R. JENSEN

Authorised signatories

Bills and notes are normally taken out for periods of 30, 60, 90, 120 or 180 days. The bill and note illustrated were both for a period of 180 days. Implicit in most trade and commercial bills and notes is a rate of interest. **Interest** is a charge made for the use of money. To the payee, interest is revenue; to the acceptor of a bill or maker of a note, interest is an expense. The amount of money stated on the face of a bill or note, e.g. $42 960 in figure 12.4, is called the **maturity value** and is the amount that must ultimately be paid on the date of maturity of the bill or note. In figure 12.4, the maturity date is 28 October, and the maturity value is made up of the **principal** of the debt, $40 000, plus $2960 interest.

Because most bills and notes are interest-bearing, an interest factor is generally implicit in the maturity value. The amount of the interest depends on market interest rates prevailing at the time the bill or note is written. Note also that some trade bills and notes may be non-interest-bearing in which case the maturity value is equal to the principal value of the debt being settled.

Determining due date

Bills and notes are issued for terms ranging from 30 to 180 days. The **maturity date** is determined as the number of days in the term after the issue date. To illustrate the calculation of a maturity date, let us assume that a 90-day promissory note was written on 14 February 2015. The maturity date is determined as shown below:

Term of the note in days		90
Number of days in February	28	
Date of note	14	
Number of days outstanding in February		14
Number of days remaining		76
Number of days in March		31
Number of days remaining		45
Number of days in April		30
Due date in May		15

Thus the maturity date is determined to be 15 May 2015. If the maturity date as determined falls on a non-business day, then the bill or note becomes payable on the next business day. Non-business days are Saturdays, Sundays and public holidays. Note that the term of the bill or note cannot be extended and the bill or note has to be 'rolled over', i.e. a new bill or note has to replace the old one.

Calculating interest on bills and notes

Whenever an entity issues a bill or note, a number of different charges become payable by the drawer or maker. The most important charge is that of interest for the use of the money over the period of the bill. Other charges such as establishment and acceptance fees and legal costs become payable. The amount of interest payable depends on the market rate of interest prevailing at the time of the issue of the bill or note.

For example, if ABC Ltd issued a fixed 90-day promissory note to DMF Ltd to cover a current debt of $30 000 owed by ABC Ltd, and the agreed interest rate is 10% p.a., the stated maturity value would be $30 739.73. This is calculated as follows:

$$\begin{aligned}
\text{Interest} &= \text{Principal} \times \text{Rate} \times \frac{\text{Days}}{365} \\
&= \$30\,000 \times 0.10 \times \frac{90}{365} \\
&= \$739.73 \\
\text{Maturity value} &= \text{Principal} + \text{Interest} \\
&= \$30\,000 + \$739.73 \\
&= \$30\,739.73
\end{aligned}$$

Note that interest rates are stated on an annual basis. Hence, when the term of the bill is for, say, 90 days, the interest charge must be determined by using the factor 90/365 in the formula (365 being the number of days in a calendar year). Although it is possible for the maturity value to exclude the interest charge, the practice of including interest in the maturity value of the bill is followed in this text.

Accounting for receipt and collection of bills receivable

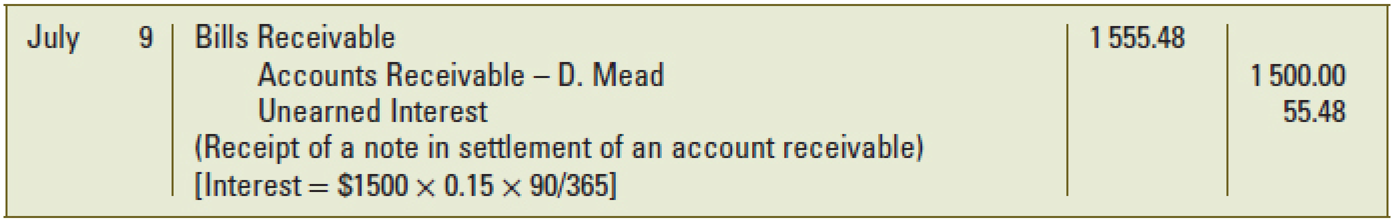
For accounting purposes, both bills and notes are classified as either bills receivable or bills payable, depending on whether the bill or note represents a right to receive cash in the future (a bill receivable) or an obligation to pay cash in the future (a bill payable). For the purposes of the following discussion, a bill receivable exists when an accepted bill of exchange, called an acceptance, is received or when a promissory note is received. For illustrative purposes, accounting for the receipt, collection, disposal and dishonour of promissory notes is demonstrated. Identical entries are made for a bill of exchange. Bills payable are covered in the chapter on liabilities.

Examples of the use of promissory notes include the following.

- Manufacturing and wholesale businesses that sell in large quantities often request a note from a buyer who asks for credit.
- Retail businesses may receive notes only occasionally, although they may sell high-priced items on an instalment plan under which the buyer pays a deposit and gives a note (or a series of notes with different maturity dates) for the balance.
- Businesses that regularly sell goods on credit are sometimes asked for an extension of credit beyond the normal due date. In these cases, the company sometimes insists that the customer gives an interest-bearing note to replace the account receivable.

A single Bills Receivable account is normally maintained in the general ledger of the payee. The Bills Receivable account is a control account, with a subsidiary ledger consisting of a file of the actual notes and bills held, arranged in order of due date. The notes and bills themselves contain all the information needed — the name of the drawer or maker, the acceptor, maturity date and interest rate. No other records are needed.

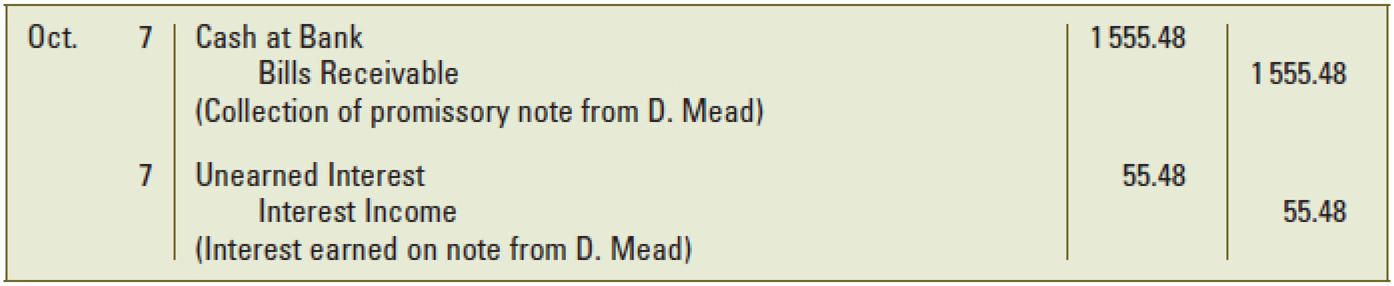
To illustrate the accounting treatment for bills receivable, assume that CC Ltd has an account receivable from D. Mead for $1500 that is overdue. Mead requested a 90-day extension of the payment date, and CC Ltd agreed by accepting a 90-day, 15% promissory note in exchange for the account receivable. Note that transactions relating to bills and associated interest are exempt from the GST, being transactions of a financial nature. Upon receipt of the note, CC Ltd makes the following entry:



July	9	Bills Receivable	1 555.48	
		Accounts Receivable – D. Mead		1 500.00
		Unearned Interest		55.48
		(Receipt of a note in settlement of an account receivable)		
		[Interest = $1500 × 0.15 × 90/365]		

This entry simply substitutes a bill receivable for the account receivable. Interest is included in the maturity value of the note and is recorded in an Unearned Interest account, a contra account to Bills Receivable.

On 7 October, when Mead pays the note, the entry in general journal form is:



Oct.	7	Cash at Bank	1 555.48	
		Bills Receivable		1 555.48
		(Collection of promissory note from D. Mead)		
	7	Unearned Interest	55.48	
		Interest Income		55.48
		(Interest earned on note from D. Mead)		

In the event that the promissory note is not paid on the due date, the note is said to be a **dishonoured bill**. CC Ltd would then have to take action to recover the amount due by other means. This could involve the receipt of a new note for the amount due plus an additional interest charge.

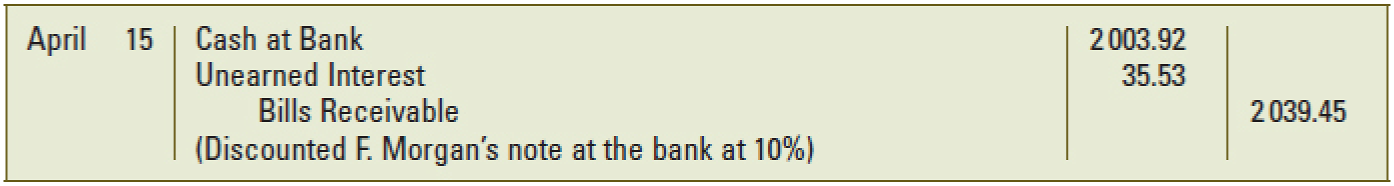
Discounting bills receivable

One of the positive features of a bill receivable is its relative ease of conversion to cash before its maturity date. The bill receivable may be endorsed by the holder and sold to a bank in exchange for cash. The bank then holds the bill or note until its maturity date, when it expects to collect the maturity value from its drawer or maker. This process is called ***discounting bills receivable*** because the bank will deduct in advance an interest charge called a **discount**. The discount is based on (a) the maturity value of the bill for the period it is held by the bank, i.e. the time between the date it is transferred to the bank and its due date, and (b) the discount rate used by the bank. In practice, the discount rate is based on the effective interest rate or yield. For our purposes we shall assume the discount rate given is the 'yield' rate. The maturity value less the discount deducted, called the **proceeds**, is then paid to the endorser by the bank.

To illustrate, assume that CC Ltd received a 90-day, 8% note dated 16 March from F. Morgan, to settle his debt of $2000. CC Ltd held the note until 15 April, on which date it was discounted at a bank at a discount yield rate of 10%. Since the maturity date of the note is 14 June (15 days in March, 30 days in April, 31 days in May and 14 days in June), the bank will hold the note for 60 days (15 days in April, 31 days in May and 14 days in June = 60 days). The period of time the bank holds the note before its collection is called the **discount period**, for which the bank will charge interest (discount) at 10%. The bank will deduct from the maturity value of the note 60 days interest at 10% and give CC Ltd the proceeds as follows:

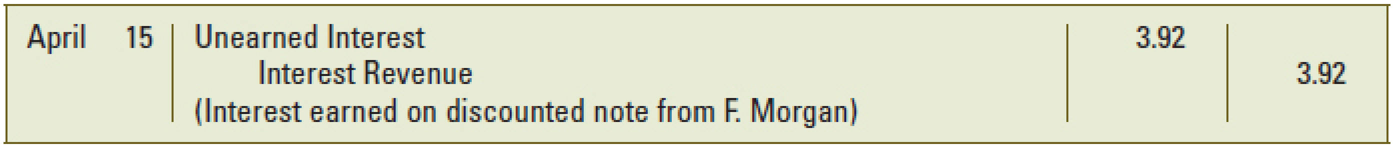
Amount of debt	$2000.00
Interest on note at 8% ($2000 × 0.08 × 90/365)	39.45
Maturity value of the promissory note	2039.45
Less: Discount at 10% for 60 days ($2039.45 × 0.10 × 60/365)	35.53
Proceeds	$2003.92

The entry in general journal form to record discounting of the note by CC Ltd is:



April	15	Cash at Bank	2 003.92	
		Unearned Interest	35.53	
		Bills Receivable		2 039.45
		(Discounted F. Morgan's note at the bank at 10%)		

The difference between the proceeds received and the maturity value of the note is recorded as a reduction of the interest which is yet to be earned. It represents the amount of interest CC Ltd has to give up to the bank by way of the discount charge. Any balance remaining in the Unearned Interest account is then transferred to Interest Revenue to record the net interest earned after discounting the bill. The discount on the bill is effectively offset against the interest that would have been earned if the bill receivable had been held until maturity date.



April	15	Unearned Interest	3.92	
		Interest Revenue		3.92
		(Interest earned on discounted note from F. Morgan)		

Contingent liability

A discounted note must be endorsed by the holder, who then becomes contingently liable for payment of the note. This gives rise to a **contingent liability** which refers to a potential or possible liability which can become an actual liability if a particular event occurs. In this case, a contingent liability exists in that the endorser (CC Ltd in our example) must pay the note on its maturity date ***if*** the maker (F. Morgan) fails to do so. The discounting of the note therefore creates a contingent liability for CC Ltd that continues until the due date of the note. If F. Morgan pays the note on its due date, the contingent liability ceases. If he defaults, CC Ltd's contingent liability becomes a real liability to the bank who will debit the account of CC Ltd for the maturity value of the note.

The nature and amount of any contingent liability must be disclosed in financial reports in accordance with IAS 37/AASB 137 ***Provisions, Contingent Assets and Contingent Liabilities***. Consequently, the contingent liability for bills receivable discounted must be disclosed if a balance sheet is prepared earlier than the maturity date of the notes. Disclosure is made by a footnote to the financial reports that explains the nature and amount of the contingent liability.

End-of-period adjustments for interest revenue

Interest is earned as time passes. When an interest-bearing bill receivable is held at the end of the accounting period, interest revenue should be calculated and recorded. For example, assume that CC Ltd received a 90-day, 10% promissory note on 1 May in settlement of the account of P. Edwards for $4000. The following entry is made on receipt of the note:

May	1	Bills Receivable	4 098.63	
		Unearned Interest		98.63
		Accounts Receivable – P. Edwards		4 000.00
		(Receipt of note from P. Edwards)		
		[Interest = $4000 × 0.10 × 90/365]		

As the term of the note expires, the unearned interest becomes interest revenue. At the end of the financial year on 30 June, 60 days of the term of the note have elapsed. An adjusting entry is therefore necessary at the end of the reporting period to give recognition of the interest revenue up to that date. The entry is:

June	30	Unearned Interest	65.75	
		Interest Revenue		65.75
		(Interest earned on note from P. Edwards)		
		[Interest = $4000 × 0.10 × 60/365]		

When the note is collected on 30 July in the new financial year, the following entries (in general journal form) are made:

July	30	Cash at Bank	4 098.63	
		Bills Receivable		4 098.63
		(Collection of note)		
	30	Unearned Interest	32.88	
		Interest Revenue		32.88
		(Interest earned on note)		

This entry removes the bill receivable and the unearned interest from the business records, and recognises the $32.88 interest revenue for the 30 days of the term of the note in the new financial year.

In computer-based accounting systems, calculations such as interest are performed quickly and accurately once the appropriate formula is programmed into the computer. Hand-held financial calculators also enable maturity date, interest and yields to be readily calculated.

LEARNING CHECK

- A trade bill is used to extend credit on the sale of goods (particularly in international trade) whereas a commercial bill is used for the purpose of obtaining finance.
- A bill receivable is an acceptance of a bill of exchange or a promissory note on which the entity expects to receive money in the future.
- The Bills Receivable account is a control account in the general ledger with a subsidiary ledger consisting of a file of the actual bills and notes held, arranged in order of date.
- The holder of a bill receivable can collect the amount of a bill at maturity date, or can obtain money before the maturity date by discounting it.

KEY TERMS

Accounts receivable, p. 522
Ageing the accounts receivable, p. 526
Allowance for doubtful debts, p. 525
Average collection period, p. 535
Bad debts expense, p. 524
Bill of exchange, p. 522
Bill receivable, p. 522
Contingent liability, p. 543
Credit card, p. 537
Credit department, p. 533
Debit card, p. 538
Direct write-off method, p. 530
Discount (in relation to bills of exchange), p. 542
Discount period, p. 542
Dishonoured bill, p. 542
Factor, p. 536
Factoring, p. 536
Interest (in relation to bills of exchange), p. 540
Maturity date, p. 540
Maturity value, p. 540
Percentage of net credit sales, p. 526
Principal, p. 540
Proceeds, p. 542
Promissory note, p. 522
Receivables turnover ratio, p. 534
Trade debtors, p. 522

DISCUSSION QUESTIONS

1. Discuss how the Allowance for Doubtful Debts account might have a debit balance before the end-of-period adjustment is made.
2. A basic difference between the direct write-off and the allowance method of recording bad debts is that of timing. Explain.
3. ‘The determination of the appropriate amount of the allowance for doubtful debts can be a complicated and onerous process. Determining the amount of the allowance by simply using a percentage of net sales is the obvious way to do it.’ Discuss.
4. A business student was heard to make the following remark: ‘With the existence of credit cards and factor businesses, it is now possible for business entities to offer extensive credit facilities to customers without having to worry about accounting for accounts receivable and all the problems that it brings. Carrying one’s own accounts receivable will become a thing of the past.’ Discuss.
5. Jane, a student of accounting, posed the following question: ‘When one looks at the disposal of accounts receivable, there are three different accounting methods for what is essentially the same thing.

How can this be?’ Discuss.

6. Several months ago, A. Johns, a trade debtor for $6600, had his account written off as a bad debt. A cheque has just been received in the post from Johns for $6600, and the assistant accountant made the following journal entry:

Cash at Bank	6 600	
GST Outlays		600
Bad Debts Recovered		6 000

The assistant accountant asserted that there were more complicated ways of handling such a transaction, but his method is simple and direct. Do you agree? Explain why or why not.

7. ‘Classification of receivables as current or non-current is not that important. The money is received eventually anyway, so what’s the big deal?’ Discuss.
8. ‘Control over receivables is not quite as important as control over cash.’ Discuss.

EXERCISES

Exercise 12.1 BAD DEBTS — DIRECT WRITE-OFF AND ALLOWANCE METHODS (EXCLUDING GST) LO 3

Centenary Ceramics deals in ceramic pots and figurines. All sales are conducted on a credit basis and no cash discounts are given. Ignore GST. The following information was extracted from the accounting records at 30 June 2015:

Sales	$552 000
Sales returns and allowances	37 900
Cash collected	319 120
Debts to be written off	4 022

Required

A. Assume that Centenary Ceramics uses the direct write-off method of accounting for bad debts.
   1. Show the general journal entry required to write off the bad debts.
   2. What amount would be shown for bad debts expense in the income statement at 30 June 2015?
   3. What amount would be shown for accounts receivable in the balance sheet at 30 June 2015?

B. Assume that Centenary Ceramics uses the allowance method of accounting for bad debts and the Allowance for Doubtful Debts account had a credit balance of $2645 at 1 July 2014. Also assume that an allowance of 1% of net credit sales is required at 30 June 2015 (ignore GST).
   1. Show the general journal entries required to write off the bad debts and bring in the required allowance for doubtful debts.
   2. What amount would be shown for bad debts expense in the income statement at 30 June 2015?
   3. What amount would be shown for accounts receivable in the balance sheet at 30 June 2015?

Exercise 12.2 BAD DEBTS — DIRECT WRITE-OFF AND ALLOWANCE METHODS (INCLUDING GST) LO 3

Refer to the information in exercise 12.1. Complete requirements A and B but this time include the impact of a 10% GST.

Exercise 12.3 BAD DEBTS AND FINANCIAL STATEMENT DISCLOSURE LO 3

The following transactions relate to the gardening maintenance business of Steve Jones. The balance in the Allowance for Doubtful Debts account on 1 July 2014 was $7440. The bad debts during the year ended 30 June 2015 amounted to $5220. Debtors’ balances on 30 June 2015 after the bad debts had been written off total $162 960, and a new allowance of 5% of debtors is required. (Ignore GST for the purposes of this exercise.)

Required

A. Prepare and balance the Allowance for Doubtful Debts account for the year to 30 June 2015.
B. Show how the above information would be disclosed in:
   1. the income statement for the year ended 30 June 2015
   2. the balance sheet as at 30 June 2015.

Exercise 12.4 DOUBTFUL DEBTS — NET CREDIT SALES METHOD **LO 3**

The following transactions relate to the business of Penrith Produce Ltd. Ignore GST.

June 30	Based on past experience, it was estimated that 1% of the year's net credit sales revenue of $330 000 will not be collected, and an allowance for doubtful debts was established.
Oct. 5	After a concerted effort to collect, an account receivable of $550 from M. McGrath was written off as a bad debt.
Nov. 15	M. McGrath unexpectedly paid $242 of the amount of his debt written off on 5 October.

Required

A. Record the transactions in general journal form.
B. What is the balance in the Allowance for Doubtful Debts account and the Bad Debts Recovered account? Where are these accounts shown on the financial statements?

Exercise 12.5 DOUBTFUL DEBTS — AGEING METHOD **LO 3**

On 30 June, the end of its financial year, Burnside Consulting completed an age analysis of its accounts receivable and determined that an allowance for doubtful debts of $12 320 was needed in order to report accounts receivable at their estimated collectable amount in the balance sheet. Assume a 10% GST.

Required

A. Prepare the entry to record bad debts expense assuming that the Allowance for Doubtful Debts account currently has a $1940 credit balance.
B. Prepare the entry to record bad debts expense assuming that the Allowance for Doubtful Debts account currently has a $820 debit balance.
C. Prepare the entry to write off an account receivable from G. Smith for $781.
D. Prepare the entry to write off the account receivable in requirement C above if the business was not registered for the GST.
E. Assume that before the entry recorded in requirement C above, the net amount of accounts receivable was $99 000, including GST. What is the net amount of accounts receivable after recording the write-off of Smith's account? Explain.

Exercise 12.6 DOUBTFUL DEBTS — NET CREDIT SALES METHOD **LO 3**

The following details were obtained from the accounting records of Civil Construction Consultants at the end of the financial year.

Consulting fee owing	$470 000 (excludes GST)
Allowance for doubtful debts	30 000
Debts to be written off	9 100 (excludes GST)

The firm requires an allowance for doubtful debts of 10% of outstanding fees at 30 June. Ignore GST.

Required

A. Prepare the appropriate general journal entries.
B. Prepare and balance the Allowance for Doubtful Debts account at 30 June 2015.
C. Show the amount(s) to be charged as bad debts expense for the year.

Exercise 12.7 DOUBTFUL DEBTS — NET CREDIT SALES METHOD LO 3

Refer to the data in exercise 12.6. Assume that the firm is registered for the GST, i.e. consulting fees owing will be $517 000 (including GST) and debts to be written off are $10 010 (including GST).

Required

A. Prepare the appropriate general journal entries.
B. Prepare and balance the Allowance for Doubtful Debts account at 30 June 2015.
C. Show the amount(s) to be charged as bad debts expense for the year.

Exercise 12.8 ALLOWANCE FOR DOUBTFUL DEBTS OVER TWO YEARS LO 3

The information in the following table relates to the accounts receivable and allowance for doubtful debts of Prime Moving Ltd. Ignore GST. The company policy is to provide an allowance for doubtful debts at the rate of 3% of accounts receivable at 30 June each year. The balance of the Allowance for Doubtful Debts account on 1 July 2014 was $10 000.

	June 2015	June 2016
Accounts receivable	$400 000	$450 000
Bad debts written off for past year	$ 12 000	$ 15 000
Required balance of Allowance for Doubtful Debts	(a)	(d)
Increase/decrease in allowance required	(b)	(e)
Allowance for doubtful debts at 30 June	(c)	(f)

Required

Determine the missing amounts in the table.

Exercise 12.9 DOUBTFUL DEBTS — AGEING METHOD, OVER 2 YEARS LO 3

While accounting for accounts receivable for Easy DVD Ltd, the following information became available to the accountant. At 1 July 2014, the Allowance for Doubtful Debts account balance was $8100. To 30 June 2015, debts amounting to $16 560 were written off as bad, and at 30 June 2015, the required allowance for doubtful debts was calculated under the ageing method to be $9450. To 30 June 2016, debts amounting to $12 690 were written off and at 30 June 2016 the allowance for doubtful debts was calculated under the ageing method to be $10 845. Ignore GST.

Required

A. Prepare and balance the Allowance for Doubtful Debts account and the Bad Debts Expense account for years ending 30 June 2015 and 30 June 2016.
B. Prepare the necessary general journal entries to bring the allowance for doubtful debts to the appropriate amount at 30 June 2015 and 30 June 2016.

Exercise 12.10 NOTE RECEIVED IN EXCHANGE FOR ACCOUNT RECEIVABLE LO 5

Cameron’s Cleaning Services Ltd has overdue fees receivable from L. Shore for $10 000. On 22 May, Shore requested a 90-day extension of the payment date, and the company agreed to accept a 90-day, 10% promissory note in exchange for the account receivable.

Required

A. Prepare a general journal entry to record the receipt of the promissory note.
B. Prepare general journal entries to record the cash received on the note on its maturity date, assuming the financial year ends on 30 June.
C. What impact would GST have on this transaction, if any?

Exercise 12.11 BILLS RECEIVABLE **LO 5**

The following transactions relate to the business of Richmond Raleigh Ltd.

1. A bill dated 6 July provided for payment after 90 days of $4000 plus interest at 10% p.a. was received on 6 July.
2. On 6 April, the company received a 90-day, 10% acceptance covering the amount owing by F. French, the acceptor, for $6000.
3. The club received a 60-day, 8% promissory note dated 9 March for a debt of $8000 from a customer, and discounted it at 10% at the bank after 30 days.

Required

A. What is the maturity value and maturity date of the bill in (1) above? Give the general journal entry to record the receipt of the bill.
B. Refer to the details provided in (2) above. Show the general journal entries to record receipt of the bill and its collection at its maturity date.
C. Refer to the details provided in (3) above. Show the general journal entries to record receipt of the bill and the discounting of the bill.

PROBLEMS

Basic
Moderate
Challenging

Problem 12.1 DOUBTFUL DEBTS — PERCENTAGE OF DEBTORS **LO 3**

Karen Broderick commenced business on 1 July 2014. On 30 June 2015, she found that she had written off debts amounting to $1875. In addition, she found it necessary to create an allowance for doubtful debts of $3030. During the year to 30 June 2016, debts totalling $2400 proved to be bad and were written off, and $330 was recovered in respect of bad debts previously written off. The total of debtors' balances at 30 June 2016 was $84 300 (after the bad debts had been written off) and it was decided to increase the allowance for doubtful debts to 5% of this figure. Ignore GST.

Required

A. Prepare general journal entries to record all the above transactions.
B. Prepare the Bad Debts Expense account and the Allowance for Doubtful Debts account for 2015 and 2016.

Problem 12.2 DOUBTFUL DEBTS — AGEING METHOD **LO 3**

On 1 June, Mason and Boyce had Accounts Receivable and Allowance for Doubtful Debts accounts as below. Ignore GST.

Accounts Receivable

1/6	Balance	849 555			

Allowance for Doubtful Debts

			1/6	Balance	12 100

During June, the following transactions occurred.

1. Fees earned on credit, $1 195 000.
2. Fees refunded, $24 100.
3. Accounts receivable collected, $1 400 000.
4. Accounts written off as uncollectable, $15 851.

Based on an ageing of accounts receivable on 30 June, the firm determined that the Allowance for Doubtful Debts account should have a credit balance of $13 500 on the balance sheet as at 30 June. Ignore GST.

Required

A. Prepare general journal entries to record the four transactions above and to adjust the Allowance for Doubtful Debts account.
B. Show how accounts receivable and the allowance for doubtful debts would appear on the balance sheet at 30 June.
C. On 29 July, Kim Ltd, whose $2400 account had been written off as uncollectable in June, paid its account in full. Prepare general journal entries to record the collection.

Problem 12.3 DOUBTFUL DEBTS — AGEING METHOD LO 3

On 1 June, McLean, Roberts and Associates had Accounts Receivable and Allowance for Doubtful Debts accounts as set out below. The firm is registered for the GST.

Accounts Receivable

1/6	Balance	847 000			

Allowance for Doubtful Debts

			1/6	Balance	12 250

During June, the following transactions occurred.

1. Fees earned on credit, $1 200 000 plus GST.
2. Fees refunded, $25 000 plus GST.
3. Accounts receivable collected, $1 450 000.
4. Accounts written off as uncollectable, $14 740.

Based on an ageing of accounts receivable on 30 June, the firm decided that the Allowance for Doubtful Debts account should have a credit balance of $13 000 on the balance sheet as at 30 June.

Required

A. Prepare general journal entries to record the four transactions above and to adjust the Allowance for Doubtful Debts account.
B. Show how accounts receivable and the allowance for doubtful debts would appear on the balance sheet at 30 June.
C. On 29 July, Blundell Ltd, whose $1870 account had been written off as uncollectable in June, paid its account in full. Prepare journal entries to record the collection.

Problem 12.4 DOUBTFUL DEBTS — NET CREDIT SALES AND AGEING METHODS LO 3

Great Outdoors Ltd sells outdoor furniture settings on credit. The accounting records at 30 June 2015 reveal the following. Ignore GST.

Credit sales (for year)	$1 070 000
Credit sales returns and allowances (for year)	90 000
Accounts receivable (balance 30 June 2015)	326 500

Allowance for doubtful debts (credit balance 30 June 2015)	1 500

In the past, the company's yearly bad debts expense had been estimated at 2% of net credit sales revenue. It was decided to compare the current method with an ageing of the accounts receivable method. The following analysis was obtained with respect to the accounts receivable:

		Balance	% estimated uncollectable
Accounts not yet due		$175 600	½
Accounts overdue:	10–30 days	61 000	2
	31–60 days	44 000	10
	61–120 days	25 400	25
	121 days and over	20 500	40
		$326 500	

Required

A. Prepare the journal entries to adjust the Allowance for Doubtful Debts at 30 June 2015 under:
   1. the net credit sales method
   2. the ageing of accounts receivable method.

B. Determine the balance in the Allowance for Doubtful Debts account under both methods.

C. Assume that the allowance account had a debit balance of $850 at 30 June 2014. Show the journal entries to record the allowance for doubtful debts at 30 June 2015 under:
   1. the net credit sales method
   2. the ageing of accounts receivable method.

D. Using the journal entries from requirement C, determine the balance in the allowance account under both methods.

E. Explain, with reference to requirements B and D, why the two different methods result in different balances.

Problem 12.5 ACCOUNTS RECEIVABLE AND BILLS RECEIVABLE **LO 2**

Cathy Smythe, who trades as Cathy's Corner, uses the following journals in her business: general, cash receipts, cash payments, sales and purchases. The control account for the accounts receivable in the general ledger at 1 June 2015 (with posting references omitted) is summarised below:

Accounts Receivable Control

2015		2015	
1/6	116 380	9/6	7 436*
21/6	7 458	18/6	748
30/6	132 000	26/6	7 458
		30/6	96 800

*(Promissory note due 18/10)

Set out below are the only two subsidiary ledger accounts for receivables affected by general journal entries during June:

L. Jones

Date		Post Ref.	Debit	Credit	Balance
2015					
June	1				(748)
	8	S5	1 738		990
	18	J7		748	242

G. Lyons

Date		Post Ref.	Debit	Credit	Balance
2015					
June	1				7 436
	9	J7		7 436	—
	22	CP8	7 458		7 458
	26	J7		7 458	—

Required

A. State the posting references for the entries on 30 June in the Accounts Receivable Control account.
B. How could the credit balance in the account of Jones have arisen?
C. Determine what the total of the schedule of accounts receivable should be on 30 June.
D. What transaction would have led to the debit in the account of Lyons on 22 June?
E. Explain the transactions that would have led to the credit entries in the Accounts Receivable Control account on 9, 18 and 26 June.

Problem 12.6 DOUBTFUL DEBTS — NET CREDIT SALES AND AGEING METHODS LO 3

All transactions below relate to Biancardi Construction Ltd's uncollectable accounts for the financial year ended 30 June 2015. The company is registered for GST.

July	18	Wrote off the $572 account of F. Forrest as uncollectable.
Oct.	19	Re-established the account of K. Mears and recorded the collection of $1650 in full payment of his account, which had been written off previously.
Jan.	31	Received 40% of the $880 balance owed by B. Blanck and wrote off the remainder as uncollectable.
Feb.	16	Wrote off as bad the accounts of Denis Co. Ltd, $2530, and H. Howard, $3520.
March	16	Received 25% of the $1584 owed by JB Plumbers and wrote off the remainder as a bad debt.
April	16	Received $1067 from G. Digby in full payment of his account, which had been written off earlier as uncollectable.
June	30	Estimated bad debts expense for the year to be 1.5% of net credit sales of $631 000 (excluding GST).

The Accounts Receivable account had a balance at 30 June 2015 of $189 200, and the beginning (1 July 2014) balance in the Allowance for Doubtful Debts account was $9300.

Required

A. Prepare journal entries for each of the transactions.

B. Determine (1) the balance in the Allowance for Doubtful Debts account after the 30 June adjustment, and (2) the expected collectable amount of the accounts receivable as at 30 June.

C. Assume that instead of basing the allowance for doubtful debts on net credit sales, the estimate of uncollectable accounts is based on an ageing of accounts receivable and that $11 630 of the accounts receivable as at 30 June was estimated to be uncollectable. Determine:

  1. the general journal entry to bring the allowance account to the desired balance
  2. the expected collectable amount of the accounts receivable as at 30 June.

Problem 12.7 AGEING OF ACCOUNTS RECEIVABLE AND ADJUSTMENT OF ALLOWANCE **LO 3**

The accountant for Debbie's Dance Ltd prepared an ageing analysis of accounts receivable balances at 30 June 2015 as set out below. The percentages of each age group are based on past experience and are shown next to the aged balances. The company is registered for GST.

The allowance method is used to account for bad debts. On 30 June 2015 the credit balance of the Allowance for Doubtful Debts account is $3150 before any adjustments.

Age	**Estimated uncollectable (%)**	**Balance**
Current	0.5	$ 346 500
30–60 days overdue	2.0	99 000
61–120 days overdue	10.0	24 750
121 days to 6 months overdue	20.0	29 700
Over 6 months overdue	40.0	19 800
		$ 519 790

Required

A. Prepare the general journal adjusting entry to record estimated bad debts on 30 June 2015.

B. Give the entry to write off the account of S. Riley in August 2015, $1650.

Problem 12.8 BILLS RECEIVABLE, INCLUDING DISCOUNTING **LO 5**

Norwood Ltd received the following bills during the last 3 months of the financial year ended 30 June.

Date of bill	Amount of debt	Term of bill	Interest rate	Date of discount	Discount rate
1. April 1	$10 000	60 days	8%	May 1	10%
2. May 2	16 000	90 days	9%	June 11	11%
3. May 15	13 000	60 days	10%		
4. June 1	8 500	60 days	9%		
5. June 8	11 000	60 days	8%	June 24	10%
6. June 16	14 000	60 days	10%		

Required

A. Determine the due date and the maturity value for each bill; for bills 1, 2 and 5, determine also the discount period, the amount of discount, and the net proceeds.

B. Prepare journal entries to record the discounting of bills 1, 2 and 5 at the bank.

C. Prepare a general journal entry to accrue interest on bills 3, 4 and 6 on 30 June.

D. Prepare general journal entries to record the collection of bills 3, 4 and 6 in the next financial year.

Problem 12.9 USE OF CREDIT CARDS **LO 4**

Barrett's Boots Ltd has traditionally made sales for cash and on credit only. Management has resisted accepting credit cards on the basis that the business would lose on average a credit card fee of 4% of the sale value, adversely affecting already low profit margins.

Management has become concerned at negative customer reaction to the policy of not accepting credit cards and, indeed, suspects that sales are being lost because of this policy.

Management has asked you to provide a table showing credit and collection costs in dollars and as a percentage of net sales associated with credit sales and maintaining accounts receivable. The following data have been provided for the two most recent years which are expected to be representative of future operations.

	2015	2016
Net credit sales	$720 000	$600 000
Part-time salary — accounts receivable clerk	4 350	4 350
Collection agency fees for slow payers	3 250	3 200

Other collection and credit expenses expressed as percentages of net sales are:

Bad debts	1.5%
Invoicing and mailing costs	0.6%
Credit evaluation of new customers	0.14%

It is also estimated that the average accounts receivable balance during the year is approximately 6% of net credit sales, and that surplus cash can be invested at 14% p.a. It is also known that credit card companies pay on average 96% of the sale within 4 business days of the date of sale.

Required

A. Prepare a table setting out for each year all of the credit and collection expenses both in dollars and as a percentage of net sales.
B. Estimate, as a percentage of net credit sales, the cost of the interest forgone in carrying accounts receivable. (Ignore the 4-day gap for the purpose of calculation.)
C. Explain how credit cards are a means of disposing of accounts receivable.

Problem 12.10 MONITORING CASH COLLECTION

LO 4

The following information has been extracted from the annual reports of Lilydale Ltd and Monbulk Ltd.

	Lilydale Ltd	Monbulk Ltd
Sales (net credit) revenue for year	$2 950 300	$2 204 300
Allowance for Doubtful Debts, 1/7/14	17 100	27 100
Allowance for Doubtful Debts, 30/6/15	19 780	28 100
Accounts receivable (gross) 1/7/14	722 650	368 000
Accounts receivable (gross) 30/6/15	485 800	384 200

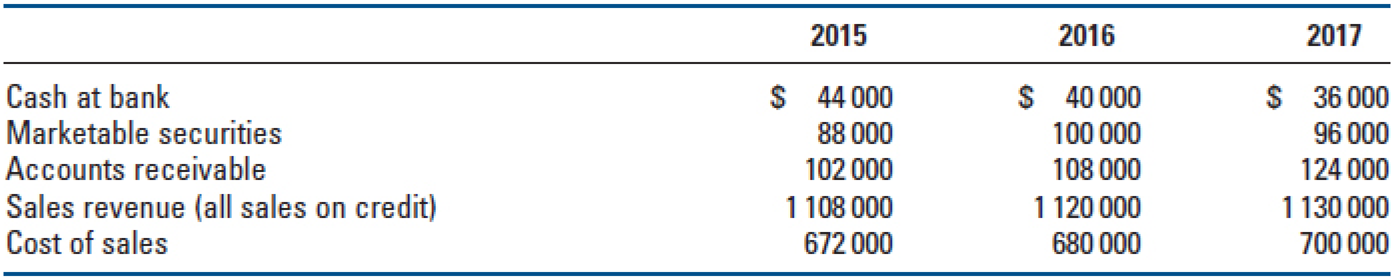
Required

A. Calculate the receivables turnover ratio and average collection period for both companies. Comment on the difference in their collection experiences.
B. Compare the success or otherwise of their cash collection policies, given that the average receivables turnover for the industry in which the companies operate is 7. Credit terms for both companies are

2/10, n/30.

Problem 12.11 MONITORING CASH COLLECTION LO 4

The information below has been extracted from the financial statements of Crystal Craft Ltd.



	2015	2016	2017
Cash at bank	$ 44 000	$ 40 000	$ 36 000
Marketable securities	88 000	100 000	96 000
Accounts receivable	102 000	108 000	124 000
Sales revenue (all sales on credit)	1 108 000	1 120 000	1 130 000
Cost of sales	672 000	680 000	700 000

Required

A. Calculate the following for years 2016 and 2017:

  1. receivables turnover ratio
  2. average collection period of accounts receivable.

B. Using your calculations in requirement A, comment on the credit collection policies of the company. What additional information could be used to make an analysis of cash collection policies more meaningful?

DECISION ANALYSIS

Credit cards or not?

Felicity's Flowers Pty Ltd has been operating profitably for a number of years and has always sold merchandise on the basis of cash or credit. Felicity, the proprietor, had always resisted accepting credit cards as payment, as she has always had a dislike for them as a result of family upbringing where she was constantly reminded of the dangers of using personal credit cards. Although profits of the business have been satisfactory, they are declining, and it is becoming clear that sales are being lost because credit card facilities are not available to potential customers. Major competitors have been accepting credit cards for many years and appear to have an expanding customer base. Felicity is also mindful of the costs that are associated with offering credit card facilities.

Daniel Wiseman, an accountant and personal friend, recently pointed out to Felicity that selling goods on credit also incurred considerable costs which were often overlooked. Examples of such costs include credit assessment of potential customers, invoicing and record keeping, bad debts, and credit collection costs. He pointed out that offering credit card facilities in some cases could be more financially attractive than selling on credit. He volunteered to prepare data to enable a comparative analysis to be made of the costs of selling on credit and carrying accounts receivable and the costs of accepting credit cards.

After analysing the past 3 years of accounting records, Daniel produced the following figures based on a 3-year average of recorded results:

Annual credit sales	$1 350 000
Cost of accounting for accounts receivable (part-time clerk)	19 000
Collection costs paid to agencies	8 000

Other direct financial costs identified and expressed as a percentage of credit sales were:

Invoicing and collection costs	0.54%

Credit assessment of potential customers	0.10%
Bad debts	1.25%

Daniel also established that credit card issuers impose, on average, a charge of 4% of credit sales and the cash is received approximately 5 days from the date of sale. The average monthly accounts receivable balance is $40 000, and any surplus cash arising from the use of credit cards (ignoring the 5 days delay period) can be invested at 7% p.a.

Required

A. Prepare a table setting out the average credit/collection costs both in total dollars and a percentage of net credit sales.
B. Prepare an analysis to show the cost of interest earnings forgone as a result of not being able to invest money which would become available if credit cards were introduced.
C. Prepare a table setting out the total cost in dollars and in percentage of credit sales of credit and collection costs of carrying accounts receivable.
D. Based on the analyses above, would you recommend that Felicity’s Flowers Pty Ltd offers credit card facilities to its customers rather than selling on credit? Would your recommendation be the same if non-financial qualitative factors were considered? Explain.

CRITICAL THINKING

Methods of calculating doubtful debts

Two members of the management staff of Practical Products Ltd were debating the merits of the percentage of net credit sales method and the ageing of debtors method for determining the allowance for doubtful debts at year-end. Lance held the view that ‘during times of economic stability when credit sales and receivables do not fluctuate, the percentage of net sales method is to be preferred due to its simplicity of calculation’. He did concede that perhaps the ageing method could be better during periods when the business was experiencing rapid growth in credit sales.

Phillip, on the other hand, argued that ‘the ageing method was the better choice in all economic conditions whether credit sales and receivables were steady, rising, or falling’, and maintained that simplicity of calculation should not be the basis for selecting a particular method.

Required

A. Do you agree with Lance that the percentage of net credit sales method should be preferred because of its simplicity of calculation? Explain why or why not.
B. Why do you think that Lance concedes that the ageing method might be better in times when credit sales and receivables are increasing? Explain.
C. Is there any validity in Phillip’s argument that the ageing method would be better in all economic conditions (stable/increasing/decreasing credit sales)? Explain your stance.
D. Does the fact that the percentage of net credit sales method is referred to as the income statement method and the ageing of receivables as the balance sheet method have any relevance in the discussion between Lance and Phillip?

COMMUNICATION AND LEADERSHIP

Monitoring cash collections

Divide into groups and, under the guidance of a group leader, compare and contrast the credit policies and methods of monitoring cash collections appropriate for the following types of businesses:

1. a large hotel serving liquor and meals, together with the provision of motel-style accommodation to the travelling public
2. a relatively large manufacturer of leisure footwear, supplying shoes to a large number of small independent footwear retailers operating mainly through large suburban shopping centres. There are a

number of similar manufacturers supplying footwear in a very competitive market.

Required

After discussion as outlined above, each group should develop a written plan for managing the receivables appropriate for each of the above businesses.

ETHICS AND GOVERNANCE

Blenheim Instruments Ltd and bad debts

Jenny Pike, assistant accountant for Blenheim Instruments Ltd, was finalising the balance sheet of the company as at 30 June 2015 with the accountant of the business, Russell Bayer. Although both agreed that everything appeared to be in order, Jenny had noticed that a large loan had been taken out by the company with ABB Bank and that, as part of the loan agreement, Blenheim Instruments Ltd was to maintain a ratio of current assets (less inventories) to current liabilities of at least 1.25:1. She was concerned that the company would not be able to maintain this ratio given the fact that she had just learned that two of the company's largest customers had gone into liquidation and there was every likelihood that the company would recover no more than 10% of the debts owing. The current allowance for doubtful debts was grossly inadequate and thus the accounts receivable was overstated.

The relevant figures prepared for the balance sheet showed current assets (less inventories) standing at $1 250 000, and current liabilities stood at $1 000 000. Jenny raised her concerns with Russell Bayer about the overstatement of accounts receivable and not being able to maintain the desired minimum ratio for the purpose of the loan agreement, if the accounts receivable figure was updated. Russell replied: 'Yes, I can appreciate your concerns. However, we don't know how much will be recovered from the liquidated companies, so let's leave things the way they are. The bank wants only the 30 June figures and, as it is, the ratio will be okay as far as the bank is concerned.' Russell thought about the problem a little further and then explained: 'We won't have to write off the additional bad debts until next year when they occur and are known with certainty, and by then things will have picked up. I am sure the directors of the company will agree with me, and be happy to leave the accounts as they are, so there is no need for you to worry any more.'

Required

A. Identify the stakeholders involved in this situation.
B. What are the main ethical issues involved?
C. What actions are available to Jenny to resolve the dilemma she faces?
D. What would you do if you were Jenny?

FINANCIAL ANALYSIS

Refer to the latest financial report of Wesfarmers Ltd on its web site: www.wesfarmers.com.au and answer the following questions using the consolidated balance sheet and notes to the consolidated financial statements.

1. Have the receivables (current) of Wesfarmers Ltd increased or decreased over the year? By how much? Is the figure at the end of the year gross or net receivables? What was the balance of the allowance (provision) for doubtful debts (allowance for impairment of receivables) on the same date? What classes of receivables are recorded under the classification Receivables (current)? How is the GST in the receivables reported?
2. Compare current assets and current liabilities as shown on the balance sheet and comment on the short-term solvency of the company.
3. What items of receivables are included under the classification Other Assets (current)? Does Wesfarmers Ltd allow for doubtful debts on any of these receivables?
4. What is the major type of receivables (non-current) held by Wesfarmers Ltd at the end of the year?
5. What was the amount of bad debts actually written off during the financial year? How does this compare with the previous year?

CHAPTER 13

Inventories

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- how to record the sales transactions (including returns) of a retail business (pp. 238–44)
- how to determine cost of sales under the periodic and perpetual inventory systems (pp. 244–56)
- the differences in shipping terms (p. 244)
- how to prepare an income statement for a retail business (pp. 260–1)
- ratios used in analysing and controlling inventory (pp. 262–4)
- the bodies involved in the regulation of accounting standards (pp. 430–7).

Learning Objectives

After studying this chapter you should be able to:

1 describe how an entity determines its inventory on hand by way of a physical stocktake, and how the cost of inventory is determined (pp. 558–60)

2 determine cost of sales under alternative cost flow assumptions for the periodic inventory system (pp. 560–7)

3 determine the valuation of ending inventory and cost of sales under alternative cost flow assumptions for the perpetual inventory system (pp. 567–70)

4 compare the results of cost flow assumptions for the periodic and perpetual inventory systems (pp. 570–2)

5 apply the lower of cost and net realisable value rule, required by accounting standards, for the valuation of inventory (pp. 572–4)

6 record sales returns and purchases returns under the perpetual inventory system with different cost flow assumptions (pp. 574–6)

7 describe the effects on financial statements of errors made in determining inventory (pp. 576–8)

8 estimate the value for inventories using the retail inventory and gross profit methods (pp. 578–81)

9 present information on inventories in financial statements (p. 582)

10 discuss the effects of different cost flow assumptions on ratios used by decision makers (pp. 582–3).

Target on mission to move a mountain

Discount department store Target has drafted in the same company that overhauled Coles' supply chain systems to help it disentangle a $100 million inventory overhang that slashed earnings by 44 per cent in the last financial year.

Target boss Stuart Machin, who was brought in from his former job as head of store operations at Coles in April, has said the business's existing systems are so ineffective that he can't accurately judge how badly it is overstocked after an excess of buying and an unseasonably warm winter left it with mountains of unsold merchandise.

Hiring US supply chain management specialist Manhattan Associates, whose systems have been used by Coles for the past nine years, was one of his first decisions on arriving at Target.

'Target is working with Manhattan Associates to implement a new warehouse management system that will give us enhanced visibility of stock through our supply chain, and a smoother and more transparent flow of stock into our stores,' a Target spokesman said.

Mr Machin said last month he was still struggling to clear the excess stock position he inherited. He has said the need for clearance sales would affect margins this financial year.

Manhattan chief executive Eddie Capel said his company typically took nine to 18 months to overhaul a major retailer's supply chain using its own systems.

'The two big dials that retailers are always trying to adjust are inventory and customer service,' he said.

'We're focused on trying to help them get that equation balanced so they can have a minimum level of inventory but still maximise their customer service by always having stock available.'

Mr Capel said Manhattan's software also forecast future demand for products based on the patterns of previous years and planned promotional schedules.

'It's a very sophisticated mathematical model of demand and promotion shaping, and it's not a perfect crystal ball but it's way better than licking your thumb and putting it up in the air,' he said.

'If you get it right, that's the balance between getting the right inventory and the right level of service, but you still need to have it in the right place and get it there costeffectively.'

Manhattan, whose clients also include Corporate Express, Cotton On and Grays Online, generally could allow retailers to cut inventory levels by 6–25 per cent, reducing working capital and boosting margins by reducing the need for clearance sales, he said.

Mr Capel said it was crucial for any retailer seeking to sell online to have full visibility of all their stock, particularly for click-and-collect shopping.

'People are more impatient than just two to three years ago, and bricks-and-mortar retailers can see themselves as under fire from the online guys, particularly when these new competitors can service your domestic customer from offshore quicker than you can,' he said.

'But there is an opportunity to fulfil orders directly from here in Australia or from Asia direct to consumers and build a fantastic global brand.'

The system also aggregated customer data across all sales platforms to better forecast demand, without the need for a loyalty card program.

Source: Speedy, B 2013, 'Target on mission to move a mountain', ***The Australian***, 30 October.

Chapter preview

In chapter 6, the term **inventory** was used to designate all goods and property owned by a retail business and held for future sale to its customers in the ordinary course of business. Two inventory systems, perpetual and periodic, were described and illustrated assuming that the cost per unit was the same for the beginning inventory and for purchases made during the period. However, in today's markets the prices of most goods change frequently. When prices change, the business entity is confronted with the problem of determining what portion of the total cost of goods available for sale should be assigned to ending inventory and what portion to cost of sales. In this chapter, we consider a number of alternative methods used to assign the total cost of goods to ending inventory and cost of sales when prices are changing.

We also discuss some additional issues relating to accounting for and control of inventory. For example, what valuation should be placed on inventories at the end of the reporting period? If inventory is readily saleable (as is the product described in the scene setter), can the entity value its inventory at selling price?

13.1 Determining the cost of inventory on hand

LO 1 Describe how an entity determines its inventory on hand by way of a physical stocktake, and how the cost of inventory is determined.

Performing a stocktake

When a **periodic inventory system** is used, the cost of inventory purchased during the period is recorded in the Purchases account, as we saw in chapter 6. Throughout the period, the balance in the Inventory account represents the cost of the inventory on hand at the beginning of the period. To determine the cost of the ending inventory, the units on hand at the end of the period must be counted and costed. The cost of ending inventory is then reported usually as a current asset in the balance sheet and is also deducted from the cost of goods available for sale in the income statement to determine the cost of sales.

When a **perpetual inventory system** is used (manual or computerised), although the inventory on hand and the cost of sales balances are available in the accounts at all times, a physical stocktake is still done at least once a year to verify the balances recorded in the accounting records. In this way, any discrepancies from loss, theft or deterioration can be accounted for.

A stocktake must be carefully planned, and the procedure supervised to ensure that all units owned by the business entity are properly counted. Although the specific details vary, the following is a typical approach in a manual system.

1. An inventory ticket for each type of item in stock is prenumbered and issued to each department. A space is provided on the ticket to record a description or code number of the item, the number of units counted, the initials of the person making the count and the initials of the person verifying the count.
2. An employee counts the units of each item and enters on the inventory ticket the type of item counted and the number of units on hand, plus initials to identify the person performing the count. The inventory ticket is then attached to the units counted. Because conducting the physical count is often difficult, this step is often performed outside normal trading hours, or the business may close for a short time for stocktake.
3. A supervisor recounts a sufficient number of items to ensure the accuracy of the recorded count and initials the inventory ticket.
4. A supervisor examines the inventory in each department to be sure that an inventory ticket has been attached to all like items. Any group of like items without a ticket attached has obviously not been counted.
5. The inventory tickets are collected and forwarded to the accounting department, where the prenumbered tickets are all accounted for. The information on the inventory tickets is summarised on an inventory summary sheet.
6. The unit cost of each type of item in stock is determined from purchase invoices or other supplementary records.
7. The number of units of each type of item is multiplied by their cost and added together to calculate the total ending inventory value.

In a computerised inventory system, determining the cost of inventory is greatly simplified. Once the physical quantities are entered into the computer, the system automatically applies unit cost data to the quantities and produces the total cost of inventory and any other inventory analyses required. A computerised inventory system offers a high degree of accuracy and speed of calculation. Although computerised inventory systems were used in the past only by larger businesses with large inventories, the reduced cost of computers and the availability of inventory software for personal desktop computers have placed computerised inventory management within the reach of most small businesses.

In variety stores and supermarkets, the use of scanning devices with cash registers at checkouts has permitted fast and accurate entry of cost of sales data into the computerised perpetual inventory system, enabling immediate updating of inventory records for goods sold. In addition, such systems enable immediate recording of sales revenue information in the accounts, and customers' bank accounts also may be debited for the amounts owed when an EFTPOS system is in operation.

Transfer of ownership

During a stocktake, care must be taken to ensure that all goods that represent inventory assets of the business entity on the date of the stocktake are included in the ending inventory, regardless of where the inventory is located. To qualify as an asset of the business, the inventory need only be ***controlled*** by the business and not necessarily owned. Nevertheless, in most cases, control is synonymous with ownership. Transfer of ownership normally depends on the terms of the shipment. Recall from chapter 6 that when goods are sold **EXW**, freight is paid by the buyer and title ordinarily transfers when the goods are delivered to the carrier at the seller's warehouse. If the terms are **DDP**, the seller is responsible for paying the freight and title usually does not transfer until delivery is made to the buyer.

From an accounting point of view, at the time title to the goods transfers, the seller may record a sales transaction and the buyer a purchase of inventory. In practice, however, sales are normally recorded when shipment is made and purchases are recorded when the inventory is received irrespective of the shipping terms. To increase the accuracy of the financial statements at year-end, purchases and sales invoices for the last week or two of the current accounting period and for the first week or two of the next period should be reviewed to determine whether there were units in transit on the date of the stocktake that should be included with the units counted.

For example, goods purchased EXW and in transit at year-end should be recorded as a purchase and included in the physical count even though they were not on hand when the actual count was made. Although exclusion of this inventory will have no effect on profit (purchases, goods available for sale and ending inventory are all understated by an equal amount), total assets and total liabilities are understated if the purchase is not recorded. Similarly, goods sold DDP should be included in the seller's ending inventory if in transit at year-end since title to the goods has not transferred. The sale and related cost of sales are transactions to be recorded in the succeeding period.

In some cases, the seller may have received orders for goods but shipment may not have been made. In such situations, a sale is not recorded because the revenue has not been earned. However, an exception is made when an order for goods has been received and the goods are ready for shipment, but the buyer requests that the goods be held for later delivery. Such items should be excluded from the inventory of the seller and included in the inventory of the buyer. In still other cases, it may not be clear that title has transferred. The accountant must then use judgement and try to assess when the parties to the transaction intended to transfer the title.

Goods on consignment

Another problem sometimes encountered in conducting a stocktake is the treatment of goods held on **consignment**. A consignment is a selling arrangement whereby a business (the **consignor**) ships goods to a dealer or agent (the **consignee**) who agrees to sell the goods on behalf of the consignor for a commission. Although a transfer of goods has taken place, title to and control of the goods in this case remains with the consignor until the goods have been sold to a third party. Since title to the goods has not transferred, the shipment of consigned goods is not considered a sales/purchase transaction. Goods out on consignment are therefore part of the consignor's inventory even though physical possession of the goods is with the consignee. The goods are excluded from the inventory of the consignee since they remain under the control and ownership of the consignor.

The cost of inventory

Determination of the cost of inventory is governed by IAS 2/AASB 102 ***Inventories***. In IAS 2/AASB 102, inventories are defined as assets held for sale in the ordinary course of business, and include goods purchased by a retailer, or land and other property held for resale. Inventories also include goods produced within an entity, work in progress, and raw materials and supplies awaiting use in the production process. (Thus, stationery supplies are excluded from inventory unless they are used in the production process.) In order to determine the profit of an entity by recognising income and expenses in the appropriate period, it is usually necessary to carry forward the costs related to the acquisition of inventories until the inventories are sold or consumed in the production process. In historical cost accounting, the main basis for stating inventories held at the end of the reporting period is cost.

In IAS 2/AASB 102, 'cost' in relation to inventories means the sum of all direct and indirect costs — costs of purchase, costs of conversion, and other costs — incurred in bringing the merchandise to a saleable condition and to its existing location. In a retail business, this includes the purchase price, import duties and taxes (other than those subsequently recoverable from tax authorities, such as GST), transport, handling charges such as insurance on the goods while in transit, and other costs directly incurred in acquiring the goods and bringing them to their present location and condition. However, any trade discounts or rebates received must be deducted. Furthermore, as discussed in chapter 6, settlement discounts received on the purchase of inventory are normally deducted from cost of sales.

For a manufacturing business, the cost of inventories under IAS 2/AASB 102 also includes the cost of conversion, which comprises all costs directly related to the units of production. Hence, the costs of direct labour, plus a systematic allocation of the entity's fixed and variable factory overhead costs incurred in converting raw materials into finished goods, are included in the cost of conversion. However, the following costs are excluded from the cost of inventories:

- the ***abnormal*** cost of wasted materials, labour and overhead

- storage costs, unless those costs are necessary before a further production stage
- administrative overhead costs that do not contribute to bringing the inventories to their present location and condition
- selling costs.

When several types of inventory are acquired in one shipment, it is often difficult to allocate the incidental costs, such as transport and insurance, to individual items in order to obtain a unit cost. In addition, storage costs and costs relating to purchasing and receiving departments need to be allocated arbitrarily across inventory categories, and this may not produce enough benefits to justify the additional cost of making the allocation. Many inventory costs are thus expensed in the period incurred as a matter of convenience rather than added to the cost of inventory. As a result, often only the invoice price is used in calculating a unit cost of goods purchased in a retail business.

LEARNING CHECK

☐ A stocktake of inventory is performed at least once a year, and is conducted irrespective of the inventory system — periodic or perpetual — adopted.

☐ The different shipping terms, particularly EXW and DDP, have a bearing on who owns the inventory and therefore whether the inventory should be included in the stocktake.

☐ Goods held on consignment for others should not be included in the stocktake of the consignee.

☐ The cost of inventory on hand at the end of a period includes the cost of purchase, the cost of conversion and other costs needed to bring the inventory to its present location and condition ready for sale.

13.2 Assignment of cost to ending inventory and cost of sales — periodic system

LO 2 **Determine cost of sales under alternative cost flow assumptions for the periodic inventory system.**

In chapter 6, it was assumed that the unit cost of the beginning inventory and the unit cost of additional units acquired during the period were the same. As is more often the case, however, units purchased at different dates have different unit costs. When this happens, the accountant must select the unit cost to determine cost of sales. The problem can be readily appreciated if it is related to an inventory of fluid in a container. For example, at the beginning of July the container held 10 litres that cost $10 per litre. Assume now that 12 litres were purchased at $11 per litre on 15 September and added to the container. If 8 litres are drawn off as a result of a sale on 20 September, the accountant is faced with a problem of measuring the cost of the 8 litres drawn from the container and the cost of the remaining 14 litres in the container at 20 September. Should the unit cost assigned to the litres removed and sold be $10, $11 or an average of the two? Since it is impossible to assign a specific cost to litres withdrawn, a cost assumption has to be made.

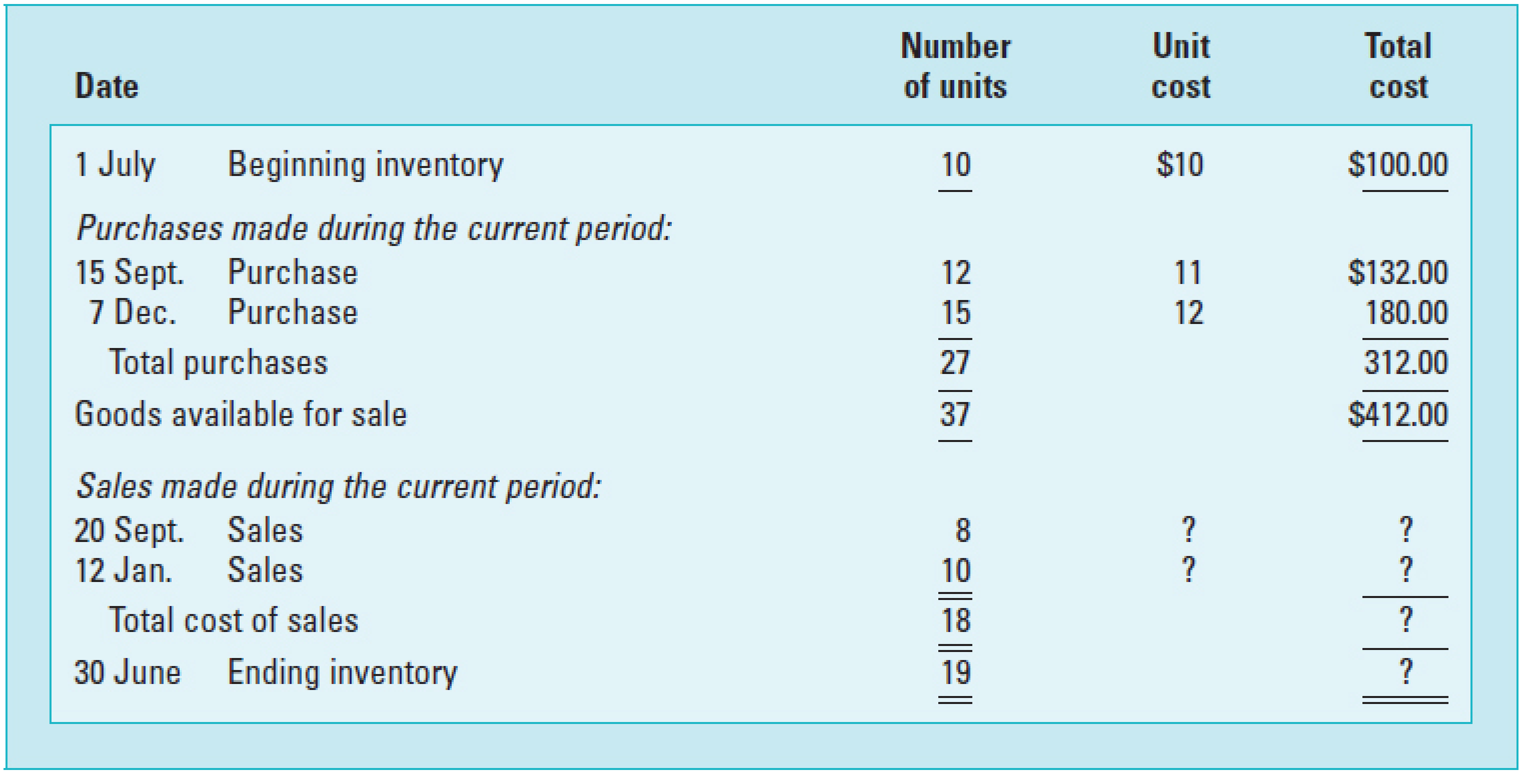
In order to measure the cost of sales expense, the allocation of total inventory cost between inventory and cost of sales must be based on some cost flow assumption. This is true whether a periodic or perpetual inventory system is being used. Several methods based on different cost assumptions have been suggested:

- specific identification
- first-in, first-out (FIFO)
- last-in, first-out (LIFO)
- average cost.

The terminology for the average cost method varies with the inventory system in use. The method is called the ***weighted average*** method when using a periodic system and the ***moving average*** method when using a perpetual system. When prices are changing, each method produces different ending inventory and cost of sales amounts. The cost flow assumption does not have to conform to the actual physical movement of goods. A business may rotate its inventory so that the oldest units are sold first. However, in determining the cost of units sold, the average cost of goods available for sale may be assigned to cost of sales.

To illustrate the effects of the inventory costing methods on the allocation of the total cost of goods available for sale to ending inventory and cost of sales, the inventory data in figure 13.1 for a single item are assumed for the accounting period. In figure 13.1, the problem is how to allocate the goods available for sale of $412 to ending inventory and cost of sales.

Figure 13.1 Inventory cost problem



Date		Number of units	Unit cost	Total cost
1 July	Beginning inventory	10	$10	$100.00
Purchases made during the current period:				
15 Sept.	Purchase	12	11	$132.00
7 Dec.	Purchase	15	12	180.00
	Total purchases	27		312.00
Goods available for sale		37		$412.00
Sales made during the current period:				
20 Sept.	Sales	8	?	?
12 Jan.	Sales	10	?	?
	Total cost of sales	18		?
30 June	Ending inventory	19		?

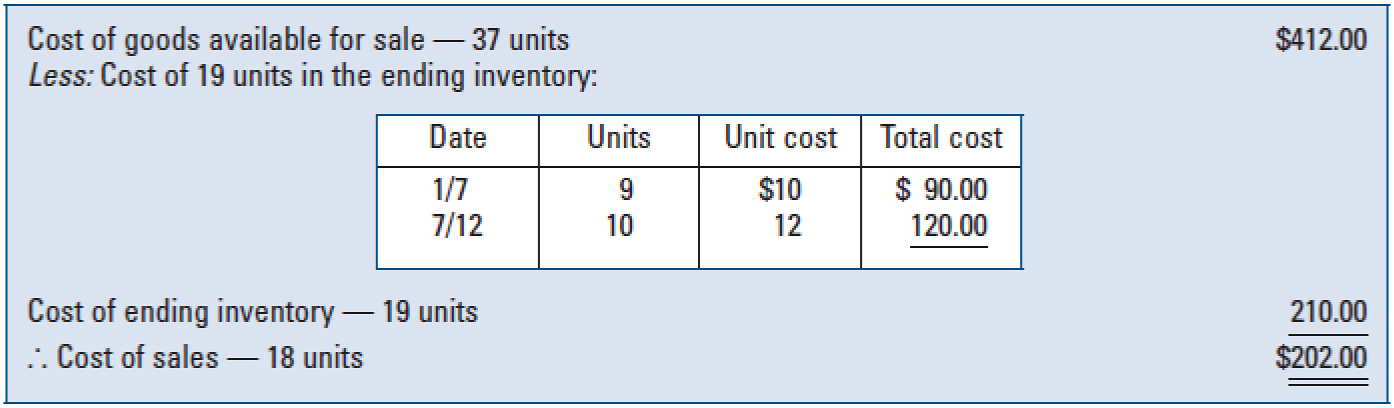
If a perpetual inventory system is in operation, the number of units purchased, sold and on hand is available from the inventory record. In a periodic inventory system, the 19 units on hand at 30 June must be determined by physical stocktake.

With a periodic inventory system, the number of units on hand at the end of the period must be counted and priced before the cost of goods available for sale of $412 can be allocated between the ending inventory and cost of sales. The portion of the total inventory cost assigned to the ending inventory depends on the cost flow assumption the entity adopts. Once the cost of the ending inventory is determined, the cost of sales is calculated by deducting the ending inventory cost from the cost of goods available for sale (beginning inventory plus purchases). Determination of the cost of sales is considered to be an important objective of accounting for inventory.

Specific identification method — periodic

The **specific identification** method requires each unit sold and each unit on hand to be identified with a specific purchase invoice. To do this, the entity must use some form of identification such as serial numbers, stock tags, or bar codes containing the cost recorded in some appropriate coding system, which are attached to the item. Obviously, this method is inappropriate where an entity sells high unit volumes with small unit prices, or liquids stored in large containers as discussed previously. Nevertheless, application of the specific identification method is a greater possibility when using a computerised inventory system, where the cost of each item may be identified in the bar code for that item. When the item is sold, the cost of that item is readily obtained from the computer's reading of the bar code.

To illustrate the specific identification method, assume that, after a stocktake, the 19 units in the ending inventory can be separately identified as 10 units from the 7 December purchase and 9 units from the beginning inventory. Costs are assigned as follows:



Cost of goods available for sale — 37 units	$412.00
Less: Cost of 19 units in the ending inventory:	

Date	Units	Unit cost	Total cost
1/7	9	$10	$ 90.00
7/12	10	12	120.00

Cost of ending inventory — 19 units	210.00
∴ Cost of sales — 18 units	$202.00

Although the cost of sales is a residual amount, the $202 figure can be verified as follows:

Cost of sales — 18 units	
1 unit from the beginning inventory at $10 per unit	$10.00
12 units from the 15 September purchase at $11 per unit	132.00
5 units from the 7 December purchase at $12 per unit	60.00
Total cost of sales	$202.00

Using the amounts calculated for the specific identification method, the cost allocation procedure is shown below:

$100 + 312 $412	Cost of beginning inventory + Cost of purchases	=	Cost of goods available for sale $412*	=	Cost of ending inventory + Cost of sales	$210 + 202 $412

*Allocation of the cost of goods available for sale to cost of ending inventory and cost of sales varies depending on the cost flow assumption used.

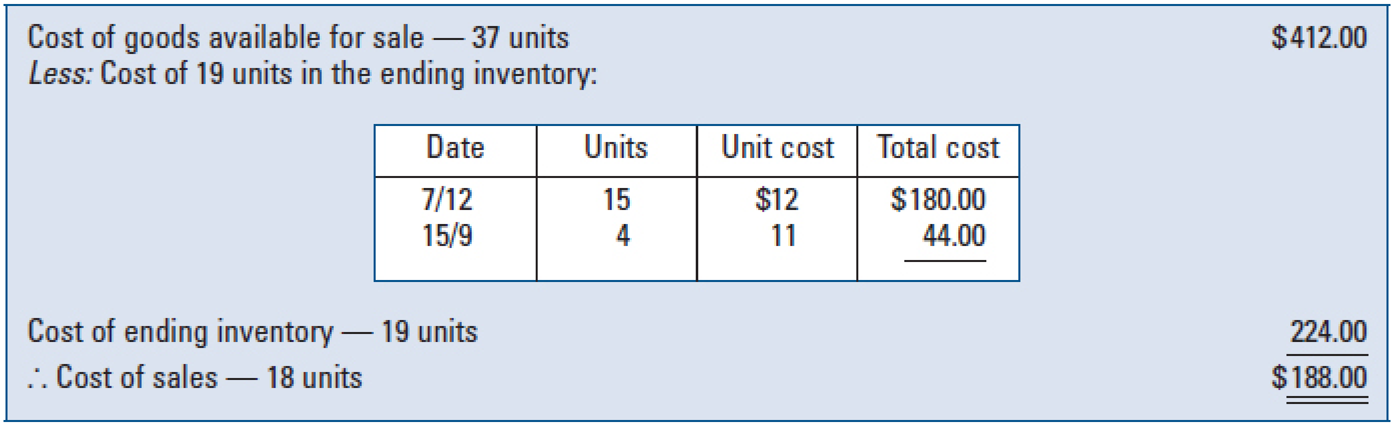
Under the periodic inventory system, the ending inventory of $210 is reported as a current asset in the balance sheet and as a deduction from cost of goods available for sale in the income statement. As shown in chapter 6, these amounts may be entered in the ledger accounts as part of the closing process. Recall that, in one closing entry, inventory is credited for $100 to remove the beginning inventory balance from the account, on the assumption that it has been sold, and transfer it to the Profit or Loss Summary account. In a second closing entry, inventory is debited for $210 to record the ending inventory, to ensure that inventory will be recorded as a current asset in the financial statements. These procedures are the same for the other three costing methods that follow, but the amounts vary with the cost flow assumption adopted.

First-in, first-out (FIFO) method — periodic

The **FIFO** method of determining the cost of sales is based on the ***assumption*** that the cost of the first units acquired is the cost of the first units sold. Therefore, the cost of the units on hand is

assumed to be the cost of the most recent purchases. Once again, this is a cost flow assumption and ***need not represent the actual physical movement of goods***. It should be emphasised that the name of the inventory method, in this case FIFO, refers to the flow of costs and the determination of cost of sales. That is, under FIFO, the cost of sales is assumed to consist of the cost of the ***first units*** purchased, and the ending inventory cost is assumed to consist of the cost of the ***last units*** purchased.

In the periodic inventory system, the ending inventory is generally calculated first after a stocktake and subtracted from the cost of goods available for sale to calculate the cost of sales as follows:



Cost of goods available for sale — 37 units	$412.00
Less: Cost of 19 units in the ending inventory:	

Date	Units	Unit cost	Total cost
7/12	15	$12	$180.00
15/9	4	11	44.00

Cost of ending inventory — 19 units	224.00
∴ Cost of sales — 18 units	$188.00

Note that the 19 units in the ending inventory are assumed to represent the cost of the last two purchases. In a periodic inventory system, the cost of sales is a residual amount, but in this simplified example it can be verified as follows:

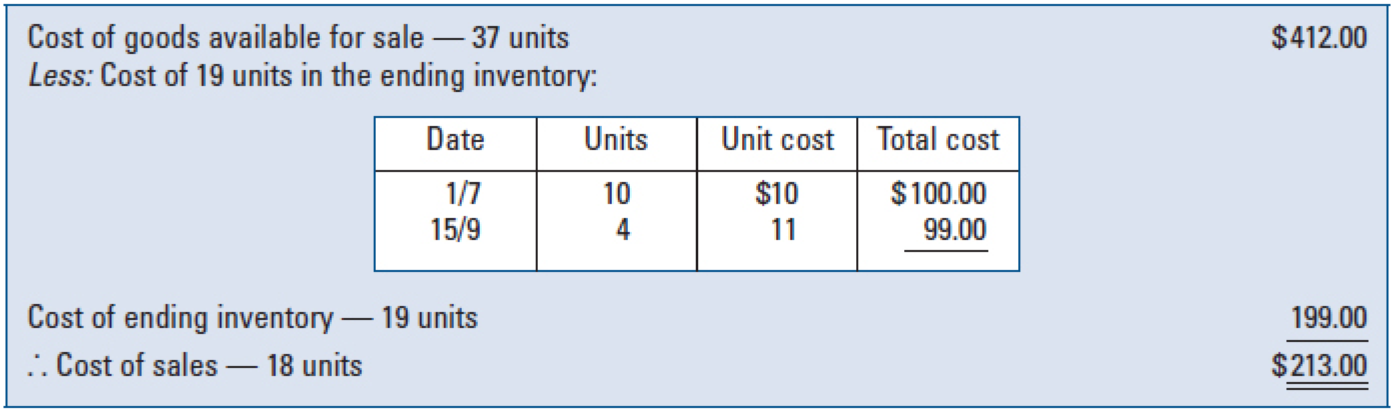
Cost of sales — 18 units

10 unit from the beginning inventory at $10 per unit	$100.00
8 units from the 15 September purchase at $11 per unit	88.00
Total cost of sales	$188.00

The cost of the 18 units sold in this period consists of the cost of the beginning inventory and a portion of the cost of the first purchase made on 15 September. The other four units from the 15 September purchase are assumed to be still on hand.

Last-in, first-out (LIFO) method — periodic

Under the **LIFO** method, the cost of ***last units*** purchased is assumed to be the cost of first units sold. Consequently, the costs of the most recent purchases are transferred to cost of sales. The cost of the ending inventory is determined by the cost of the ***earliest*** purchases. The cost allocation is:



Cost of goods available for sale — 37 units	$412.00
Less: Cost of 19 units in the ending inventory:	

Date	Units	Unit cost	Total cost
1/7	10	$10	$100.00
15/9	4	11	99.00

Cost of ending inventory — 19 units	199.00
∴ Cost of sales — 18 units	$213.00

The cost of sales can be verified as follows:

Cost of sales — 18 units

15 units from the 7 December purchase at $12 per unit	$180.00
3 units from the 15 September purchase at $11 per unit	33.00
Total cost of sales	$213.00

As with the FIFO method, the LIFO method ***may have nothing to do with the actual physical flow of the merchandise***. It merely assumes a ***cost*** flow.

When the LIFO method is used with a periodic inventory system, no attempt is made after the stocktake to compare the dates of sales with those of purchases. Units sold during the period are identified with the most recent purchases. In other words, it is possible to expense the cost of units sold even though they were not on hand at the time of sale. For example, if a purchase had been made after 12 January, the date of the last sale, the costs of those units would be assumed to flow into cost of sales in applying the LIFO method.

Weighted average method — periodic

Under the **weighted average** method, an **average cost** per unit is calculated by dividing the total cost of goods available for sale, including the cost of the beginning inventory and all net purchases, by the total number of units available for sale. This weighted average is then multiplied by the number of units available for sale to determine the cost of the ending inventory as shown below.

$$\frac{\text{Cost of goods available for sale}}{\text{Number of units available for sale}} = \frac{\$412.00}{37\text{ units}} = \$11.14\text{ per unit}$$

$$\text{Ending inventory: 19 units} \times \$11.14\text{ per unit} = \$211.66$$

The cost of sales is:

Cost of goods available for sale — 37 units	$412.00
Less: Cost of ending inventory — 19 units	211.66
Cost of sales — 18 units	$200.34

The cost assigned to cost of sales is confirmed as follows:

$$18\text{ units} \times \$11.14\text{ per unit} = \$200.52$$

(Difference is due to rounding the unit cost.)

The use of this method results in all units sold and on hand being costed at the average of $11.14 per unit.

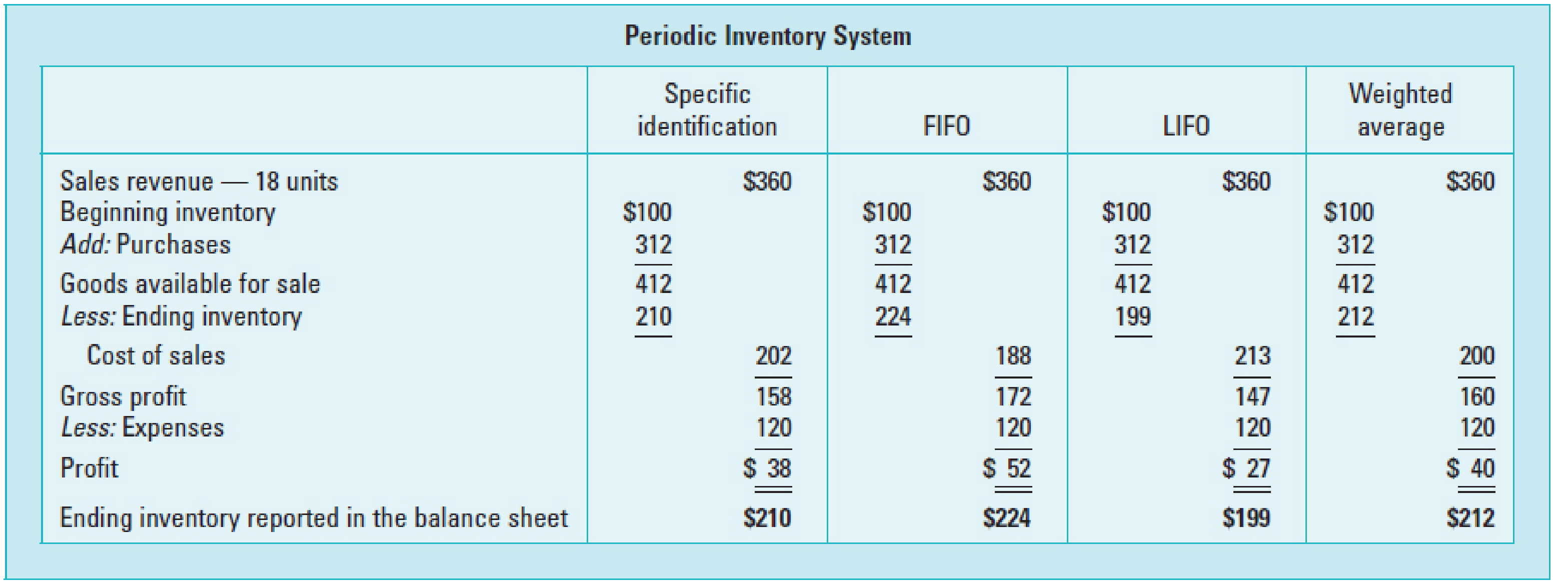
Comparison of costing methods

In the preceding sections, the procedural aspects of each costing method were illustrated using a periodic inventory system. Let us now examine the justifications, features and disadvantages of each method. In doing so, it is helpful to compare the effects of the methods on the business's financial statements. The results obtained in applying the methods in the previous example are summarised in figure 13.2. It is assumed that the 18 units were sold for $360, and all other expenses were $120. The sales and other expenses are the same in all cases because the inventory method used does not affect these income statement items. The beginning inventory in each case is assumed to be 10 units costing $100. In the next period, the beginning inventory value will vary depending on the costing method selected and will be equal to the ending inventory calculated in the current period.

Note that the calculations in figure 13.2 are based on the assumption that the unit cost increased steadily from $10 to $12 during the period. If the unit cost had not changed during the period, cost of sales, profit and ending inventory values would be the same for all four methods. When costs change during a period, the costing method selected can have a significant effect on the entity's reported assets and profit figures. Even in our simple example of increasing prices and only one inventory item held for sale, FIFO profit was almost twice as much as LIFO profit.

The absolute difference between the methods is greater if the volume of purchases and sales and the variety of individual items held for sale are increased. However, keep in mind that all methods assume that inventory is valued at cost. Although cost of sales and profit may vary between accounting periods, the total cost of sales and total profit reported over the life of the entity are the same for all methods since only the actual cost incurred for inventory can be expensed over the long term.

Figure 13.2 Comparison of costing methods — periodic inventory system



Periodic Inventory System

	Specific identification		FIFO		LIFO		Weighted average	
Sales revenue — 18 units		$360		$360		$360		$360
Beginning inventory	$100		$100		$100		$100	
Add: Purchases	312		312		312		312	
Goods available for sale	412		412		412		412	
Less: Ending inventory	210		224		199		212	
Cost of sales		202		188		213		200
Gross profit		158		172		147		160
Less: Expenses		120		120		120		120
Profit		$ 38		$ 52		$ 27		$ 40
Ending inventory reported in the balance sheet		$210		$224		$199		$212

Specific identification

Under the specific identification method, when a sale is made the item sold is identified and the cost of that item is expensed against revenues. Thus, the method is based on the actual physical flow of goods. For most entities, this method is not practical and is too costly to apply. Its use is limited mainly to businesses that sell easily identified items that are not ordinarily interchangeable and with a high unit cost (jewellery stores, for example) or to businesses with sophisticated computer-based costing systems. Another disadvantage of the method is that if the inventory units are identical and have different costs, it is possible for management to manipulate profit by choosing to sell a unit with a low or high cost.

First-in, first-out (FIFO)

The FIFO method is widely used because it is easy to apply. It does not permit manipulation of profit, since management is not free to pick the cost of a certain item to be expensed against revenue, but must expense the oldest unit cost available for sale. During periods of consistently rising unit costs, this method results in reporting a lower cost of sales and higher profit than the LIFO and weighted average methods (see figure 13.2). In the balance sheet, the ending inventory reflects the higher cost of the most recent purchases, which could be seen as a more realistic measure of the current value of the inventory than is provided by the other methods. On the other hand, during a period of declining unit cost, FIFO produces the highest cost of sales, the lowest profit and the lowest ending inventory values.

Many accountants agree that using FIFO during periods of consistently rising prices could be seen as resulting in an overstatement of profit. To illustrate this point, consider the data used in our previous illustration.

1 July	Beginning inventory	10 units @ $10
15 September	Purchases	12 units @ $11
20 September	Sales	8 units @ $20
7 December	Purchases	15 units @ $12
12 January	Sales	10 units @ $20

On 20 September, the business sold 8 units for $20 per unit. Under FIFO, $10 per unit is charged to cost of sales, which resulted in a gross profit of $10 per unit. However, these units were replaced on 7 December with units costing $12. Therefore, some accountants have argued that $2 of the gross profit is used to replace the units sold and only $8 represents the 'real' gross profit to the business. Inclusion of the $2 in gross profit is considered misleading because it cannot be distributed to the owners or reinvested in other aspects of the business without reducing the ability to replace units sold. For this reason, it is sometimes called 'phantom profit' or 'illusory profit'.

The same line of reasoning applies to the units sold on 12 January, which, if prices continue to rise, must be replaced with higher cost units.

Last-in, first-out (LIFO)

The basic assumption of the LIFO method is that the business must maintain a certain level of inventory to operate. When inventory is sold, it must be replaced at its current cost. Profit is not considered earned unless the sales price exceeds the cost to replace the units sold. It is often argued that LIFO provides a better measure of profit by expensing the more recent costs with current revenues. Since prices have generally moved upwards, the effect of this method is to produce a higher cost of sales and a lower profit than the other methods (see figure 13.2). However, balance sheet values soon become outdated because the oldest unit costs remain in the inventory. This creates some problems in evaluating the working capital position of an entity. Also, if there is a reduction in the inventory below its normal quantity, old costs are expensed against current income, which distorts profit in the year of the inventory liquidation. Another disadvantage of LIFO is that the possibility exists for management to manipulate profit by buying, or not buying, goods at the end of the year.

Weighted average

The average cost method is usually justified because it is simple to apply and is not subject to profit manipulation as are some of the other methods. In applying this method, the average unit cost is affected by the units and cost in the beginning inventory and all purchases made during the year. As a result, cost of sales, profit and ending inventory amounts reported under this method are between the extremes produced by FIFO and LIFO whether prices are rising or falling. Thus, the use of this method tends to smooth out profit and inventory values with neither the cost of sales nor the ending inventory reported at current values. This method is sometimes used when the units involved are homogeneous in nature and tend to be mixed together. Examples are grain in a silo or petrol in a storage tank.

Which method to select?

The selection of a cost method to use for a particular type of inventory depends on many factors such as the effect each method has on the entity's financial statements, income tax laws, information needs of management and statement users, the clerical cost of applying a costing method, and requirements of accounting standards. In practice, more than one of the methods may be considered appropriate in accounting for the same type of inventory. That is, accounting standards do not prescribe the use of a specific costing method as being 'best' for a particular set of inventory conditions. It is up to management and the accountant to decide which method provides the most useful information to statement users. Nevertheless, the standard insists that the same cost formula should be used for all inventories having a similar nature and use to the entity.

Under IAS 2/AASB 102, if an entity is required to prepare general purpose financial statements, some costing methods are acceptable and some are not. According to the standard, costs should be assigned by the specific identification method for goods not ordinarily interchangeable or goods produced and segregated for specific projects. For all other inventories, only the FIFO method or weighted average cost method is acceptable. The standard ignores, and therefore rejects, the use of the LIFO method, but no reasons are given in the standard as to why LIFO is not included as an acceptable inventory method.

Consistency in using a costing method

The costing method selected can have a significant impact on the entity's reported profit and asset figures. Thus, the method used to assign cost to inventory and cost of sales should be disclosed in general purpose financial statements. IAS 2/AASB 102 specifically requires this.

Once a costing method has been selected, management cannot indiscriminately switch to another. When alternative accounting methods or procedures are considered acceptable in a given situation, consistency becomes an important consideration. If an entity was allowed to switch from one accounting method to another indiscriminately, the accounting data produced in different accounting periods would not be comparable.

The need for consistency does not completely rule out switching to an alternative acceptable method if the new method results in improved financial reporting. However, if a change is approved and made and has a material effect on the financial results, the nature of the change, the effect of the change on the financial statements and the reasons for the change must be disclosed fully in notes accompanying the financial statements (as required by IAS 8/AASB 108 ***Accounting Policies, Changes in Accounting Estimates and Errors***).

LEARNING CHECK

- ☐ Under a periodic inventory system, cost flow assumptions are needed in accounting for inventory because of the rise and/or fall in inventory cost prices during a reporting period.
- ☐ The different cost flow assumptions allowed by IAS 2/AASB 102 are FIFO, weighted/moving average, and specific identification. The standard does not permit the use of the LIFO costing method in general purpose financial statements.
- ☐ The impact on financial statements of inventory accounting under different cost flow assumptions is considerable in terms of the effect on profit and inventory balances.

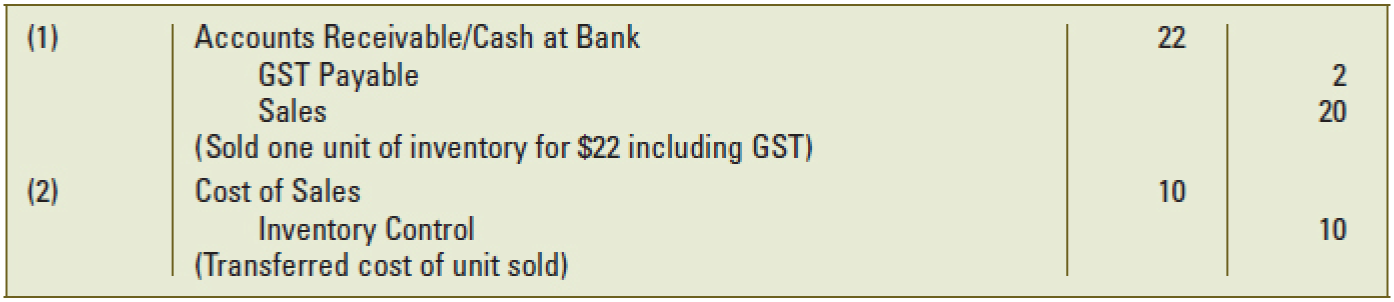
13.3 Costing methods in the perpetual inventory system

LO 3 Determine the valuation of ending inventory and cost of sales under alternative cost flow assumptions for the perpetual inventory system.

One or more of the costing methods discussed for the periodic inventory system may also be adopted if the entity uses a perpetual inventory system. Under the perpetual system, the cost of sales is determined at the time of sale rather than at the end of the period; as a result the two systems in some cases produce different profit and ending inventory figures. As noted before, with the availability of more versatile and less costly computers, most companies use the perpetual inventory system in their accounting records to achieve better inventory control.

Computerised accounting systems process transactions as closely as possible to the time the transaction takes place. The use of EFTPOS and electronic product scanners are examples where accounting and inventory records are updated at the time of sale, i.e. in ***real time***. Cash registers are, in reality, computer terminals. Such systems instantaneously update inventory records, check stock levels, initiate purchase orders, identify time, place and responsibility for a sale, verify selling price and automatically adjust for discounts or specials. Other functions can also be performed.

In a perpetual inventory system, an inventory card or inventory record is maintained for each item in stock. An Inventory Control account is kept in the general ledger and the inventory records collectively constitute the subsidiary ledger for inventory. To provide a continuous and current record of inventory transactions, the appropriate inventory card or record and the Inventory Control account are adjusted as purchases and sales transactions occur. Inventory purchases are recorded at cost in the Inventory Control account and in the individual inventory cards or records. We saw in chapter 6 that the following two entries are made at the time of sale:



(1)	Accounts Receivable/Cash at Bank	22	
	GST Payable		2
	Sales		20
	(Sold one unit of inventory for $22 including GST)		
(2)	Cost of Sales	10	
	Inventory Control		10
	(Transferred cost of unit sold)		

The dollar amounts of the first entry are based on the sales price plus GST. If the per-unit cost varies, the dollar amount recorded in the second entry varies depending on the cost flow method used.

A perpetual inventory record using the same data presented earlier for the periodic inventory system is shown in figure 13.3 (p. 568) for three cost flow assumptions: FIFO, LIFO and moving average. Note that the perpetual inventory record shows the unit and dollar amounts on a continuous basis for goods on hand, goods purchased and goods sold. The calculations for the specific identification method are the same as those described earlier under a periodic inventory system and are not repeated here. The only difference is that an entry is made at the time of sale to record the transfer of cost from the Inventory Control account to the Cost of Sales account.

Figure 13.3 Inventory records, perpetual inventory system (FIFO, LIFO, moving average)

A. FIFO method

Item: Sandwich Toaster
Code: B1800
Location: Store Display
Minimum Stock: 10
Maximum Stock: 30

		Purchases			Cost of sales			Balance			
Date	Explanation	Units	Unit cost	Total cost	Units	Unit cost	Total cost	Units	Unit cost	Total cost	
1/7	Beginning balance							10	10.00	100.00	
15/9	Purchases	12	11.00	132.00				10	10.00	100.00	
								12	11.00	132.00	
20/9	Sales				8	10.00	80.00	2	10.00	20.00	
								12	11.00	132.00	
7/12	Purchases	15	12.00	180.00				2	10.00	20.00	
								12	11.00	132.00	
								15	12.00	180.00	
12/1	Sales				2	10.00	20.00	4	11.00	44.00	224
					8	11.00	88.00	15	12.00	180.00	

B. LIFO method

Item: Sandwich Toaster
Code: B1800
Location: Store Display
Minimum Stock: 10
Maximum Stock: 30

		Purchases			Cost of sales			Balance			
Date	Explanation	Units	Unit cost	Total cost	Units	Unit cost	Total cost	Units	Unit cost	Total cost	
1/7	Beginning balance							10	10.00	100.00	
15/9	Purchases	12	11.00	132.00				10	10.00	100.00	
								12	11.00	132.00	
20/9	Sales				8	11.00	88.00	10	10.00	100.00	
								4	11.00	44.00	
7/12	Purchases	15	12.00	180.00				10	10.00	100.00	
								4	11.00	44.00	
								15	12.00	180.00	
12/1	Sales				10	12.00	120.00	10	10.00	100.00	
								4	11.00	44.00	204
								5	12.00	60.00	

C. Moving average method

Item: Sandwich Toaster
Code: B1800
Location: Store Display
Minimum Stock: 10
Maximum Stock: 30

		Purchases			Cost of sales			Balance		
Date	Explanation	Units	Unit cost	Total cost	Units	Unit cost	Total cost	Units	Unit cost	Total cost
1/7	Beginning balance							10	10.00	100.00
15/9	Purchases	12	11.00	132.00				22	10.55	232.00
20/9	Sales				8	10.55	84.40	14	10.55	147.60
7/12	Purchases	15	12.00	180.00				29	11.30	327.60
12/1	Sales				10	11.30	113.00	19	11.30	**214.60**

Calculations

15/9 (\$100.00 + \$132.00)/(10 units + 12 units) = \$10.55 per unit
7/12 (\$147.60 + \$180.00)/(14 units + 15 units) = \$11.30 per unit

First-in, first-out method

Under the FIFO method (part A of figure 13.3), the cost of units removed from inventory is assumed to be from the ***first units available for sale*** at the time of each sale. The cost of the units on hand, therefore, is composed of the most recent purchases. Thus, in figure 13.3, the cost of the 8 units sold ($80) on 20 September is calculated from the unit cost of the earliest units available, which are those in the beginning inventory. The 14 remaining unsold units are assumed to be from the beginning inventory (2 units) and from the 15 September purchase (12 units). The identification of units from separate purchases results in what are frequently called 'inventory cost layers'. For the next sale, the costs of 2 units from the beginning inventory ($20) and 8 units from the first purchase ($88) are transferred to cost of sales. This leaves an ending inventory of 19 units, valued at $224. The Cost of Sales account shows a total of $188 ($80 + $20 + $88) at the end of the period.

Last-in, first-out method

When the LIFO method (part B of figure 13.3) is used in conjunction with a perpetual inventory system, the cost of sales is determined at the point of each sale based on the assumption that the last costs acquired are transferred out first. Thus the cost of the units sold on 20 September consists of the cost of the most recent units purchased on 15 September. The inventory balance of 14 units consists of two inventory cost layers — 10 units from the beginning inventory and 4 from the 15 September purchase. Similarly, the units sold on 12 January are identified with the most recent costs acquired on 7 December. The cost of sales for the period is $208 ($88 + $120) and the ending inventory is $204 ($100 + $44 + $60).

Moving average method

Under the **moving average** method (part C of figure 13.3), a new average cost per unit is calculated after each purchase. The average is called a moving average because a new weighted average cost is calculated after each purchase rather than simply calculating a weighted average at the end of the period. The moving average cost, calculated after a purchase, is used to calculate the cost of sales and inventory on hand until additional units are acquired at a different unit price. The moving average cost is calculated as follows:

$$\frac{\text{Cost of goods available for sale currently}}{\text{Total number of units available for sale currently}} = \text{Moving average cost}$$

In our illustration, the average cost per unit after the 15 September purchase is:

$$(\$100 + \$132)/(10\text{ units} + 12\text{ units}) = \$10.55\text{ per unit}$$

Since there were no additional purchases made before the sale of 8 units on 20 September, the cost of these units sold is $84.40 (8 units × $10.55 per unit). The 14 units on hand are valued at $147.60 ($232.00 − $84.40). As a result of rounding, the ending inventory is approximately equal to the 14 units times the $10.55 per unit. This average cost of $10.55 is used to cost additional units sold until another purchase is made, at which time a new moving average cost is calculated, as shown in part C of figure 13.3, after the purchase transaction of 7 December.

Justifications for and disadvantages of using each method are the same as those discussed earlier for the periodic inventory system and are not repeated here. Furthermore, the relative dollar amounts of cost of sales, profit and ending inventory produced by the methods are also the same. That is, in periods of rising prices, LIFO produces a higher cost of sales, a lower profit and a lower ending inventory than the FIFO or average cost methods.

BUSINESS KNOWLEDGE

Fresh approach to curb shoplifting

Like many produce retailers, my nearest Coles, at Maroubra in suburban Sydney, is generous to a fault with its giveaways. My weekly visit there invariably begins with a spectacle I watch with fascination: shoppers filing through the fruit and veg department plundering the merchandise. They paw it, lift it up and hold it to their noses, bite into it and, all-too-often, straight out gorge themselves on it.

All in the spirit of 'try before you buy', of course.

One recent Saturday I decided to try to interest a couple of the Coles floor staff in how much shoplifting of produce was going on under their noses, and how little I felt like buying the stuff after it had been mauled by other shoppers. I received an indifferent, even frosty, response, as though it was un-Australian of me to be bothered what other customers were doing. Staff are a large part of the shoplifting problem worldwide. In many instances, they are the only problem.

According to the most recent Global Retail Theft Barometer (GRTB) put out by Britain's Centre for Retail Research, employee theft accounted for 35 per cent, or $41.7 billion, of global shrinkage at retail stores in 2011. Customer theft was responsible for 43 per cent, or $51.5 billion; the rest was attributable to internal error (for example, incorrect price-tagging) and vendor fraud.

The Centre for Retail Research estimates Australia's retail shrinkage amounted to just over $2 billion in 2011, equal to 1.4 per cent of retail sales. This placed Australia 18th internationally and fourth of developed countries behind the US, Canada and Belgium. Globally, department stores, sellers of auto parts and clothing retailers have the highest rates of shrinkage.

Grocery stores are not just a target for shoplifters; they are also particularly susceptible to spoilage in fresh-food departments. Coles has made inroads into the latter problem by better managing its inventory in recent years.

How to combat shrinkage

Larger retailers are combining human security and technology. Some of these solutions are very conspicuous, such as the security guards minding exits of JB Hi-Fi stores (a retailer that has been notably successful in keeping down shrinkage in a sector that is naturally predisposed to it).

Foremost among technological fixes is radio-frequency identification (RFID), which is being extensively trialled by global retailers such as Walmart and Macy's. It is used mainly for improving inventory management and accuracy. This also makes it a key enabler of omni-channel retailing, because when retailers know what their stores stock, they can systematically use it to fill online orders.

RFID involves attaching a small chip or 'tag' to each item of merchandise that acts as its unique identifier. These tags are readable from hand-held or fixed scanners using radio frequencies. The chips are analogous to barcodes but work better, because they can be read from a distance and do not need to be lined up precisely with the reading device. As stolen merchandise leaves the store, RFID can make the retailer aware of it in real time. This makes it useful to combat direct theft by employees as well as by customers.

Until RFID becomes universal, more down-to-earth measures are necessary and staff training and personal integrity are key. The people on the selling floor have to be encouraged to take an interest. Yet with store employees currently ripping off about 80c worth of merchandise for every dollar's worth that customers grab, that isn't as straightforward as it seems.

Source: Excerpts from Baker, M 2013, 'Fresh approach to curb shoplifting', ***The Sydney Morning Herald***, 9 March.

LEARNING CHECK

☐ Under the perpetual inventory system, cost flow assumptions are needed in accounting for inventory because of the change in inventory cost prices during a reporting period.

☐ The weighted average cost flow assumption is referred to as a moving average in a perpetual system.

13.4 Comparison of inventory systems

LO 4 Compare the results of cost flow assumptions for the periodic and perpetual inventory systems.

Application of the alternative cost flow assumptions has now been illustrated using the same data for both the periodic and perpetual inventory systems. For comparison, the results obtained for both methods are presented in figure 13.4, assuming that the 18 units were sold for $360 and other expenses were $120.

A comparison of the specific identification and the FIFO methods in figure 13.4 reveals that the same amount of cost is assigned to the ending inventory and to cost of sales under both the perpetual and the periodic inventory systems. Using FIFO, the same amounts are obtained because in calculating the cost of sales it is always the oldest units available for sale that are assumed to be the units sold. (Another way to say this is that the ending inventory cost under both systems is assumed to consist of the most recent purchases.) The values obtained with the specific identification method are the same because the units identified as sold are the same under both inventory systems.

When the LIFO method is used, both the ending inventory and cost of sales dollar amounts may vary between the perpetual and periodic systems. The periodic system with LIFO produces a cost of sales of $213 and an ending inventory of $199. The amounts for the perpetual inventory system are $208 and $204 respectively. The two methods produce different results because of the timing of the calculation of cost of sales. Under the periodic system, cost of sales is calculated at the end of the period and the dates of sale are ignored. With the perpetual system, cost of sales is calculated at the time of each sale. The cost of sales and ending inventory calculations for both inventory systems are shown underneath figure 13.4.

When the perpetual system is used and prices are rising, units with a lower cost (the more recent purchases at the time of sale) are charged to cost of sales, which in this example results in some units of the last purchase on 7 December being considered still on hand. Under a periodic system, these more expensive units are included in the cost of sales calculation; the lower-cost units in the beginning inventory and first purchase are considered still to be on hand in the ending inventory.

Although the calculation of average cost is essentially the same under both systems, the two systems produce different results when prices change during the reporting period. The results differ because, under the perpetual system, the cost transferred to cost of sales each time a sale is made is based on a moving average that changes whenever new goods are purchased. Under the periodic system, one weighted average cost for the entire period is used to cost all sales during the period.

Figure 13.4 Comparison of inventory systems and costing methods

Perpetual Inventory System
(from figure 19.3 for FIFO, LIFO and moving average)

	Specific identification	FIFO	LIFO	Moving average
Sales revenue — 18 units	$360	$360	$360	$360
Less: Cost of sales	202	188	208	197
Gross profit	158	172	152	163
Less: Expenses	120	120	120	120
Profit	$ 38	$ 52	$ 32	$ 43
Ending inventory	$210	$224	$204	$215

Periodic Inventory System
(from figure 19.2)

	Specific identification		FIFO		LIFO		Weighted average	
Sales revenue — 18 units		$360		$360		$360		$360
Beginning inventory	$100		$100		$100		$100	
Add: Purchases	312		312		312		312	
Goods available for sale	412		412		412		412	
Less: Ending inventory	210		224		199		212	
Cost of sales		202		188		213		200
Gross profit		158		172		147		160
Less: Expenses		120		120		120		120
Profit		$ 38		$ 52		$ 27		$ 40
Ending inventory		$210		$224		$199		$212

Periodic inventory system (LIFO) (see pages 563–4)				Perpetual inventory system (LIFO) (see figure 13.3)			
Cost of sales							
Date acquired	**Units**	**Unit cost**	**Total**	**Date acquired**	**Units**	**Unit cost**	**Total**
15/9	3	$11	$ 33	15/9	8	$11	$ 88
7/12	15	12	180	7/12	10	12	120
Cost of sales			$213	Cost of sales			$208
Ending inventory							
1/7	10	$10	$100	1/7	10	$10	$100
15/9	9	11	99	15/9	4	11	44
				7/12	5	12	60
Ending inventory			$199	Ending inventory			$204

When prices increase during a period, a moving average yields a lower cost of sales and a higher ending inventory than a periodic weighted average. This happens because the periodic weighted average is calculated at the end of the period and is affected by the higher unit cost of purchases made late in the period.

In summary, when prices are changing, the periodic and perpetual systems produce different profit figures under the LIFO and average costing methods. The extent of the variation is determined mainly by the rate of change in prices during the period and the frequency with which the inventory is purchased and sold.

LEARNING CHECK

☐ The same cost flow assumption in accounting for inventory can produce a different answer under a perpetual inventory system from that under a periodic inventory system.

☐ The cost flow assumptions that provide the same profit outcomes under both inventory systems are the specific identification and FIFO assumptions.

☐ One reason the LIFO method is not included as an acceptable method by the accounting standard is because it can cause inventory in the balance sheet to be recorded in out-of-date prices during inflation.

13.5 The lower of cost and net realisable value rule

LO 5 **Apply the lower of cost and net realisable value rule, required by accounting standards, for the valuation of inventory.**

Cost is the main basis for recording and reporting most assets in current accounting practice. The inventory costing methods we have been discussing are alternatives for arriving at the cost of inventory when unit costs fluctuate during the period. When there has been a decrease in the selling price of inventory, however, it is considered appropriate in certain circumstances to report inventory at an amount below its cost. In essence, IAS 2/AASB 102 requires inventories to be valued at the **lower of cost and net realisable value**. The standard defines **net realisable value** as the estimated selling price in the normal course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

A decline in value below cost could result from obsolescence, damage, deterioration or a decline in demand. At the end of the period, the cost of the inventory on hand is compared with its net realisable value. If the net realisable value of the inventory is less than its cost, the inventory is written down to net realisable value and the associated expense must be recognised in the period in which the write-down occurs. Application of this requirement ensures that inventory cannot be valued above cost; in other words, inventories cannot be revalued upwards above cost, but can be revalued downwards to net realisable value, if applicable.

In measuring inventories at the lower of cost and net realisable value, the standard suggests that this is usually performed on an item-by-item basis. However, in some cases, it may be appropriate

to group together similar or related items, especially inventories relating to the same product line or inventories that have similar purposes or end uses.

Estimates of net realisable value at the end of the period must be based on the most verifiable evidence available of the net amount that the inventories are expected to realise. These estimates should take into consideration price fluctuations relating to events after the end of the period only when such events confirm conditions existing at the end of the period.

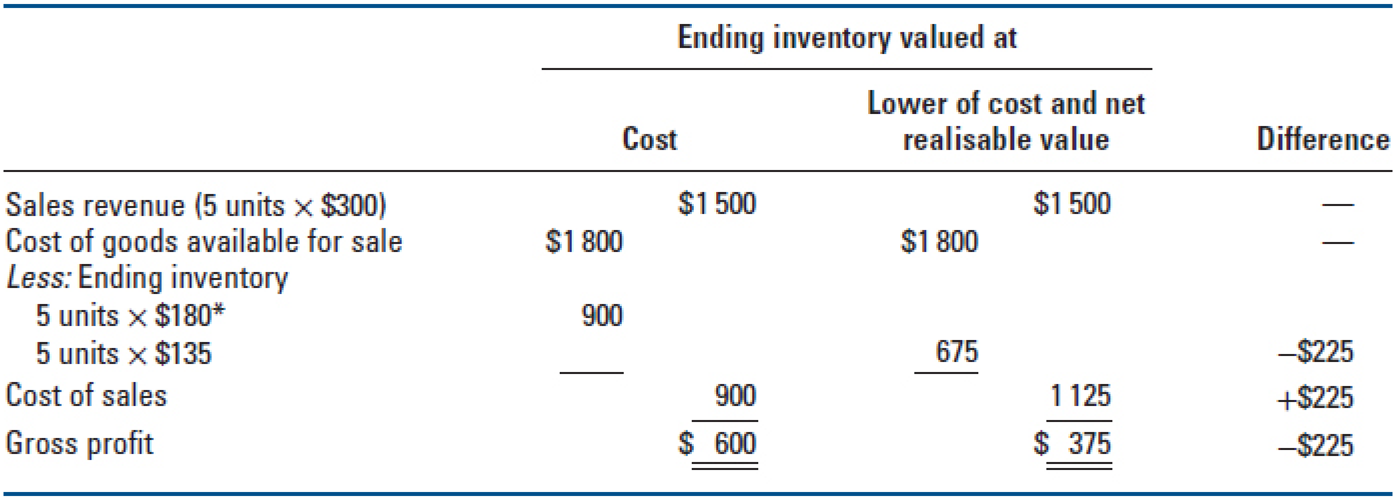
In a manufacturing entity, materials and other supplies held for use in the production process are not to be written down below cost if the finished goods to which they relate are expected to be sold at or above cost. However, if a drop in the price of materials indicates that the cost of the finished goods exceeds net realisable value, then the materials should be written down to net realisable value.

Net realisable value should be assessed at the end of each period and further decisions made. If there is clear evidence in a later period that net realisable value has increased because of improved economic circumstances, then IAS 2/AASB 102 requires any previous write-down to net realisable value to be reversed; but the reversal cannot exceed the previous write-down from cost. Cost is the maximum value to be placed on inventories.

In a not-for-profit entity, application of the lower of cost and net realisable value rule is in-appropriate for any inventories held for the purpose of distribution rather than for sale (e.g. for distribution to needy people). Instead, AASB 102 (but not IAS 2, which deals only with business entities) requires inventories held for distribution to be valued at the lower of cost and current replacement cost. **Current replacement cost** is defined as the cost that the not-for-profit entity would incur to acquire the asset at the end of the reporting period. If a not-for-profit entity acquires inventories at no cost or at a nominal amount, AASB 102 requires these inventories also to be valued at current replacement cost.

If a business entity uses a valuation figure that is lower than cost, this is justified by the desire of accountants to be prudent in valuing assets in the preparation of financial statements. Hence, probable losses are recorded in the accounts in the period in which the loss is first noticed. Thus, application of the lower of cost and net realisable value rule results in a decrease in inventory value being recorded in the period in which the decrease in value occurs rather than in a subsequent period when the inventory is sold.

To illustrate the application of the rule, assume that 10 units of an item costing $180 per unit were priced to sell for $300 per unit excluding GST and 5 units were sold during the period. The expected gross profit is $120 per unit or 40% ($120 ÷ $300) of sales price. At the end of the period, net realisable value of the units declined to $135, 25% below cost. Gross profit on sales based on cost and the lower of cost and net realisable value for the year is shown below:

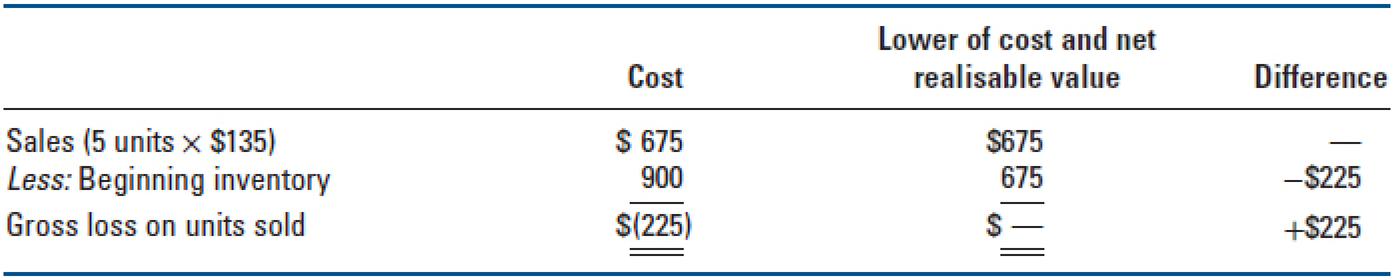


	Ending inventory valued at				
	Cost		Lower of cost and net realisable value		Difference
Sales revenue (5 units × $300)		$1 500		$1 500	—
Cost of goods available for sale	$1 800		$1 800		—
Less: Ending inventory					
5 units × $180*	900				
5 units × $135			675		–$225
Cost of sales		900		1 125	+$225
Gross profit		$ 600		$ 375	–$225

*When the unit cost fluctuates, cost would be determined by using any of the cost flow assumptions.

Applying the lower of cost and net realisable value rule in this example results in the ending inventory being $225 [5 units × ($180 – $135)] less than the historical cost ending inventory figure. The reduction in the ending inventory value becomes a part of the cost of sales, reducing the gross profit by $225. In the next period, when the goods are sold at a price of $135 each, gross

profit on sales based on cost and on the lower of cost and net realisable value is $(225) and zero respectively, as shown below:



	Cost	Lower of cost and net realisable value	Difference
Sales (5 units × $135)	$ 675	$675	—
Less: Beginning inventory	900	675	–$225
Gross loss on units sold	$(225)	$ —	+$225

As shown in the cost column, if the write-down is not made in the preceding period, a loss of $225 is made in the year the units are sold. When the write-down of the inventory to the lower of cost and net realisable value in the preceding period is made, the gross profit in the current period is expected to be zero. Thus, applying the rule results in the $225 decline in inventory cost being recognised in the period in which it occurs rather than in the period in which the goods are sold. If, in a subsequent period, there is a reversal of this decline because of a rise in net realisable value, according to IAS 2/AASB 102 the reversal must be recognised in the period in which it occurs as a reduction of the expense relating to inventories, i.e. the cost of sales, for that period.

LEARNING CHECK

☐ An entity must apply the lower of cost and net realisable value rule to ensure that inventory is not overvalued.
☐ The rule is to be applied on an item-by-item basis if possible.
☐ Inventories can be written upwards or reversed, only if net realisable value rises, and only if the inventory had been written down previously to net realisable value.
☐ Inventory cannot be revalued above cost.

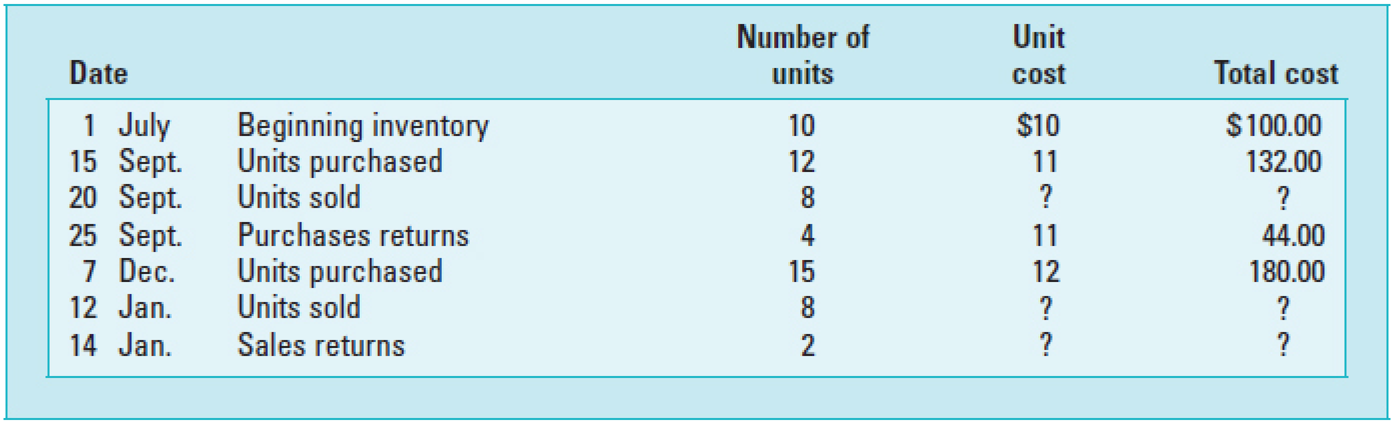
13.6 Sales returns and purchases returns

LO 6 **Record sales returns and purchases returns under the perpetual inventory system with different cost flow assumptions.**

Sales returns and purchases returns, when inventory prices are rising or falling, are illustrated for the perpetual inventory system by modifying the sandwich toaster example. Assume now the data shown in figure 13.5, amended from figure 13.1.

Under the perpetual inventory system, details of the inventory record for this item under the alternative cost flow assumptions of FIFO and moving average are presented in figure 13.6. Note that purchases returns are recorded as negative items in the purchases column of the inventory record, and are recorded in accordance with the price as negotiated with the supplier/account payable. It is assumed in figure 13.5 that purchases returns on 25 September came from the purchases of 15 September, hence the purchases returns are recorded at $11 each. The price of $11 is used irrespective of the cost flow assumption adopted by the entity. Note, however, that the return of inventory to the supplier has an effect on the moving average cost calculated in part B of figure 13.6, as explained below. Sales returns are indicated on the inventory record as negative items in the cost of sales column. It is assumed that these returns on 14 January came from the sale of goods on 12 January. However, the cost price attached to the items returned varies in accordance with the cost flow assumption used.

Figure 13.5 Data including sales returns and purchases returns



Date		Number of units	Unit cost	Total cost
1 July	Beginning inventory	10	$10	$100.00
15 Sept.	Units purchased	12	11	132.00
20 Sept.	Units sold	8	?	?
25 Sept.	Purchases returns	4	11	44.00
7 Dec.	Units purchased	15	12	180.00
12 Jan.	Units sold	8	?	?
14 Jan.	Sales returns	2	?	?

Figure 13.6 Sales returns and purchases returns in the perpetual inventory system under different cost flow assumptions

A. FIFO method

Item: Sandwich Toaster — Minimum Stock: 10

Code: B1800 — Location: Store Display — Maximum Stock: 30

Date	Explanation	Purchases			Cost of sales			Balance		
		Units	Unit cost	Total cost	Units	Unit cost	Total cost	Units	Unit cost	Total cost
1/7	Beginning balance							10	10.00	100.00
15/9	Purchases	12	11.00	132.00				10	10.00	100.00
								12	11.00	132.00
20/9	Sales				8	10.00	80.00	2	10.00	20.00
								12	11.00	132.00
25/9	Purchases returns	(4)	11.00	(44.00)				2	10.00	20.00
								8	11.00	88.00
7/12	Purchases	15	12.00	180.00				2	10.00	20.00
								8	11.00	88.00
								15	12.00	180.00
12/1	Sales				2	10.00	20.00	2	11.00	22.00
					6	11.00	66.00	15	12.00	180.00
14/1	Sales returns				(2)	11.00	(22.00)	4	11.00	44.00
								15	12.00	180.00

B. Moving average method

Item: Sandwich Toaster — Minimum Stock: 10

Code: B1800 — Location: Store Display — Maximum Stock: 30

Date	Explanation	Purchases			Cost of sales			Balance		
		Units	Unit cost	Total cost	Units	Unit cost	Total cost	Units	Unit cost	Total cost
1/7	Beginning balance							10	10.00	100.00
15/9	Purchases	12	11.00	132.00				22	10.55	232.00
20/9	Sales				8	10.55	84.40	14	10.55	147.60*
25/9	Purchases returns	(4)	11.00	(44.00)				10	10.36	103.60
7/12	Purchases	15	12.00	180.00				25	11.34	283.60
12/1	Sales				8	11.34	90.72	17	11.34	192.88
14/1	Sales returns				(2)	11.34	(22.68)	19	11.34	215.56

Calculations

15/9 ($100.00 + $132.00)/(10 units + 12 units) = $10.55 per unit

25/9 ($147.60 – $44.00)/10 = $10.36 per unit

7/12 ($103.60 + $180.00)/(10 units + 15 units) = $11.34 per unit

*Slight discrepancies because of rounding of figures.

Returns using the first-in, first-out method

For the FIFO method (part A of figure 13.6), purchases returns are shown on the inventory record at the negotiated price of $11. However, for sales returns, notice that they are costed back into inventory at the ***most recent*** cost price that had been attached to the sale of 12 January. In other words, under FIFO, goods returned are brought in at the latest price attached to the relevant sale, in order to ensure that cost of sales still reflects the first costs out of inventory. This, too, will cause the inventory account after the sales return to reflect the later costs inwards, and will ensure consistency with FIFO calculations under the periodic inventory system.

Returns using the moving average method

Under the moving average method (part B of figure 13.6), a new average cost per unit is calculated after each purchase and also after each purchase return in order to keep the moving average

up to date. The purchase return is recorded on the inventory record at the actual price negotiated with the supplier and not at the moving average price. Hence, on 25 September, a new moving average cost is calculated at ($147.60 − $44.00)/10 = $10.36. This cost is then used for all sales and sales returns until the next purchase or purchase return occurs. Note that for the sales return on 14 January, the moving average cost at the time, $11.34, is recorded on the inventory record.

LEARNING CHECK

- ☐ Under the FIFO and moving average cost flow assumptions, sales returns in a perpetual inventory system are recorded as a negative cost of sales in the inventory record.
- ☐ Under the FIFO and moving average cost flow assumptions, purchases returns in a perpetual inventory system are recorded as negative purchases in the inventory record, and are costed at the price paid for the original batch.

13.7 Inventory errors

LO 7 **Describe the effects on financial statements of errors made in determining inventory.**

Cost of sales is the largest expense item for retail entities. The inventory balance of unsold goods is often the largest current asset reported in the balance sheet. The determination of correct dollar amounts to be reported for these two financial statement items is therefore very important. Because of the large volume of inventory transactions and the necessity of making numerous calculations, errors can occur at various stages in accounting for inventory.

Perpetual inventory. If a perpetual inventory system is maintained, a physical stocktake is made at the end of the period to verify the balances shown in the individual inventory cards or records. Even if the inventory records and the physical count are in agreement, there may still be errors in the accounts. A common error is the failure to record goods in transit owned by the entity at the end of the period. As discussed earlier, such errors have no effect on profit, but inventory and accounts payable are both understated by the same amount.

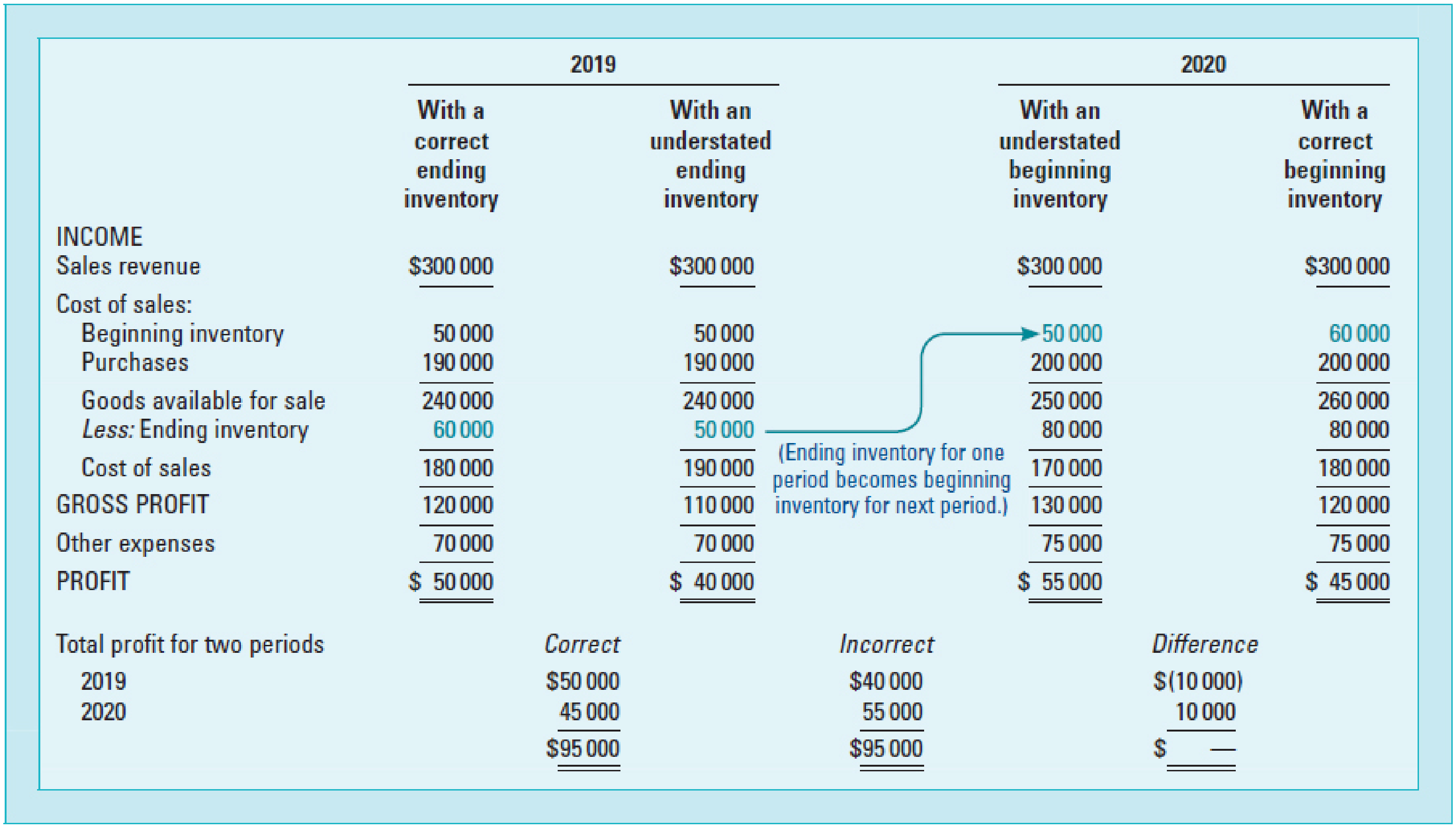
Another common error is the failure to observe a proper cut-off for recording sales and the related cost of sales. For example, a sale made after the year-end may have been recorded before year-end. If this error occurs, sales, cost of sales, gross profit and profit are overstated. In the balance sheet, accounts receivable is overstated and inventory is understated — resulting in a net overstatement in total assets and equity equal to the amount of the gross profit on the sale.

Periodic inventory. Under a periodic inventory system, errors may occur in counting and pricing the inventory and in the failure to use the proper cut-off dates for recording purchases and sales. To illustrate the effects of errors in a periodic inventory system, it is helpful to consider the calculation of cost of sales. In figure 13.7, it is assumed that a $10 000 understatement in the ending inventory occurred while doing the stocktake at the end of 2019. As can be seen when compared with the 'correct' column, this error resulted in an overstatement in the cost of sales and an understatement in both gross profit and profit. Since the ending inventory is also reported as a current asset, this error will cause current assets, total assets and equity all to be understated by $10 000. The opposite happens if the ending inventory is overstated rather than understated.

The failure to discover the error in the ending inventory will also cause the income statement for the next period to be incorrect, since the ending inventory for one period becomes the beginning inventory for the next period. In the next year, cost of sales is understated by $10 000, and both gross profit and profit are overstated by $10 000. Again, the opposite is true if the beginning inventory had been overstated.

In the absence of any other errors, the balance sheet amounts are correct at the end of 2020. This results because inventory errors offset one another over two consecutive periods. That is, the profit in 2019 is understated by $10 000, but the profit in 2020 is overstated by $10 000. Thus, although each year is in error, the total profit for the two periods of $95 000 is correct and the equity accounts at the end of 2020 are also correct.

Figure 13.7 Comparative income statements showing effects of inventory errors in two operating periods (all amounts are assumed)



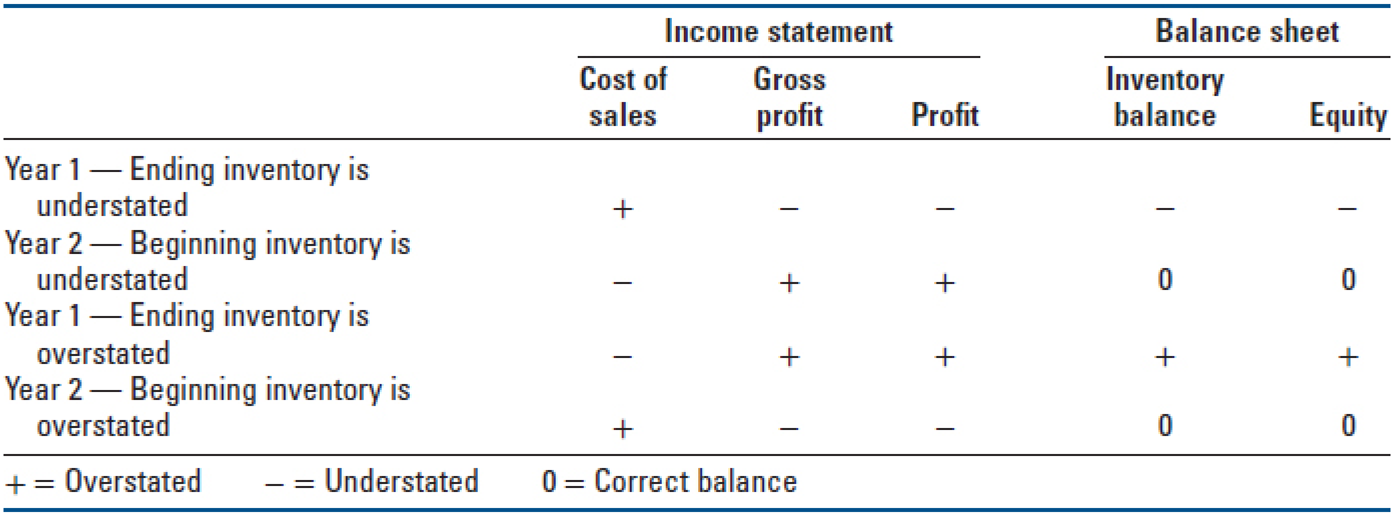
	2019		2020	
	With a correct ending inventory	With an understated ending inventory	With an understated beginning inventory	With a correct beginning inventory
INCOME				
Sales revenue	$300 000	$300 000	$300 000	$300 000
Cost of sales:				
Beginning inventory	50 000	50 000	50 000	60 000
Purchases	190 000	190 000	200 000	200 000
Goods available for sale	240 000	240 000	250 000	260 000
Less: Ending inventory	60 000	50 000	80 000	80 000
Cost of sales	180 000	190 000	170 000	180 000
GROSS PROFIT	120 000	110 000	130 000	120 000
Other expenses	70 000	70 000	75 000	75 000
PROFIT	$ 50 000	$ 40 000	$ 55 000	$ 45 000

(Ending inventory for one period becomes beginning inventory for next period.)

Total profit for two periods	*Correct*	*Incorrect*	*Difference*
2019	$50 000	$40 000	$(10 000)
2020	45 000	55 000	10 000
	$95 000	$95 000	$ —

If the errors are discovered after 2020 and comparative financial statements are prepared, the appropriate amounts reported in the financial statements should be corrected even though the errors are offsetting. Failure to do so distorts the trend of the entity's profits. For example, in figure 13.7, the correct inventory amounts yield a declining profit trend, whereas the incorrect amounts show increasing profit amounts. Finally, if the error is discovered before the close of the 2020 year-end, a correcting entry should be made to increase the Inventory account. The offsetting credit is made to profit because the profit was understated by $10 000 at the end of 2019. Adjustments to profits must be reflected through the profits of the year in which the adjustment was recognised.

The effects of inventory errors on various financial statement items can be summarised as shown below:



	Income statement			Balance sheet	
	Cost of sales	Gross profit	Profit	Inventory balance	Equity
Year 1 — Ending inventory is understated	+	–	–	–	–
Year 2 — Beginning inventory is understated	–	+	+	0	0
Year 1 — Ending inventory is overstated	–	+	+	+	+
Year 2 — Beginning inventory is overstated	+	–	–	0	0

+ = Overstated – = Understated 0 = Correct balance

BUSINESS KNOWLEDGE

Families buy in to Sunday shop

The traditional Saturday grocery shop may be a thing of the past, with Sunday fast becoming the preferred day to hit the supermarket aisles. Time-poor families are heading out on the day of rest, with the first day of the weekend taken up by social activities and children's sports.

New research involving almost 10 000 shoppers, carried out by Quantium on behalf of Woolworths, found Sunday was the fastest-growing shopping day of the week, with 18 per cent of respondents buying most of their groceries at the end of the week. Over the past year, Sunday foot traffic to Woolworths supermarkets grew by 3 per cent, while the number of people doing their biggest shop on Saturdays fell by 2 per cent. But, for now, Saturday remains the most popular day at the supermarket, with 20 per cent of respondents doing their biggest shop on that day. The research also found shoppers are abandoning the traditional weekly shop, with the average customer spending just a third of their weekly food budget on their main shopping day. They tend to visit the supermarket several times throughout the week instead.

Queensland University of Technology retail expert Dr Gary Mortimer said changing demographics to smaller, single-person households with limited kitchen storage space had driven the change to more frequent shops. He said the MasterChef effect had also led shoppers to try new meals ideas throughout the week and put their focus on buying fresher produce. 'Ultimately, shoppers are demanding fresher, healthier food choices and are less willing to do large shops at the beginning of the week and store these foods for seven days,' he said.

He said improved technology meant supermarkets no longer had a 'best day' to shop for fresh fruit, meat and veggies and bargain hunters could not rely on cut-price produce at the end of the day. 'Supermarket inventory management systems are now so advanced they can track sales data and make very accurate forecasts,' he said. 'We generally don't see a great range of fresh product being marked down any longer at the end of the night.'

Source: Excerpts from Gough, A 2013, 'Research shows Sunday foot traffic grows as time-poor families abandon traditional Saturday shop', ***The Courier-Mail***, 24 August.

LEARNING CHECK

☐ Inventory errors can occur for many reasons — failure to record goods in transit or to consider shipping terms, failure to record correctly in the accounts or in the inventory records. Many errors are detected by comparing inventory records with the stocktake.

☐ The effects of inventory errors in one accounting period can result in errors in the next accounting period as well, if not corrected.

13.8 Estimating inventories

LO 8 **Estimate the value for inventories using the retail inventory and gross profit methods.**

When a perpetual inventory accounting system is used, the cost of sales and the dollar amount of the inventory on hand are readily determinable throughout the period from the accounting records. However, some small business entities often use a periodic inventory system. As we know, a periodic system needs a physical stocktake to determine the ending inventory balance. A stocktake is so time-consuming and expensive that it is usually performed only at the end of the financial year.

However, management and other statement users want interim financial statements at regular intervals during the accounting period in order to make economic decisions about the performance of the entity. If a periodic inventory system is used, the preparation of the income statement requires the inventory on hand to be determined for the calculation of the cost of sales. The ***retail inventory method*** and the ***gross profit method*** are two approaches that can be used to ***estimate*** the dollar amount of unsold goods without a stocktake.

In addition, the two methods are also useful for testing the accuracy of a stocktake done by the entity's employees, for providing some insights into the dollar amount of inventory shortages from such causes as theft and damage, and for estimating the goods on hand when a stocktake cannot be done, such as when the inventory has been destroyed by fire or flood. The retail inventory method is also used by a retail business to convert a physical stocktake valued at retail prices to an estimated cost amount.

Retail inventory method

The **retail inventory method** may be used in two ways. In one approach, no physical stocktake is performed and the cost of ending inventory is estimated. This is acceptable for interim reporting

purposes (e.g. monthly) when a physical stocktake would be costly and inconvenient. Entities using this method normally perform an annual stocktake to ensure the accuracy of cost of sales and inventory figures for annual reporting purposes. With the second approach, a physical stocktake is carried out and valued at retail prices and this value is then converted to cost for financial statement purposes. Both methods are covered below.

To use the retail inventory method, the entity must maintain records of the beginning inventory and purchases made during the period at both cost and retail (selling price excluding GST). One method of achieving this is to add another column to the purchases journal in which to record the retail value. The goods available for sale at cost are divided by the goods available for sale at retail to calculate a relationship between cost and selling price called the ***ratio of cost to retail*** or simply the ***cost ratio***. An estimate of the inventory at retail is then determined by subtracting the sales recorded during the period from the goods available for sale at retail. The ending inventory at retail is multiplied by the cost ratio to arrive at an estimate of the ending inventory at cost.

To illustrate, assume that the following information was accumulated in the accounts and supplementary records:

	Cost	Retail
Beginning inventory	$24 500	$40 000
Net purchases to date	35 500	60 000
Net sales	—	80 000

The ending inventory at cost is estimated as follows:

	Cost	Retail
Beginning inventory	$24 500	$40 000
Net purchases	35 500	60 000
Goods available for sale	$60 000	$100 000
Ratio of cost to retail: $\frac{\$60\,000}{\$100\,000} = 60\%$		
Less: Net sales (excluding GST)		80 000
Estimate of ending inventory at retail		20 000
Cost ratio		× 60%
Estimate of ending inventory at cost		$12 000

The cost of sales can now be determined as $48 000 ($60 000 cost of goods available for sale minus $12

000 ending inventory at cost). The ending inventory, as calculated above, is an estimate acceptable for interim statements. The entity should still conduct a stocktake at least once a year for control purposes and to ensure a proper measurement of the cost of sales and of inventory for financial statement purposes.

The retail inventory method is also a convenient means of converting a physical inventory taken at retail to a cost amount. In other words, in a retail store each item for sale is generally marked to indicate the sales price. Consequently, during a stocktake the units are listed at current retail prices as they are counted. This procedure eliminates the need to look up purchase invoices to determine the unit cost of each item. The retail dollar value of the ending inventory is converted to cost by applying the cost ratio calculated as shown above. Remember that the cost ratio is applied to the inventory value determined by a physical count. An estimate of the ending inventory at retail is still calculated as a control measure because significant differences between the actual retail value and the estimate may indicate problems in the accounting system or excessive losses from theft or other causes.

The accuracy of the ending inventory determined by the retail inventory method depends on the mix or composition of goods in the ending inventory in relation to the mix of goods used to calculate the cost ratio. The method assumes that the ending inventory consists of the same mix of goods at various cost percentages as was contained in the goods available for sale.

In practice, the originally established sales price of many items does not remain constant during the period but, in fact, changes frequently during the year as prices are reduced for special sales or are increased as the market value of the item increases. Several different types of adjustments between cost price and retail price can occur.

- **Additional mark-ups** — representing increases above original retail prices because of unusual demand, or rises in the general level of prices (but excluding GST).
- **Mark-up cancellations** — representing a downward revision of retail prices (excluding GST) because of lack of demand, or too high a mark-up in the first place because of competition.

Note that both additional mark-ups and mark-up cancellations are permanent alterations to retail prices and therefore affect both cost of sales and ending inventory and should be taken into account in determining the cost ratio.

- **Mark-downs** — a price cut to promote sales often for seasonal or slow-moving items.
- A **mark-down cancellation** — a price increase to cancel a mark-down and to adjust sale items back to normal retail prices.

Mark-downs also must come into the calculation of cost of sales and ending inventory by adjusting the retail figures. In other words, they affect calculation of the cost ratio. Employee or staff discounts are a particular type of mark-down.

To illustrate the effect of additional mark-ups and mark-downs, let us extend the previous example by assuming the following data:

Adjustments affecting both goods sold and ending inventory:

additional mark-ups	$1 200
mark-up cancellations	800
mark-downs	1 800
mark-down cancellations	300
staff discounts	3 000

The ending inventory at cost is estimated as follows:

	Cost	Retail
Beginning inventory	$24 500	$ 40 000
Net purchases	35 500	60 000
		100 000
Add: Additional mark-ups		1 200
Less: Mark-up cancellations		(800)
Staff discounts		(3 000)
Mark-downs		(1 800)
Add: Mark-down cancellations		300
Goods available for sale	$60 000	95 900
Ratio of cost to retail:		
$\frac{\$60\,000}{\$95\,900} = 62.565\%$		
Less: Sales (excluding GST)		80 000
Ending inventory at retail		15 900
Cost ratio		× 62.565%
Ending inventory at cost		$ 9 948

In IAS 2/AASB 102, the retail inventory method is allowed to be used for convenience in general purpose financial statements if it results in an inventory valuation that approximates cost.

Gross profit method

Some business entities do not maintain a record of the retail price of beginning inventory and purchases. If this information is not available, the retail inventory method cannot be used. However, the goods on hand may be estimated without a stocktake by applying the **gross profit method**. This method is based on the assumption that the gross profit percentage remains

approximately the same from period to period. If an estimated value for ending inventory for the current period is required, the gross profit percentage (gross profit to net sales) of the previous period is used.

To illustrate, assume that the inventory of a business was totally destroyed by fire. A review of the last 2 years operations revealed that the gross profit percentage was 40%. On the date of the fire, the ledger had been posted and was up to date. Selected account balances were:

	Dr (Cr) balance
Sales	$(140 000
Sales returns and allowances	8 000
Purchases	83 100
Inventory — Beginning balance	16 300
Purchases returns and allowances	(2 500)
Freight inwards	700

The inventory on hand on the date of the fire can be estimated for insurance purposes by preparing a partial section of the income statement, using the available information:

INCOME				
Sales revenue			$140 000	
Less: Sales returns and allowances			8 000	
Net sales revenue			132 000	100%
Cost of sales:				
Beginning inventory		$16 300		
Purchases	$ 83 100			
Less: Purchases returns and allowances	(2 500)			
Add: Freight inwards	700			
Net purchases		81 300		
Goods available for sale		97 600		
Less: Estimated ending inventory		?		
Estimated cost of sales ($132 000 × 0.60)			79 200	60%
ESTIMATED GROSS PROFIT ($132 000 × 0.40)			$ 52 800	40%

It can be determined from the records that the business had $97 600 of goods available for sale up to the date of the fire. The cost of sales is estimated to be $79 200 by applying the cost percentage of 60% to the net sales. The goods that were available for sale but had not been sold must have been on hand; their cost is the difference between the estimated cost of sales ($79 200) and the cost of goods available for sale ($97 600), which is $18 400.

The above example presents a special case where the use of the gross profit method is necessary in order to make an estimate of inventory for, say, insurance claim purposes. As noted above, in the circumstances where inventory comprises a large number of rapidly changing items and where the cost of individual items may not be readily available, the retail inventory method was acceptable for the purposes of IAS 2/AASB 102. Under normal operating conditions and given inventories with these characteristics, the standard does not support the use of past gross profit percentages for determining values of inventory items, i.e. the gross profit method is not acceptable under the inventory standard for general purpose financial statements.

LEARNING CHECK

☐ Estimates of the amount of inventories using a retail inventory system for interim reporting, rely on keeping detailed records of mark-ups, mark-downs and cancellations, as well as staff discounts given.

☐ The gross profit method of estimating inventories is only an approximate measure for insurance purposes when inventory is lost as a result of theft, fire or flood.

13.9 Presentation in financial statements

LO 9 **Present information on inventories in financial statements.**

The method used to account for inventory can affect significantly an entity's financial position and performance, thus affecting the information available for making economic decisions. Because of the importance of inventory, certain information should be provided in general purpose financial statements. For a retail business such as a supermarket, inventory consists of many hundreds of different inventory items such as canned foods, meats, fruit and vegetables, dairy products and pharmaceuticals. Since all these various inventory items are owned by the business and are in a saleable condition, only one inventory classification is necessary, simply described as inventory.

For a manufacturing business, however, all inventories held at a certain date may not be in a saleable condition. For example, a furniture manufacturer would have inventories of finished goods, partly finished goods, and raw materials (such as steel, timber, stores and supplies). A manufacturer therefore classifies inventories into three categories: finished goods, work in process, and raw materials. Under IAS 2/AASB 102, for disclosure in general purpose financial statements, inventories are required to be subclassified in a manner suitable to the entity's activities. The total value of each of these subclassifications should be shown. Further subdivisions of inventory categories into current and non-current assets are required for general purpose statement preparation for the information of users.

In addition, the general basis or bases (cost, net realisable value) must be disclosed for each subclassification of inventory. Note that one or more bases may be used within inventories of each subclassification. The methods (e.g. FIFO, weighted or moving average) used to assign costs to inventory items must also be disclosed. Readers should peruse the set of published financial statements on the JB Hi-Fi Limited website at www.jbhifi.com.au to see how that company discloses inventories. Most details are shown in footnotes, which form part of the statements.

LEARNING CHECK

- ☐ It is important to provide information about an entity's inventory to users of financial statements as inventory is usually a significant asset in most entities.
- ☐ Information about inventories to be disclosed in financial statements includes its subcategories of finished goods, raw materials and work in process, and the valuation method for each subcategory.

13.10 Effect of costing methods on decision making

LO 10 **Discuss the effects of different cost flow assumptions on ratios used by decision makers.**

In chapter 6 on pages 262–4, we introduced four ratios that are useful indicators of the entity's performance in relation to retail operations. Three of these ratios are the gross profit ratio, which indicates the entity's overall mark-up on goods sold, the profit margin, which indicates the ability of the entity to convert its sales into profit, and the inventory turnover, which indicates the number of times an entity is able to turn over or sell its whole inventory during the accounting period.

Recall the formulas for these ratios:

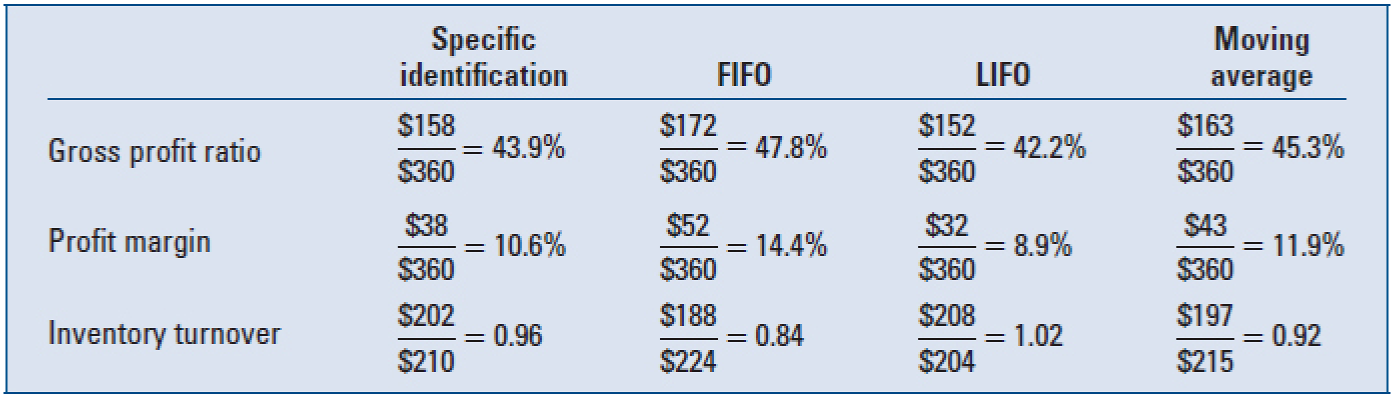
$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}}$$

$$\text{Profit margin} = \frac{\text{Profit}}{\text{Net sales}}$$

$$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Average inventory}}$$

To illustrate the effect of different inventory costing methods on these ratios, refer to figure 13.4 (p. 571) and consider the information available for the various costing methods under the perpetual inventory system. Calculations of the ratios for each costing method are contained in figure 13.8 (assuming that ending inventory is used as an approximation for average inventory in the turnover ratio):

Figure 13.8 The effect of inventory costing methods on performance indicators



	Specific identification	FIFO	LIFO	Moving average
Gross profit ratio	$\frac{\$158}{\$360} = 43.9\%$	$\frac{\$172}{\$360} = 47.8\%$	$\frac{\$152}{\$360} = 42.2\%$	$\frac{\$163}{\$360} = 45.3\%$
Profit margin	$\frac{\$38}{\$360} = 10.6\%$	$\frac{\$52}{\$360} = 14.4\%$	$\frac{\$32}{\$360} = 8.9\%$	$\frac{\$43}{\$360} = 11.9\%$
Inventory turnover	$\frac{\$202}{\$210} = 0.96$	$\frac{\$188}{\$224} = 0.84$	$\frac{\$208}{\$204} = 1.02$	$\frac{\$197}{\$215} = 0.92$

As can be seen from figure 13.8, an entity can influence significantly the ratios calculated as indicators of its performance merely by changing its costing methods for inventory. It is important that decision makers are aware of the costing methods used by the entity; thus, the costing methods applied should be disclosed to external users of information about the entity under IAS 2/AASB 102, as discussed above. Note that LIFO, which produced the lowest profit ratios and the highest turnover, is not included as an acceptable method by the standard.

Note that, in times of rising prices, the FIFO method produces the highest gross profit ratio and profit margin, and the lowest inventory turnover, and the LIFO method produces the lowest gross profit ratio and profit margin, and the highest inventory turnover. The moving average method lies between these two extremes. As for the specific identification method, the three ratios can be manipulated merely by careful selection of the specific item to be sold. In relation to the example used in this chapter, figure 13.8 also shows that the specific identification method gives results between the FIFO system and the LIFO system. It is important for a decision maker, therefore, to interpret the entity's performance in light of the costing method being used.

LEARNING CHECK

☐ Different cost flow assumptions affect important ratios used in the decision-making process.

KEY TERMS

Additional mark-ups, p. 580
Average cost, p. 564
Consignee, p. 559
Consignment, p. 559
Consignor, p. 559
Current replacement cost, p. 573
DDP, p. 559
EXW, p. 559
First-in, first-out (FIFO), p. 562
Gross profit method, p. 580
Inventory, p. 558
Last-in, first-out (LIFO), p. 563
Lower of cost and net realisable value, p. 572
Mark-down cancellation, p. 580
Mark-downs, p. 580
Mark-up cancellations, p. 580
Moving average, p. 569
Net realisable value, p. 572
Periodic inventory system, p. 558
Perpetual inventory system, p. 558
Retail inventory method, p. 578

Specific identification, p. 562
Weighted average, p. 564

DISCUSSION QUESTIONS

1. What costs should be included in the cost of an item of inventory?
2. 'With sophisticated computer equipment available these days, the controversy over cost flow assumptions is no longer an issue.' Discuss.
3. Must a company use the inventory costing method that best conforms to the actual physical movement of the goods? Explain.
4. Critically examine the following statement: 'During times of high inflation, the LIFO cost assumption should be permitted in financial statements because it allows the entity to show a more up-to-date profit figure.'

5. Cottesloe Ltd has been using the FIFO costing method to account for inventories for several years. The company also has a policy of paying out all of its profits in cash dividends. What are the likely effects, adverse or otherwise, of continuing these policies?
6. 'Estimating the value of inventory is not sufficiently accurate to justify using such an approach. Only a full physical stocktake can give full accuracy.' Discuss.
7. 'Now that we have adopted the perpetual inventory system, we no longer need to conduct a costly and time-consuming stocktake'. Discuss.
8. Why is the lower of cost and net realisable value rule required by accounting standards? Is it permissible to revalue inventories upwards? If so, when? Are there any limits to revaluation?
9. If the ending inventory is understated because of an error, what is the effect on profit in that reporting year and in the next reporting year? What is the effect on the value of assets as reported in the balance sheet at the end of each year?
10. Why must decision makers consider various inventory costing methods when interpreting ratios used in retail operations?

EXERCISES

Exercise 13.1 DETERMINING ENDING INVENTORY

LO 1

Sapphire Ltd's ending inventory was assigned a cost of $55 200 by way of a physical inventory count on 31 December 2015. An audit of the company's records revealed the following information.

1. Sapphire Ltd had recorded a $4500 invoice (net of GST) from a supplier for goods shipped EXW on 26 December 2015. The goods were not included in the physical inventory count because they had not yet arrived.
2. Sapphire Ltd had recorded a $2000 tax invoice (net of GST) from a supplier for goods shipped DDP on 28 December 2015. The goods were not included in the physical inventory count because they had not yet arrived.
3. Sapphire Ltd had goods valued at $6400 (net of GST) out on consignment on 31 December 2015 that were not included in the physical inventory count.
4. Sapphire Ltd also acts as a consignee. Consigned goods on hand on 31 December 2015 totalled $6100 (net of GST), and were included in the physical inventory count.
5. Sapphire Ltd purchased goods worth $5500 (net of GST), which were received on 30 December 2015 and included in the physical inventory count. The invoice from the supplier was not recorded until January.
6. Sapphire Ltd sold goods costing $800 for $1200 plus GST on 27 December 2015, DDP. The buyer received the goods on 5 January 2016. The sale was on credit and was recorded in 2015, and the goods were excluded from the physical inventory count.

Required

A. For each of the above, determine the effects on Sapphire Ltd's 31 December 2015 account balances.
B. What is the correct ending inventory?

Exercise 13.2 INVENTORY COST FLOW METHODS — PERIODIC INVENTORY SYSTEM LO 2

Inventories and purchases for the month of June for Glow Light Ltd are as follows:

Date	Detail	Units	Cost per unit	Total
June 1	Inventory	9 000	$18	$162 000
3	Purchase	8 500	$19	161 500
15	Purchase	13 000	$20	260 000
20	Purchase	15 500	$21	325 500
30	Inventory	18 000	—	—

Required

Determine the cost of sales for the month under the cost flow assumptions, based on the periodic inventory system.

1. FIFO
2. weighted average.

Exercise 13.3 LOWER OF COST AND NET REALISABLE VALUE LO 5

The inventory of Gordon Ltd contains the following items at 30 June 2015.

		Unit price	
Item type	Quantity	Cost	Net realisable value
3011	75	$ 3.00	$ 2.60
2507	30	7.00	8.50
601	20	30.00	27.00
4500	50	3.50	2.50
2825	40	6.00	7.00

Required

A. Determine the ending inventory value at 30 June 2015, applying the lower of cost and net realisable value rule to the individual items.
B. What effect did application of the rule rather than cost have on the financial statements of the company?

Exercise 13.4 NET REALISABLE VALUE LO 5

Value Vehicles is a car dealership. One of its models was used as a demonstrator during the year. Presented below is information relating to the demonstrator as of 30 June 2016, the end of the current financial year.

Normal sales price (net of GST)	$29 990
Original cost (net of GST)	22 000
Estimated sales value in existing condition	23 500
Estimated selling and disposal cost	1 800

Required

From the information above, determine the value at which the demonstrator should be reported in the 30

June 2016 financial statements. Is there any effect on profit reported for the current period? Explain.

Exercise 13.5 INVENTORY COST METHODS — PERPETUAL INVENTORY SYSTEM LO 3

The following information relates to the inventory of Gadgets Ltd during May:

May	1	Beginning Inventory	80 units @ $7
	3	Purchased	90 units @ $8
	10	Purchased	110 units @ $9
	12	Sold	90 units
	17	Sold	80 units
	25	Sold	30 units

Gadgets Ltd uses a perpetual inventory system. Ignore GST.

Required

Determine the cost of the ending inventory (assuming there have been no stock losses) and the cost of sales, using the following three methods:

1. the moving average; round unit cost to the nearest cent
2. specific identification; assume that the ending inventory on 31 May consisted of 13 units from the beginning inventory, 24 units from the 3 May purchase, and the remainder from the 10 May purchase
3. FIFO.

Exercise 13.6 FIFO AND AVERAGE COST FLOW METHODS — PERIODIC AND PERPETUAL INVENTORY SYSTEMS LO 2, 3, 4

The following information relates to the inventory of a bookseller in the records of Bayside Books Ltd, a company registered for GST. All unit prices below exclude GST.

July	1	Beginning Inventory	8 @ $35 = $280
Aug.	14	Purchased	11 @ $38 = $418
Sept.	25	Sold	9
Jan.	8	Purchased	10 @ $40 = $400
March	3	Purchased	5 @ $42 = $210
April	13	Sold	11
June	10	Sold	3

Required

1. Using a periodic system and the weighted average method, calculate the cost of the 11 items in inventory on 30 June and the cost of sales for the year.
2. Using a perpetual system and the moving average method, calculate the cost of the year-end inventory and the cost of sales.
3. Using a periodic system and the FIFO method, determine the cost of the 11 items in inventory on 30 June and the cost of sales for the year.
4. Using a perpetual system and the FIFO method, determine the cost of the year-end inventory and the cost of sales.
5. Compare the results obtained under requirements A, B, C and D above.

Exercise 13.7 FIFO AND MOVING AVERAGE METHODS — PERPETUAL INVENTORY SYSTEM LO 3, 4

Chelsea's Cameras Ltd records its inventory of digital cameras by using a perpetual inventory system on a FIFO basis. The following details are supplied for one particular popular make and model for the month of November. Ignore GST.

Nov. 1 Inventory on hand consisted of 18 cameras costed at $160 each.

Purchases:

Nov. 2 10 cameras at $150 each
20 20 cameras at $165 each
25 30 cameras at $158 each

Sales:

Nov. 4 16 cameras at $290 each
22 22 cameras at $290 each
29 20 cameras at $310 each

Required

A. Prepare an inventory record showing the above transactions.
B. Assuming instead that the company uses the moving average method of recording cost of sales, calculate the cost of sales and ending inventory balance for the month of November and compare your answers with those from requirement A.

Exercise 13.8 PERPETUAL INVENTORY SYSTEM AND PHYSICAL STOCKTAKES LO 3

Bristols Bicycles maintains inventory records under the perpetual inventory system. At 30 June 2015, the inventory balance determined by the system showed a value of $300 000. However, on conducting a physical stocktake, ending inventory was calculated as being only $260 000. An investigation revealed that the difference was due to two factors:

- bicycle theft, amounting to $32 000
- destruction of parts on bicycles exhibited in the shop, $8000.

Bicycle sales for the year amounted to $1 000 000, purchases were $560 000 and the balance of inventory on hand at the beginning of the year was $220 000.

Required

Prepare the Cost of Sales and Inventory Control ledger accounts for the year ended 30 June 2015.

Exercise 13.9 FIFO AND GROSS PROFIT RATIO — PERPETUAL INVENTORY SYSTEMS LO 3, 10

Soakwell Supplies Ltd manufactures and sells soakwells for use in suburban and light industrial areas of Perth. Over the past year, the cost of manufacturing the soakwells has gradually risen and the company has been required to increase inventory levels to meet expected demand in the new year, which has been forecast to bring better-than-average rainfall. At 1 July 2015, the company had 40 soakwells on hand, which had cost $200 each to make. The selling price of each soakwell remained at $400 in 2015 but was raised to $470 in 2016. Ignore GST.

During the year ended 30 June 2016, details of soakwells completed and sold are as follows:

Soakwells manufactured:

2015		
Aug.	31	45 at $220 each
Oct.	31	55 at $240 each
2016		
Jan.	31	65 at $270 each
May.	31	85 at $300 each

Soakwells sold:

2015

Sept.	30	50
Nov.	30	65
2016		
Feb.	28	75
June	30	70

Required

A. Prepare the perpetual inventory record for soakwells for the year on the basis of FIFO.
B. How much gross profit has been generated for the year from the sale of soakwells?
C. What is the gross profit ratio achieved by the company in the year ended 30 June 2016?
D. What value is placed on the inventory of soakwells at 30 June 2016?

Exercise 13.10 EFFECTS OF INVENTORY ERRORS LO 7

Toowoomba Irrigation Ltd began operations in the south-east Queensland region in July 2012. During the annual audit for the year ended 30 June 2017, it was discovered that errors had been made in the annual physical stocktake. Further investigation revealed the following details for the years ended 30 June.

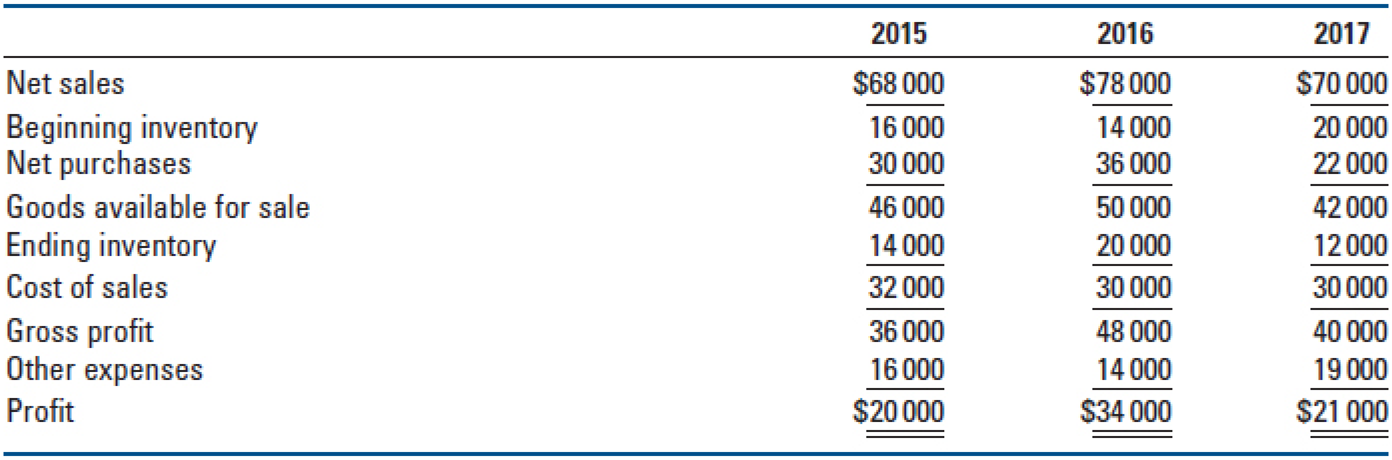
2013: Ending inventory was undervalued by $60 000.
2014: Ending inventory was overvalued by $15 000.
2015: Ending inventory was undervalued by $40 000.
2016: Ending inventory was correctly valued.
2017: Ending inventory was overvalued by $30 000.

Required

Explain the effects that these errors would have on the profit figure and ending asset balances for each year, and determine the cumulative effect of these errors over the 5-year period.

Exercise 13.11 EFFECTS OF INVENTORY ERRORS LO 7, 9

Brown Brothers's income statements for the past 3 years are as shown:



	2015	2016	2017
Net sales	$68 000	$78 000	$70 000
Beginning inventory	16 000	14 000	20 000
Net purchases	30 000	36 000	22 000
Goods available for sale	46 000	50 000	42 000
Ending inventory	14 000	20 000	12 000
Cost of sales	32 000	30 000	30 000
Gross profit	36 000	48 000	40 000
Other expenses	16 000	14 000	19 000
Profit	$20 000	$34 000	$21 000

Because of errors, the 2015 ending inventory is understated by $2000 and the 2016 ending inventory is overstated by $6000. The 2017 ending inventory is correct.

Required

A. Determine the correct amount of profit for each of the 3 years.
B. Determine the total profit for the 3-year period as shown and as corrected.

Exercise 13.12 RETAIL INVENTORY AND GROSS PROFIT METHODS LO 8

Part A

Branxton Ltd's inventory on 1 April 2015 had a cost of $100 000 and a retail value of $170 000. During

April, the company’s net purchases cost $216 000 and had a net retail value of $324 000. Net sales for April totalled $390 000. Ignore GST.

Required

A. Calculate estimated cost of inventory at 30 April 2015 using the retail inventory method.
B. What key assumptions underlie the validity of this estimate of inventory cost?

Part B

On 18 July, the warehouse storing the inventory of Thomas Ltd was destroyed by a fire. The insurance company asked the managing director to prove his inventory loss. Available records indicated that the beginning inventory was $320 000. Sales up to 18 July were $1 082 000, sales returns were $60 000, and it was company policy to mark up goods in such a way as to have a gross profit of 40%. Purchases totalled $920 000, purchases returns were $22 000, and freight inwards was $6800. Ignore GST.

Required

Determine the amount of Thomas Ltd’s claim for the inventory loss.

Exercise 13.13 RETAIL INVENTORY METHOD LO 8

Biancardi Ltd, a retail business, took a physical stocktake of inventory at retail price at the end of the current year and determined that the total retail value of the ending inventory was $190 000. The following information for the year is available:

	Cost	Selling price
Beginning inventory	$108 000	$160 000
Net purchases	486 000	740 000
Sales		704 000

Management estimates its inventory loss from theft and other causes by comparing its physical ending inventory at retail prices with an estimated ending inventory at retail prices (determined by subtracting goods available for sale at selling prices from sales) and reducing this difference to cost by applying the proper cost ratio.

Required

A. Calculate the estimated cost of the ending inventory using the retail inventory method. This is the inventory amount that will appear in the balance sheet, and the calculation should be based on the physical inventory taken at retail prices.
B. Calculate the estimated inventory loss for the year from theft and other causes.

Exercise 13.14 COST OF SALES UNDER FIFO LO 2, 3

Felton Ltd’s inventory transactions for November 2016 were as shown below:

Date	Transaction	No.	Unit cost	Total cost
Nov. 1	Inventory on hand	50	$11.00	$ 550.00
6	Purchase	170	12.00	2 040.00
10	Sale	90		
14	Purchase	90	13.00	1 170.00
18	Purchase return	30	13.00	390.00
23	Sale	135		
28	Sale return (on 23 November sale)	15		

Required

A. Using the information shown and assuming no losses of inventory, if Felton Ltd uses the periodic inventory system with the FIFO cost flow method, calculate the cost of sales for November 2016.

B. Using the information shown, if Felton Ltd uses the perpetual system with the moving average cost flow method, what would be the unit cost of the 23 November sale?

Exercise 13.15 EFFECTS OF INVENTORY ERRORS LO 7

A. Explain the effect of each of the following errors in the ending inventory of a retail business.
   1. Incorrectly included 100 units of Commodity A, valued at $1 per unit, in the ending inventory; the purchase was recorded.
   2. Incorrectly included 200 units of Commodity B, valued at $2 per unit, in the ending inventory; the purchase was not recorded.
   3. Incorrectly excluded 300 units of Commodity C, valued at $3 per unit, from the ending inventory; the purchase was recorded.
   4. Incorrectly excluded 400 units of Commodity D, valued at $4 per unit, from the ending inventory; the purchase was not recorded.

B. In determining the unit cost for inventory purposes, discuss how the following items should be treated.
   1. Freight on goods and materials purchased
   2. Purchase returns
   3. Discount received

PROBLEMS

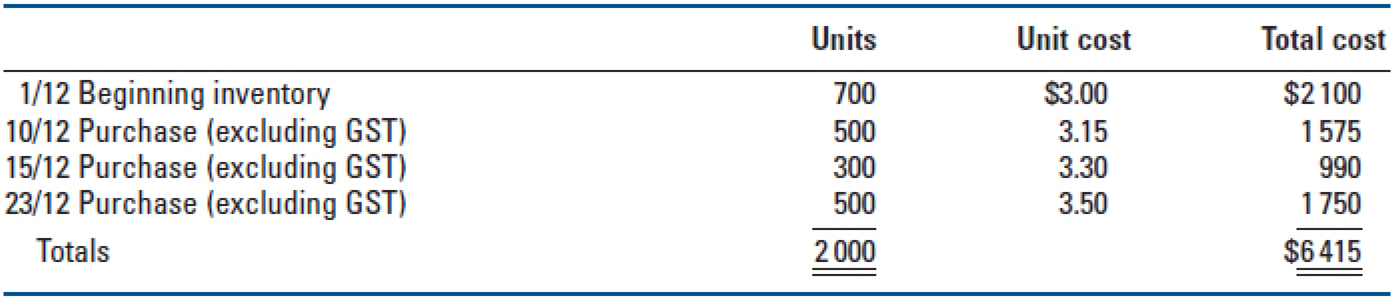
Basic

Moderate

Challenging

Problem 13.1 INVENTORY COST FLOW METHODS — PERIODIC INVENTORY SYSTEM LO 2, 4, 9

The following information relates to the inventory of Margaret's Megamart Ltd during December.



	Units	Unit cost	Total cost
1/12 Beginning inventory	700	$3.00	$2 100
10/12 Purchase (excluding GST)	500	3.15	1 575
15/12 Purchase (excluding GST)	300	3.30	990
23/12 Purchase (excluding GST)	500	3.50	1 750
Totals	2 000		$6 415

Margaret's Megamart Ltd uses the periodic inventory system. During the month, 1300 units were sold for $5525 plus GST. A physical count on 31 December verified that 700 units were on hand.

Required

A. Prepare an income statement down to gross profit for December, using each of the following costing methods:
   1. specific identification, assuming that 400 units were sold from the beginning inventory, 400 units from the first purchase, 200 units from the 15 December purchase, and the remainder from the 23 December purchase
   2. FIFO
   3. LIFO
   4. weighted average.

B. Which cost flow method(s) resulted in the highest gross profit on sales? the highest ending inventory? Explain your results.

C. Prepare an income statement down to gross profit for December, using FIFO and LIFO costing methods and assuming the 23 December purchase had been delayed until January.

D. The management of Margaret's Megamart Ltd expects the unit cost to increase to $3.90 excluding GST early in the next period. In anticipation of the price increase, a purchase of 600 additional units was made on 29 December at a unit cost of $3.65 excluding GST. Prepare an income statement down to gross profit for December, using the FIFO and LIFO costing methods.

E. Compare your results obtained in requirements A, C and D. Explain why your results are or are not the same.

Problem 13.2 SPECIFIC IDENTIFICATION — PERIODIC INVENTORY SYSTEM LO 2, 9

Weston's Washers Ltd buys and sells brand-name washing machines, which are identified by the manufacturer's initials and model number.

The inventory on 1 July 2015 is as follows:

Identification number	Quantity	Unit cost	Selling price
WES301	3	$880	$1 150
EMA4256	4	920	1 350
F&P111	4	800	1 199
KEL633	3	700	900
MAL720	5	600	800

All cost and selling prices exclude GST of 10%. Purchases and sales for July follow:

July	1	Purchased 3 KEL633.
	5	Sold 2 EMA4256.
	8	Purchased 4 WES301.
	9	Sold 3 MAL720.
	11	Sold 1 F&P111.
	15	Purchased 4 WES301.
	20	Sold 2 KEL633.
	23	Sold 5 WES301.

Weston's Washers Ltd uses the specific identification method to account for its inventory. All transactions were on credit and the unit cost of purchases and per-unit selling price for July were the same as given for the beginning inventory.

Required

A. Prepare entries to record the 8 July purchase and the 20 July sale under the periodic inventory system method. Purchases and sales are subject to GST.

B. Calculate the cost of sales for July.

C. Calculate the cost of ending inventory on 31 July 2015.

D. Prepare an income statement for July based on the periodic inventory system.

Problem 13.3 RETAIL INVENTORY METHOD LO 8

Redfern Retailers provided the following information for the month of June 2016. The entity uses the retail inventory method for interim reporting purposes. Normal mark-up on cost is 60%. Ignore GST.

Beginning inventory (cost)	$8 000
Net purchases (cost)	$10 000
Sales	$20

	000
Mark-downs (some items still in stock)	900
Mark-down cancellations (some items still in stock)	120
Additional mark-ups (some items affected still in stock)	260
Staff discounts (on items sold)	500

Required

Redfern Retailers requests that an estimate be made of inventory on hand at cost at 30 June 2016. Provide this estimate.

Problem 13.4 GROSS PROFIT METHOD **LO 8**

An explosion at Fenshaw's Pharmaceuticals on the night of 15 May destroyed the entire inventory. The accounting records, which survived the explosion, contained the following account balances for the period 1 January to 15 May:

Sales	$330 700
Sales returns and allowances	4 200
Purchases	285 000
Purchases returns and allowances	3 150
Freight inwards	2 400
Inventory balance, 1 January	59 300

The gross profit margin has averaged 42% over the last 3 years. Ignore GST.

Required

Estimate the cost of inventory that was destroyed, for insurance purposes.

Problem 13.5 LOWER OF COST AND NET REALISABLE VALUE **LO 5**

The following information applies to the inventory of Carson's Camera Store as at 30 June 2016:

		Unit price (excluding GST)	
Model number	**Quantity**	**Actual cost**	**Net realisable value**
Cameras:			
A-4	18	$ 95	$ 75
C-7	12	100	120
G-1	20	65	60
Z-8	6	50	55
Video equipment:			
BD-5	15	180	190
FY-9	10	240	220

Required

A. Calculate the ending inventory value as at 30 June 2016, applying the lower of cost and net realisable value rule to:
   1. individual inventory items

2. major categories of cameras and video equipment
3. total inventory.

B. What effect does application of the lower of cost and net realisable value rule have on the financial statements of the business?
C. Assume that at the end of the next financial year, 12 units of model A-4 are still on hand and the net realisable value is $80 per unit. How would this increase in net realisable value affect the inventory value of the 12 units?
D. How would the increase in net realisable value in requirement C be treated in the accounting records?

Problem 13.6 LOWER OF COST AND NET REALISABLE VALUE LO 3, 4, 5

The information below relates to barrels of oil held in the inventory of Olsen's Ltd during 2015.

		Barrels	Unit cost
Jan. 1	Beginning inventory	30 000	$44
April 15	Purchases	40 000	44
May 13	Sales ($52 per barrel)	(50 000)	
Aug. 9	Purchases	35 000	44
Oct. 28	Sales ($52 per barrel)	(40 000)	

Owing to an oil glut, the net realisable value for a barrel of the same grade of oil was $40 per barrel on 31 December 2015. In 2016, the company disposed of the 15 000 barrels of oil in the ending inventory for $600 000. No additional purchases were made in 2016. Olsen's Ltd uses a periodic inventory system and the average cost flow method. Ignore GST.

Required

Complete the partial income statements for 2015 and 2016 shown below under the average cost flow method and the lower of cost and net realisable value rule.

	Average cost		Lower of cost and net realisable value	
	2015	2016	2015	2016
Sales revenue	______	______	______	______
Cost of sales:				
Beginning inventory	______	______	______	______
Purchases	______	______	______	______
Cost of goods available for sale	______	______	______	______
Less: Ending inventory	______	______	______	______
Cost of sales	______	______	______	______
Gross profit	______	______	______	______

Problem 13.7 FIFO METHOD — PERPETUAL INVENTORY SYSTEM LO 3, 9

Tamworth Trading Ltd is a company operating in the retail sector. The beginning inventory of Product EF5089 and information about purchases and sales made during June are shown below:

June	1	Inventory	6100 units@ $2.20
	4	Purchases	4600 units@ 2.25
	9	Sales	4100 units
	12	Purchases	4100 units@ 2.40
	21	Sales	3100 units
	24	Sales	2900 units
	26	Purchases	3100 units@ 2.50
	30	Sales	2600 units

Tamworth Trading Ltd uses the perpetual inventory system, and all purchases and sales are on credit. Selling price is $5 per unit. GST is 10% and is not included in any of the costs and selling prices above. A stocktake on 30 June revealed 5150 units in inventory.

Required

A. Using the FIFO method, prepare appropriate purchases and sales journals to record these events.
B. Prepare an appropriate inventory record for Product EF5089 for June, and post the journals prepared in requirement A above to the appropriate general ledger accounts (assuming that product EF5089 is the only product bought and sold by Tamworth Trading Ltd).
C. Prepare an income statement for Tamworth Trading Ltd for June.

Problem 13.8 COST OF SALES — FIFO AND MOVING AVERAGE **LO 3, 9**

The following information has been extracted from the records of Steven's Stationery about one of its popular products. Steven's Stationery uses the perpetual inventory system. The end of the reporting period is 31 December. Ignore GST.

			No. of units	Unit cost
2015				
Jan.	1	Beginning balance	900	$7.00
	6	Purchases	400	
Feb.	5	Sales @ $12.00 per unit	1 000	7.05
March	17	Purchases	1 100	7.35
April	24	Purchases returns	80	7.35
May	4	Sales @ $12.10 per unit	700	
June	26	Purchases	8 400	7.50
Aug.	11	Sales @ $13.25 per unit	1 800	
	19	Sales returns @ $13.25 per unit	20	
Sept.	11	Sales @ $13.50 per unit	3 500	
Oct.	6	Purchases	500	8.00
Dec.	11	Sales @ $15.00 per unit	3 100	

Required

A. Calculate the cost of inventory on hand at 31 December 2015 and the cost of sales for the year ended 31 December 2015, assuming:
   - the FIFO cost flow assumption
   - the moving average cost flow assumption (round average unit costs to the nearest cent, and total cost amounts to the nearest dollar).
B. Prepare the income statement to gross profit for the year ended 31 December 2015, assuming:
   - the FIFO cost flow assumption
   - the moving average cost flow assumption.

Problem 13.9 COST OF SALES — PERIODIC INVENTORY SYSTEM **LO 2, 4**

The following information relates to the inventory of Harry's Hardware during the month of December:

			Units	Unit cost	Total cost
Dec.	1	Beginning inventory	500	$5.00	$2 500
	10	Purchases	500	5.30	2 650
	23	Purchases	600	5.60	3 360
			1 600		$8 510

Harry's Hardware uses the periodic inventory system. During the month, 700 units were sold for $6300. A physical stocktake on 31 December verified that 590 units were on hand. Ignore GST.

Required

A. Prepare an income statement up to gross profit for December using each of the following costing methods:
   1. specific identification, assuming that 300 units were sold from the beginning inventory and 400 units were sold from the first purchase
   2. FIFO
   3. LIFO
   4. weighted average.

B. Which cost flow method resulted in the highest gross profit on sales? the highest ending inventory? Explain why your results differ.

C. Prepare an income statement to gross profit for December using the FIFO and LIFO costing methods, assuming the 23 December purchase had not been made and the ending physical inventory count was 90 units.

D. Management of Harry's Hardware is expecting the unit cost to increase to $6.00 early in the next period. In anticipation of the price increase, a purchase of 600 additional units was made on 29 December at a unit cost of $5.80. Assume the ending physical inventory count was 1190 units. Prepare an income statement to gross profit for December using the FIFO and LIFO costing methods.

E. Compare your results obtained in requirements A, C and D. Explain why your results are or are not the same.

Problem 13.10 CORRECTION OF INVENTORY ERRORS **LO 7**

Thomas Turnbull, who operates a business as a toy retailer, was concerned about the end-of-year physical stocktake and 'cut-off' procedures.

The Inventory Control account balance at 30 June 2015, under the perpetual inventory system, was $77 200. The physical stocktake count, however, revealed the cost of inventory on hand at 30 June 2015 to be only $73 400. Although Thomas expected some inventory shortfall because of breakage and petty theft, he considered this shortfall to be excessive.

Net realisable value for each inventory item held for sale exceeds cost.

In investigating the reason for the inventory 'shortfall', Thomas discovered the following.

1. Goods costing $800 were sold on credit to A. Anderson for $1500 on 26 June 2015 on DDP terms. The goods were still in transit at 30 June 2015. Thomas had recorded the sale on 26 June 2015 and did not include these goods in the physical stocktake.
2. Thomas included $2200 of goods held on consignment in the physical stocktake.
3. Goods costing $910 were purchased on credit from Toy Train Trader on 26 June 2015 and received on 28 June 2015. The purchase was unrecorded at 30 June 2015, but the goods were included in the physical stocktake.
4. Goods costing $400 were purchased on credit from Toy Town Supplies on 23 June 2015 on EXW shipping terms. The goods were delivered to the transport company on 27 June 2015. The purchase was recorded on 27 June 2015 but, as the goods had not yet arrived, Thomas did not include these goods in the physical stocktake.
5. At 30 June 2015, Thomas had unsold goods costing $3700 out on consignment. These goods were not included in the physical stocktake.

6. Goods costing $2100 were sold on credit to Kids Corner Playcentre for $3800 on 24 June 2015 on EXW shipping terms. The goods were shipped on 28 June 2015. The sale was unrecorded at 30 June 2015 and Thomas did not include these goods in the physical stocktake.

Required

Prepare any journal entries necessary on 30 June 2015 to correct any errors and to adjust inventory.

Problem 13.11 PERPETUAL INVENTORY SYSTEM AND INVENTORY ERRORS LO 3, 7

Part A

Beyer Ltd is registered for GST, balances its accounts at month-end, uses special journals, and uses the perpetual inventory system with the FIFO cost flow assumption. All purchases and sales of inventory are made on credit. End of the reporting period is 30 June. Sales and purchases (all net of GST) of product JINX-87 in May 2016 were:

Date		Transaction	No.	Unit cost
May	1	Inventory on hand	50	$10
	7	Purchase	20	$11
	11	Sale @ $35/unit	54	
	17	Purchase	30	$12
	21	Purchase return	10	$11
	24	Sale @ $36/unit	30	
	29	Sale return (on 24 May sale)	8	

Required

For product JINX-87, calculate May 2016's cost of sales and the cost of inventory on hand at 31 May 2016, using an inventory record.

Part B

The inventory ledger account balance at 30 June 2016 was $7650, and net realisable value for each product line exceeded cost. The cost of inventory on hand at 30 June 2016 determined by physical count, however, was only $7578. In investigating the reasons for the discrepancy, Beyer Ltd discovered the following.

- Goods costing $87 plus GST were sold for $100 plus GST on 26 June 2016 on DDP shipping terms. The goods were in transit at 30 June 2016. The sale was recorded on 26 June 2016 and the goods were not included in the physical count.
- Goods costing $90 plus GST were ordered on 24 June 2016 on EXW shipping terms. The goods were delivered to the transport company on 27 June 2016. The purchase was recorded on 27 June 2016 but, as the goods had not yet arrived, the goods were not included in the physical count.
- Goods costing $140 (excluding GST) held on consignment for Richmond Ltd were included in the physical count.

Required

Prepare any journal entries required on 30 June 2016 to correct error(s) and to adjust the inventory account. (Use the general journal.)

Problem 13.12 PERPETUAL INVENTORY SYSTEM WITH RETURNS LO 3, 6

During the year ended 30 June 2016, Laing Ltd sold each unit of its goods at $9. Purchases and sales of the goods are shown below. Ignore GST.

2015			
July	1	Inventory on hand	210 units @ $5.00 each
	30	Sales	125 units
Aug.	25	Purchases	320 @ $5.25
	30	Sales	260 units
Sept.	3	Purchases	450 units @ $5.30
	10	Purchases returns	50 damaged units from 3 September purchase
	30	Sales	300 units
Oct.	5	Purchases	300 units @ $5.40
Dec.	8	Purchases	250 units at $5.45
	11	Sales	500 units
2016			
Feb.	21	Purchases	150 units @ $5.50
March	18	Purchases	100 units at $5.60
April	30	Sales	300 units
May	2	Sales returns	30 units from 30 April sales, goods returned to inventory
	4	Purchases	250 units @ $5.70
June	6	Purchases	300 units @ $5.85
	30	Sales	460 units

Laing Ltd uses a perpetual inventory system.

Required

A. Using dollars and cents in appropriate inventory records, determine the cost of the inventory at 30 June 2016 under the following inventory cost flow assumptions:
   1. FIFO
   2. moving average (round to the nearest cent).

B. Assuming that a physical count at 30 June 2016 determined that only 325 units remained in inventory, prepare the journal entry to record the fact that some units had gone missing.

C. Using the moving average method, prepare the Inventory Control, Cost of Sales and Sales accounts (T-account format), assuming that these accounts are balanced yearly on 30 June. Assume as well that the physical count of inventory was as mentioned in requirement B above.

Problem 13.13 INVENTORY COST FLOW METHODS — PERIODIC AND PERPETUAL — AND RETURNS **LO 2, 3, 6**

The purchases and sales of Big Flower Pty Ltd of one brand of lawn fertiliser for the year ended 31 December 2016 are contained in the schedule below.

The selling price up to 30 June was $12 per unit but was raised to $14 for the rest of the year. Ignore GST.

Required

A. Prepare the income statement up to the gross profit stage under the following cost flow assumptions:
   1. periodic inventory
      (a) FIFO
      (b) weighted average
   2. perpetual inventory
      (a) FIFO
      (b) moving average.

B. If 10 of the units sold on 9 October were returned and placed back into inventory, how would this affect profits calculated under requirements A2(a) and A2(b) above?

C. If 5 of the units purchased on 11 December were returned to the supplier, how would this affect profits calculated under requirements A2(a) and A2(b) above?

	Purchases			Sales			Balance		
Date	Units	Unit cost	Total	Units	Unit cost	Total	Units	Unit cost	Total
Jan. 1							80	$5.00	$400
7				40					
30	50	$5.10	$255						
Feb. 2				27					
20	60	5.20	312						
28				50					
Mar. 16	25	5.20	130						
24	30	5.30	159						
27				20					
Apr. 7				23					
15	40	5.35	214						
18				50					
May 4	30	5.30	159						
June 2	20	5.40	108						
26				40					
July 27	30	5.40	162						
Aug. 6				50					
31	60	5.50	330						
Sept. 11				20					
26	40	5.50	220						
Oct. 9				60					
Nov. 4	40	5.60	224						
30				30					
Dec. 11	20	5.65	113						
27				10					

Problem 13.14 COST OF SALES

LO 3, 7

Pet and Produce Ltd balances its books at month-end, uses special journals, and uses the perpetual inventory system with the moving average cost flow assumption. All purchases and sales of inventory are made on credit. The end of the reporting period is 31 December. Ignore GST.

Sales and purchases of product AZL-002 in October 2015 were:

Date	Transaction	No.	Unit cost	Total cost
Oct. 1	Inventory on hand	52	$12.00	$624
8	Purchase	30	$13.00	$390
10	Purchase return	10	$13.00	$130
13	Sale @ $15/unit	36		
16	Sale return (on Oct. 13 sale)	12		
20	Purchase	50	$14.00	$700
26	Sale @ $16/unit	42		

Accounts Receivable Control and Accounts Payable Control ledger account balances at 31 October 2015 were $86 600 Dr and $82 470 Cr respectively.

Transactions involving Pet and Produce Ltd's customers and suppliers for November 2015 were:

Inventory sales	$112 930

Inventory purchases	137 440
Cash payments to suppliers	139 820
Cash receipts from customers	117 470
Discount received from suppliers	3 080
Discount allowed to customers	2 760
Nov. 13: Inventory (not yet paid for) returned by customer	8 100
Nov. 19: Inventory (paid for) returned to supplier	4 130
Nov. 22: Inventory (not yet paid for) returned to supplier	6 170
Nov. 26: Offset of accounts receivable and payable recorded	3 940
Nov. 29: Debt written off	5 160

The Inventory Control ledger account balance at 31 December 2015 was $85 590, and net realisable value for each product line exceeded cost. The cost of inventory on hand at 31 December 2015 determined by physical count, however, was only $83 510. In investigating the reasons for the discrepancy, Pet and Produce Ltd discovered the following.

- Goods costing $1150 were ordered on 26 December 2015 on EXW terms. The transport firm took possession of the goods from the supplier on 28 December 2015. The purchase was recorded on 28 December 2015 but, as the goods had not yet arrived, the goods were not included in the physical count.
- $1860 of goods held on consignment for Druin Ltd were included in the physical count.
- Goods costing $980 were sold for $1130 on 29 December 2015 on DDP terms. The goods were in transit at 31 December 2015. The sale was recorded on 28 December 2015 and the goods were not included in the physical count.

Required

A. For product AZL-002, calculate October 2015's cost of sales and the cost of inventory on hand at 31 October 2015. (Round each average unit cost to the nearest cent, but round each total cost amount to the nearest dollar.)
B. Prepare the Accounts Receivable Control and Accounts Payable Control general ledger accounts (T-format) for the period 31 October to 30 November 2015.
C. Prepare any journal entries necessary on 31 December 2015 to correct error(s) and adjust inventory. (Use the general journal.)

Problem 13.15 EFFECTS OF INVENTORY ERRORS **LO 1, 7**

The income statements for Campbell's Camping Ltd for the year ended 31 December for 2 years are shown at the top of the next page.

	2015	2016
Sales revenue	$325 000	$400 000
Cost of sales:		
Beginning inventory	68 000	100 000
Purchases	200 000	220 000

Goods available for sale	268 000	320 000
Ending inventory	100 000	90 000
Cost of sales	168 000	230 000
Gross profit	157 000	170 000
Other expenses	91 000	1 000
Profit	$66 000	$71 000

The following information has been discovered concerning 2015.

1. On 23 December, Campbell's Camping Ltd recorded goods purchased at a cost of $2000 plus GST. The terms were EXW. The goods were delivered by the seller to the transport company on 27 December. The goods were not included in the ending inventory because they had not arrived.
2. Campbell's Camping Ltd sells goods that it does not own on a consignment basis. Consigned goods on hand at year-end were included in inventory at a cost of $6000 (excluding GST).
3. A purchase of goods worth $4500 plus GST was made in December, but not recorded until January. The goods were received on 28 December and included in the physical inventory.
4. A sale of goods costing $2000 net of GST was made and recorded in December. Since the buyer requested that the goods be held for later delivery, the items were on hand and included in inventory at year-end.
5. Campbell's Camping Ltd sold goods costing $1400 for $2000 plus GST on 26 December. The terms were DDP. The goods arrived at the destination in January. The sale was recorded in 2015, and the goods were excluded from the ending inventory.

Required

A. Determine the correct ending inventory figure for 31 December 2015.
B. Prepare revised income statements for 2015 and 2016.
C. Determine the total profit for the 2-year period, both before and after the revisions. Why are these figures similar or different?

DECISION ANALYSIS

Inventory and computer retailing

During January 2016, Preston's Personal Computers, a retailer of personal computers, began operations. The transactions for January were as shown below (ignore GST).

Jan. 5 Purchased eight computers for $1300 each.
8 Sold three computers for $2500 each.
10 Purchased three computers for $1400 each.
13 Sold one computer for $2500.
16 Sold two computers for $2500 each.
22 Purchased four computers for $1500 each.
25 Sold two computers for $2600 each.

Other expenses for the month were $1200.

Required

A. Record the information on a perpetual inventory record using each of the following methods:
   1. FIFO

    2. moving average
    3. LIFO.

B. Prepare an income statement based on each of the three methods of inventory cost flows.

C. Give reasons to the manager of Preston's Personal Computers for the variations in cost of sales and profit in the three statements.
D. What factors should be considered in choosing an inventory cost flow method? Make a recommendation to management on the appropriate cost flow method to use in this business.
E. Assume that the manager wants to purchase another computer before the end of the month, but asks you first (a) how that will affect the profit for the month, and (b) whether the purchase should be deferred until early February. The purchase price would not change. What would you recommend?

CRITICAL THINKING

Inventory values in financial statements

During an audit of the inventory records of Winthrop Ltd for the year ended 30 June 2016, the auditor discovered that the ending inventory balance was overvalued by $36 000. On further investigation, it was discovered as well that the ending inventory for the previous year was correctly counted and valued, but that the inventory balance as at 30 June 2014 was undervalued by $100 000. Spurred on by the concern for errors undetected in previous periods, a thorough investigation was carried out as to the inventory values shown in the company's financial statements during its 5-year history. The following additional errors were detected.

1. As at 30 June 2013, inventory was overvalued by $10 000.
2. As at 30 June 2012, inventory was undervalued by $60 000.

Required

A. Determine the effects that these errors have had on the company's profit figures in each year, beginning in the year ended 30 June 2012.
B. Determine the effect of the inventory errors on the balance sheet over the total time period. Show the cumulative impact on the company's retained earnings.

COMMUNICATION AND LEADERSHIP

Inventory errors

The manager of Felicity's Fashions Ltd, importer and wholesaler of fashion clothing for women, has been investigating the inventory levels of the business at the end of the previous year ended 30 June 2014. She discovered, in consultation with the purchasing department, that an error had been made in the physical count on that date, which resulted in the inventory balance being overstated by $800 000. She also discovered that the inventory balance at 30 June 2015 had been correctly determined. She commented to the accountant that the profit figure for the year ending 30 June 2015 should also be correct, and that there is no point worrying about the error of $800 000 anymore.

Required

Assume that you are the accountant for Felicity's Fashions Ltd. In discussion with two or three other members of the 'accounting department' of the business (other students), draft a memo to the manager clarifying the situation and assessing the truth of the manager's remarks.

FINANCIAL ANALYSIS

Refer to the consolidated financial statements in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. What value is placed on the consolidated group's inventories at the end of the current year?
2. Determine the accounting policies used by JB Hi-Fi Limited for the valuation of inventories. Briefly outline the features of the system used.

3. Were any inventories valued using the lower of cost and net realisable value rule? If so, what value is placed on these inventories?
4. How much is reported as the cost of sales for the group of companies?

CHAPTER 14

Non-current assets: acquisition and depreciation

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the concept and purpose of the accrual basis, going concern, and period assumptions (pp. 44–8)
- the nature of an expense (p. 41)
- how to prepare adjusting entries for depreciation (pp. 138–9).

Learning Objectives

After studying this chapter, you should be able to:

1 explain the nature of property, plant and equipment (p. 602)
2 compute the cost of property, plant and equipment (pp. 602–4)
3 apportion the cost of a lump-sum payment for multiple asset acquisitions (pp. 604–5)
4 describe the basics of the acquisition of assets under a lease agreement (pp. 605–6)
5 discuss the nature of depreciation and determine the amount of depreciation expense using several different cost allocation methods (pp. 606–14)
6 describe how to account for subsequent costs incurred in relation to property, plant and equipment (pp. 614–17)
7 record property and plant records in the property and plant subsidiary ledger (pp. 618–19)
8 illustrate the reporting requirements for property, plant and equipment and depreciation in an entity's financial reports (pp. 619–20)

9 analyse and interpret information on property, plant and equipment and appreciate the critical nature and importance of management decisions in relation to property, plant and equipment (pp. 620–2).

New toll road to fame and fortune?

Just over a year into the top job, Transurban boss Scott Charlton has put excitement back into listed toll roads by positioning the company as the next owner of Sydney's Cross City Tunnel and flagging interest in buying the $4 billion-plus Queensland Motorways.

If Charlton can pull off both deals he will have created the most efficient toll road operator in the world and in the process achieved world dominance in the listed toll road operator space. It now owns all or part of nine toll roads in Sydney, Melbourne and the US.

He has also shown that the owner and operator model for toll roads can work, in sharp contrast to the litany of disasters over the past few years with traffic forecasts for toll roads by third parties inflated, resulting in several toll roads being placed in receivership, costing investors and banks billions of dollars.

In the case of the Cross City Tunnel, which was put into receivership in September for a second time in seven years, Charlton has pulled off a master stroke with the purchase of Royal Bank of Scotland's debt exposure to the toll road for $475 million, a significant discount to its estimated $612 million face value.

It was a smart deal on both sides because RBS is keen to reduce its debt before a December 31 calendar balance date and had decided that the Cross City Tunnel was one headache too many. RBS called in the receivers in September with a view to selling the asset and getting repaid.

Transurban has made no secret it would like to buy Cross City Tunnel — at the right price. The tunnel connects with Transurban's 75 per cent-owned Eastern Distributor motorway, which, combined with its ownership of key Sydney Motorway Network concessions such as the Eastern Distributor and the M5 South West motorway, gives it further advantages to leverage — and may present new opportunities to innovate around delivery.

Charlton's decision to go direct to RBS and negotiate to buy the debt at a discount to face value, puts it in the box seat to do what nobody else has been able to do: make money out of Cross City Tunnel.

Source: Excerpts from Ferguson, A 2013, 'New toll road to fame and fortune?', The Sydney Morning Herald, 12 November, www.smh.com.au.

14.1 The nature of property, plant and equipment

LO 1 **Explain the nature of property, plant and equipment.**

The terms ***property, plant and equipment*** and ***plant and machinery*** and ***plant assets*** are used in accounting to describe those non-current assets with physical substance acquired by an entity for use in the production or supply of goods and services rather than for resale to customers. Examples include land, buildings, equipment, machinery, storage facilities and motor vehicles. The term ***fixed assets*** is sometimes used to describe this category of assets.

Management's intention to use these assets for the future production of goods or services over several accounting periods is the main factor that distinguishes them from other assets. Since they have value in use, they are said to represent a store of economic benefits available for the future operations of the entity. Buildings contain future housing benefits, vehicles contain future transportation benefits, and computers contain future data processing benefits. All of these assets are expected to be used in the future to produce goods or services for sale to customers. Assets that have physical characteristics similar to those of property, plant and equipment but are not intended for future use to produce goods or services should not be included in the category. For example, construction equipment held by an equipment dealer is inventory, but the same type of equipment held by a construction company represents property, plant and equipment. Similarly, land held for future expansion or as an investment should be excluded from property, plant and equipment and be regarded as a long-term investment.

Under IAS 16/AASB 116 ***Property, Plant and Equipment***, any asset with physical substance which is expected to be used over more than 1 year ***must*** be recognised at its cost when it is probable that the future economic benefits will flow to the entity, and the cost of the asset can be measured reliably. (These recognition criteria are consistent with those for all assets under the ***Conceptual Framework***.) Because the future economic benefits contained in property, plant and equipment will be received over two or more accounting periods, the depreciable amount of these assets must be allocated in a systematic manner over their useful lives to measure depreciation. As assets are used to produce goods or services, their costs are transferred to depreciation expense to be deducted from the income produced by the sale of the goods or services according to the matching principle.

LEARNING CHECK

☐ Property, plant and equipment represent physical assets which are used by the entity to provide economic benefits over more than one accounting period.

☐ Property, plant and equipment have 'value-in-use' in that they are used by the entity for the future production of goods and services, rather than being sold by the entity.

14.2 Determining the cost of property, plant and equipment

LO 2 Compute the cost of property, plant and equipment.

Whenever an entity acquires an asset from an outside party, the accounting treatment for the acquisition is governed by IAS 16/AASB 116. According to the standard, in order to account for the acquisition of property, plant and equipment, the cost method must be used, whereby the assets acquired are initially recorded on recognition date at their **cost**, which is defined as the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction.

There is an important principle here. In order to determine the acquisition cost of a plant asset, the entity must measure the fair value of the items it has ***given up*** to acquire the asset, and ***not*** the fair value of the asset which is being acquired. **Fair value** is the price that would be received to sell an asset or amount paid to transfer a liability in an orderly transaction between market participants at the measurement date.

According to IAS 16/AASB 116, the cost of an item of property, plant and equipment comprises:

(a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; hence, GST is excluded because it is a refundable purchase tax

(b) any costs directly attributable to bringing the asset to the location and condition ***necessary*** for it to be used in the way management intended

(c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, if the entity is obliged to do so.

Examples of directly attributable costs, item (b) above are:

- costs of site preparation
- initial delivery and handling costs
- installation and assembly costs
- costs of testing whether the asset is functioning properly, after deducting the net proceeds of selling any items produced during the testing phase
- the costs of employee benefits, such as leave entitlements and superannuation, arising directly from constructing or acquiring the property, plant and equipment.

The inclusion of costs in the carrying amount of an item of property, plant and equipment ceases when the asset is in the location and condition ready for its intended use. It is only those costs which are necessarily incurred that should be included in the cost of the asset.

To illustrate, the acquisition cost of a machine includes its invoice price (minus trade discounts and any GST which is recoverable) plus directly attributable costs such as costs of site preparation, freight, insurance in transit, installation expenditures such as power connection, and any initial adjustments needed to make the machine function properly, including any spare parts that would be of no use if the asset were sold. Directly attributable costs also include any staff training costs to enable the asset to be used.

Assume, for example, the purchase of a machine at a list price of $22 000 including GST with trade discount of 10% and terms of 3/20, n/60. In addition, freight charges net of GST amount to $820, and installation expenditures net of GST amount to $675. The cost to be debited to the Machinery account is calculated as follows:

List price of the machine	$22 000
Less: Trade discount (10% × $22 000)	2 200
	19 800
Less: GST (1/11)	1 800
Purchase price	18 000
Freight inwards (net of GST)	820
Installation costs (net of GST)	675
Cost of machine	$19 495

The cost of an asset should not exceed the amount for which it could be acquired in a cash transaction plus the other expenditures necessary to get the asset ready for use. Any cash discounts received on terms should be credited to discount received (income) rather than deducted from the cost of the machine. The cost of a used or ***second-hand*** asset should include its purchase price net of GST plus initial expenditures made for repairs, new parts, paint and any other costs necessary to get the asset ready for use.

Care should be taken that only ***reasonable*** and ***necessary*** expenditures are included. Expenditures that could be avoided or that do not increase the future economic benefits of the asset should be excluded from its purchase price. For example, expenditures required to repair damage to an asset caused by carelessness during installation should be charged to an expense account rather than to the asset account.

When an item of property, plant and equipment is acquired, its cost must represent the cash price equivalent on the day it is recognised. Therefore, if the entity defers payment for the asset beyond normal credit terms, the difference between the cash price equivalent and the total payment is recognised as interest expense over the period. This interest expense is determined by using present value techniques to discount the deferred payment to its present value equivalent.

Whenever ***land*** is purchased, the cost of land includes the price paid to the seller (net of GST) plus the estate agent's commission and other necessary expenditures (net of GST) such as title-search and survey fees. If the buyer pays accrued rates and taxes on the property, they should also be included in the cost of the land. If the land contains a building that is to be demolished in order to construct a new building, the total purchase price plus the cost of removing the old building (less amounts received from the sale of salvaged materials) is included in the cost of the land. The cost of removing the old building is considered part of the land cost because it was incurred to get the land into condition for its intended use — the construction of a new building.

Although land is generally not depreciable because it has an unlimited life, some expenditures related to its acquisition and use, such as driveways, fences, parking lots and landscaping, do have limited lives and are properly depreciated. Consequently, these items are normally charged to a separate ***land improvements*** account and depreciated over their estimated useful lives. Some landscaping costs may create an asset with an indeterminate life. If so, these costs may be treated more appropriately as part of the cost of the land, rather than as land improvements.

When an entity ***constructs an asset for its own use***, the acquisition cost includes all expenditures (net of GST) incurred directly for construction, such as labour, materials and insurance paid during construction. The cost of buildings also includes architectural fees, engineering fees, building permits and excavation for the foundations. In addition, a reasonable amount of manufacturing overhead for such things as power, management supervision during construction, and depreciation on machinery used for construction should be included.

Sometimes, when an entity is constructing an asset for its own use, the entity is required to borrow large sums of money in order to finance the construction costs. In this situation, a question arises as to whether the **borrowing costs** incurred, namely interest and other costs incurred in connection with the borrowing of funds, should be treated as part of the acquisition cost. The regulators have issued IAS 23/AASB 123 ***Borrowing Costs*** to deal with this problem. The benchmark recommendation of the standard is that borrowing costs must be recognised as an expense (usually a finance expense) in the year in which they are incurred.

However, if borrowing costs are directly attributable to the acquisition, construction or production of a qualifying asset, the standard allows an alternative treatment for these borrowing costs — they may be included as part of the cost of that asset. A **qualifying asset** is defined as an asset that necessarily takes a substantial period of time, i.e. usually longer than 1 year, to get ready for its intended use or sale. Thus, a qualifying asset may be part of the entity's property, plant and equipment, or part of its inventories, as long as such items take a considerable period of time to produce. If, under the allowed alternative treatment, borrowing costs are to be included as part of the cost of acquiring the qualifying asset, then borrowing costs are to be measured at the costs that would have been avoided if the expenditure on the qualifying asset had not been made, according to IAS 23/AASB 123.

LEARNING CHECK

- ☐ The measurement of the initial cost of property, plant and equipment must include not only the purchase price but also costs directly attributable to getting the asset to a location and condition ready for use.
- ☐ In constructing an asset for its own use, the entity can include borrowing costs as part of the initial cost of the asset if the asset is a qualifying asset.

14.3 Apportioning the cost of a lump-sum acquisition

LO 3 **Apportion the cost of a lump-sum payment for multiple asset acquisitions.**

In a **lump-sum acquisition**, several items of property, plant and equipment may be acquired for a lump-sum payment without an identification of the cost of each asset. In these cases, the total cost must be allocated in some systematic way to the assets purchased because they may have different useful lives, or they may not be depreciable at all. According to IFRS 3/AASB 3 ***Business Combinations***, when the lump-sum acquisition does not constitute the acquisition of a business entity, the cost of the acquisition must be allocated on the basis of the fair values on acquisition date of the assets acquired. For example, assume that a building, land and office equipment were acquired on 2 January for a lump-sum payment of $800 000 (plus GST). Fair values of the assets were determined by an independent appraisal as follows:

	Fair value
Building	$595 000
Land	170 000
Office equipment	85 000
	$850 000

The total cost of $800 000 (net of GST) is allocated to each asset on the basis of these fair values by use of the following formula:

$$\frac{\text{Fair value of specific asset}}{\text{Total fair value}} \times \text{Total cost} = \text{Cost allocated to the specific asset}$$

The allocation is as follows:

$$\text{Building} = \frac{595\,000}{850\,000} \times \$800\,000 = \$560\,000$$

$$\text{Land} = \frac{170\,000}{850\,000} \times \$800\,000 = 160\,000$$

$$\text{Equipment} = \frac{85\,000}{850\,000} \times \$800\,000 = \underline{80\,000}$$

$$\underline{\underline{\$800\,000}}$$

The acquisition is recorded with the following entry:

Jan.	2	Buildings	560 000	
		Land	160 000	
		Office Equipment	80 000	
		GST Receivable	80 000	
		Cash at Bank		880 000
		(Acquisition of property and equipment)		

LEARNING CHECK

☐ The acquisition cost of several items of property, plant and equipment, all occurring in the one transaction, is allocated to each asset in accordance with that asset's fair value, provided the acquisition does not constitute a business combination.

☐ Fair value is the price that would be received to sell an asset or paid to transfer a liability between market participants at the measurement date.

14.4 Assets acquired under a lease agreement

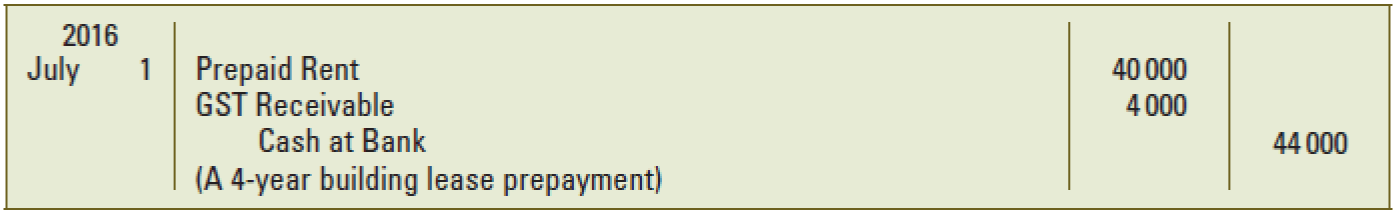
LO 4 **Describe the basics of the acquisition of assets under a lease agreement.**

A popular way business entities acquire property, plant and equipment is to lease the items from a supplier. Many different types of assets are subject to lease agreements; for example, motor vehicles, land, buildings, machinery and storage space are assets commonly leased instead of purchased. The entity leasing the assets is referred to as the **lessee**, and the supplier is called the **lessor**. Under IAS 17/AASB 117 ***Leases***, both the lessee and lessor are required to classify all their leases into two categories — operating leases and finance leases.

An **operating lease** is one where the lessor effectively retains substantially all the risks and rewards attaching to ownership of the leased asset, whereas a **finance lease** is one where substantially all those risks and rewards are effectively transferred from the lessor to the lessee, even though legal ownership remains with the lessor. Under accounting standards, it is not essential that an asset is legally owned for it to be recognised as an asset; all that a lessee needs is the ***control*** of the future economic benefits. Consequently, IAS 17/AASB 117 requires all assets subject to ***finance leases*** to be recognised in the accounting records of the lessee as if they belonged to the lessee for the length of the lease term. The cost for such an asset is equal to fair value or, if lower, the discounted present value of the lease payments to be made by the lessee to the lessor. At the same time that this long-term asset is recognised, a long-term liability is credited to represent the total amount payable to the lessor over the life of the lease. The leased asset and a corresponding lease liability are shown on the balance sheet of the entity even though the asset is not legally owned by the lessee. The leased asset is then subject to depreciation charges over the life of the lease agreement. Lease payments paid to the lessor throughout the lease term will reduce the lease liability until the lease term is completed.

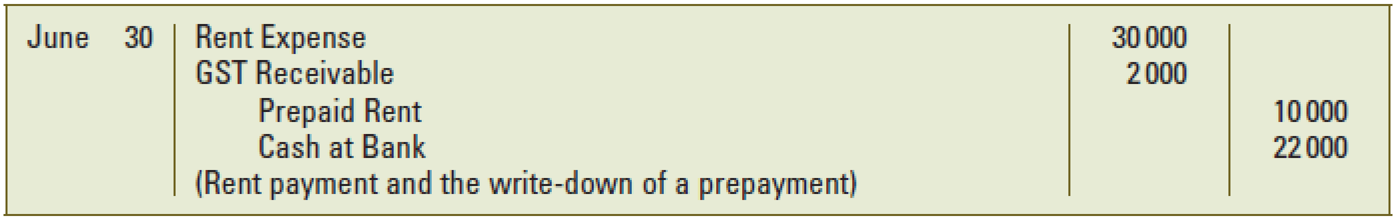
Assets subject to ***operating leases*** are to be treated simply by recognising the rent expense as and when it is due and payable by the lessee to the lessor. Hence, an entry is made to debit Rent Expense and to credit Cash at Bank or Rent Payable plus GST as the case may be. Commonly, a rental payment is made in advance by the lessee to the lessor. If so, then a Prepaid Rent account is debited and written off as the rental asset is used. No long-term asset subject to depreciation charges is recognised under an operating lease. The accounting treatment of an operating lease is illustrated below, but detailed coverage of finance leases is beyond the scope of this book and is treated fully in more advanced texts.

To illustrate an operating lease, assume an agreement was made to lease part of a building from Baxter Realty for 4 years beginning on 1 July 2016. The lease agreement requires a prepayment of $40 000 plus GST and an annual payment of $20 000 plus GST on 30 June each year. The prepayment is recorded as follows:



2016				
July	1	Prepaid Rent	40 000	
		GST Receivable	4 000	
		Cash at Bank		44 000
		(A 4-year building lease prepayment)		

On 30 June each year, the additional $20 000 payment is recorded and the prepayment written off over time as follows:



June	30	Rent Expense	30 000	
		GST Receivable	2 000	
		Prepaid Rent		10 000
		Cash at Bank		22 000
		(Rent payment and the write-down of a prepayment)		

LEARNING CHECK

☐ A finance lease transfers substantially all the risks and rewards incidental to ownership from the lessor to the lessee.

☐ An asset obtained by the lessee under a finance lease is recorded as an item of property or plant and is measured initially at the present value of the future lease payments under the contract, and is subsequently depreciated (if applicable).

14.5 Depreciation

LO 5 Discuss the nature of depreciation and determine the amount of depreciation expense using several different cost allocation methods.

The nature of depreciation

As described earlier, property, plant and equipment represent a store of future economic benefits that an entity intends to receive over the useful life of the assets in the production of goods and services. All such assets except land, whether purchased or leased, have limited useful lives, i.e. their economic benefits are consumed over time to a point where they are either used up or lost. Non-current assets with limited useful lives are often referred to as **depreciable assets**. IAS 16/AASB 116 discusses four factors which contribute to a depreciable asset having a limited useful life:

- ***expected usage*** of the asset, as assessed by reference to the asset's expected output
- ***expected wear and tear***, through physical use, in excess of that which maintenance can restore. Wear and tear is affected by such things as frequency of use, climatic conditions under which the asset is used, and the frequency of expected maintenance. For some assets such as construction equipment, these physical factors are the most important ones affecting useful life.
- ***technical and commercial obsolescence***, which arise from technological changes or improvements in production or the process of becoming redundant through a fall in the market demand for the goods or services which the asset is used to produce; obsolescence is an important factor affecting the decline in future economic benefits of assets such as computers — rapid improvements made in the design and performance of computers generally make them obsolete long before they wear out physically

- ***legal or similar limits*** on the use of an asset, such as the expiry dates of leases.

Accounting for **depreciation** represents the process whereby the decline in future economic benefits of an asset through usage, wear and tear, and obsolescence is progressively brought to account as a periodic charge against income. There are two differing views as to how depreciation should be measured by accountants.

- One view suggests that depreciation should be calculated as the difference between an asset's market value (or fair value) at the beginning and end of a period. In other words, depreciation is measured as a value adjustment for each asset. If the market or fair value of asset A at the beginning of the period is \$5000 and at the end of the period is \$3000, then depreciation is equal to \$5000 − \$3000 = \$2000, which represents the decline in the asset's market or fair value during the period — the valuation approach.
- The second view suggests that depreciation should be measured by allocating the asset's cost or depreciable amount over its estimated useful life, i.e. the period over which the future economic benefits embodied in the asset are expected to be consumed by the entity — the allocation approach.

This second view is favoured in IAS 16/AASB 116. In other words, depreciation in practice is measured and recorded using a process of allocation rather than of valuation. As the asset is used, its depreciable amount is said to expire gradually or be used up. The allocation method used must reflect the pattern in which the asset's future economic benefits are expected to be consumed or lost by the entity.

The meaning of depreciation as used by accountants is often misunderstood because the term is used generally by non-accountants to refer to a fall in the market value of property, plant and equipment. Although such assets are subject to changes in market values, accountants traditionally have not been concerned with recognising these changes in the accounts because property, plant and equipment are acquired for use, not for sale. Depreciation is therefore an allocation process, not a valuation process.

Determining the amount of depreciation

The depreciation of an asset begins when it is available for use, i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Depreciation ceases when an asset is classified as ‘held for sale’ or is derecognised, i.e. written off. Depreciation does not stop merely because an asset is idle or underused.

Factors needed to determine the amount of periodic depreciation for a depreciable asset are cost, useful life and residual value. Determination of the initial cost of property, plant and equipment was discussed earlier. A discussion of useful life and residual value follows.

Useful life

In order to allocate the **depreciable amount** (cost less residual value) of a depreciable asset to the periods benefiting from its use, an estimate must be made of its **useful life**. Useful life is defined in IAS 16/AASB 116 as:

(a) the period over which an asset is expected to be available for use by an entity; or

(b) the number of production or similar units expected to be obtained from the asset by an entity.

The useful life of an asset is most commonly assessed and expressed on a time basis. In assessing useful life, the accountant needs to consider not only the usage and the physical wear and tear on the asset but also its technical and commercial life and its legal life. Physical wear and tear is assessed assuming adequate maintenance and a projected usage rate of the asset. Technical life is assessed in relation to the degree of technical obsolescence estimated to be experienced by the asset. Commercial life depends on the continued saleability of the asset’s products or services.

Of course, technical and commercial obsolescence may cause the asset’s useful life to be shorter than its physical life. For example, the physical life of a motor vehicle may be 15 to 20 years. Because it operates less efficiently as it becomes older, however, the owner may decide that its useful life is only 5 years for the entity, and that it should be traded in at the end of 5 years. The cost of the vehicle, less residual value, therefore, should be charged to depreciation expense over the 5-year period.

Residual value

The **residual value** of an asset is defined in IAS 16/AASB 116 as the estimated amount that an entity could currently obtain from disposal of the asset after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life. This estimate is based on the net amount (at acquisition date) to be recovered currently for similar assets which have already reached the end of their useful lives and have operated under conditions similar to those in which the asset will be used. Thus, residual value is a current value, not an estimated future value. Assets such as cars, trucks and buildings may have significant residual values; other assets such as specifically designed machinery and equipment may have value only as scrap metal at the end of their useful lives to the entity. The cost (or other value) of an asset less its residual value is the depreciable amount that should be charged to depreciation expense over the asset’s useful life. If the residual value is expected to be an insignificant amount in relation to the asset’s cost, it is often ignored in calculating depreciation. Residual value is sometimes referred to as ***salvage value*** or ***trade-in value***.

IAS 16/AASB 116 requires an entity to review at least ***annually***, and adjust if necessary, the useful lives and residual values of its depreciable assets. This enables the entity to calculate depreciation expense at the end of each current period based on up-to-date information. The standard points out that, in practice, the residual amount of a depreciable asset is often insignificant and therefore immaterial in calculating the depreciable amount. However, it may be the case that an asset’s residual value increases over time to an amount equal to or greater than the asset’s **carrying amount** (cost less accumulated depreciation). If this happens, then the depreciation charge for the asset is zero unless or until the residual value subsequently falls to an amount below the asset's carrying amount.

Depreciation methods

Several methods can be used to allocate the cost of an asset over its useful life. The four most frequently used are the straight-line, diminishing balance, sum-of-years'-digits, and units-of-production methods. All methods are acceptable under IAS 16/AASB 116 because they progressively write off the asset to expense by means of systematic depreciation charges against the periods that benefit from the asset's use. It is not necessary for an entity to use a single depreciation method for all of its depreciable assets. The methods chosen must reflect the pattern in which the asset's future economic benefits are consumed or lost by the entity, taking into account the underlying physical, technical, commercial and legal facts. In addition, the methods adopted by management for use in the accounts and financial reports may differ from those used in the preparation of income tax returns.

The standard requires the depreciation method applied to be reviewed at least at the end of each annual reporting period. If the expected pattern of consumption of the future economic benefits in the asset has changed, then the method should be changed to reflect the changed pattern.

Straight-line method

The **straight-line depreciation** method allocates an equal amount of depreciation to each full accounting period in the asset's useful life. The amount of depreciation for each period is determined by dividing the cost of the asset (or its revalued amount) minus its residual value, i.e. its depreciable amount, by the number of periods in the asset's useful life. For example, on 1 July, assume a machine has a cost of $33 000 (net of GST), a residual value of $3000, and a useful life of 4 years. Depreciation for each year is calculated as follows:

$$\frac{\text{Depreciable amount}}{\text{Useful life}} = \frac{\$33\,000 - \$3\,000}{4 \text{ years}} = \$7\,500 \text{ annual depreciation}$$

The entry to record the depreciation expense at the end of each year is:

June	30	Depreciation Expense – Machinery	7 500	
		Accumulated Depreciation – Machinery		7 500
		(Depreciation expense for the year)		

Annual depreciation expense is $7500. If the asset is acquired during the financial year, the depreciation amount for the first or last partial years of its use should be a proportion of the annual amount. For example, if the machine were purchased on 1 October, depreciation for the first year ended 30 June would be 9/12 × $7500, or $5625. Although depreciation could be calculated to the exact day when an asset is acquired during a month, calculation to the nearest month is generally sufficient as depreciation is only an estimated amount.

Diminishing balance method

The **diminishing balance depreciation** method results in a decreasing depreciation charge over the useful life of the asset. This method is appropriate when the majority of the asset's benefits are consumed in the earlier years of its useful life. Depreciation expense for each period is calculated by applying a predetermined depreciation rate to the declining carrying amount of the asset. The annual depreciation rate is determined by the following formula:

$$\text{Depreciation rate} = 1 - \sqrt[n]{\frac{r}{c}}$$

n = useful life (in years)
r = residual value (in dollars)
c = original cost or gross revalued amount (in dollars)

To illustrate, assume the same asset as used in the previous example. On 1 July, the asset has a cost of $33 000 (net of GST), a residual value of $3000 and a useful life of 4 years. Using these figures in the formula:

$$\text{Depreciation rate} = 1 - \sqrt[4]{\frac{3\,000}{33\,000}}$$

$$= 45\% \text{ (approximately)}$$

The rate is then applied to the carrying amount of the asset at the beginning of the period to calculate depreciation expense for each period, as indicated in the following tabulation:

Year	Carrying amount at beginning of year		Rate	Annual depreciation expense	Carrying amount at end of year
1	$33 000	×	45%	$14 850	$18 150
2	18 150	×	45%	8 168	9 982
3	9 982	×	45%	4 492	5 490
4	5 490			2 490	3 000

Three things should be specifically noted in this tabulation. First, the 45% depreciation rate is applied to the ***carrying amount*** of the asset. Estimated residual value is ***not*** deducted under the diminishing balance method, as the residual value was used in calculating the 45% depreciation rate. Second, the amount of depreciation declines each period, as the carrying amount diminishes each period. Third, depreciation for the last period is ***not*** determined by multiplying $5490 by 45% (which would result in a carrying amount greater than the asset's residual value). Depreciation expense of $2490 is calculated for the last period by simply subtracting the residual value of $3000 from the carrying amount at the beginning of the period, $5490.

The entry to record depreciation in the first year is:

June	30	Depreciation Expense – Machinery	14 850	
		Accumulated Depreciation – Machinery		14 850
		(Depreciation expense for the year)		

It was assumed in the above illustration that the asset was acquired at the beginning of the financial year, which seldom occurs. When an asset is acquired during the year, the amount of depreciation for the first year should be a proportion of the annual amount. For example, if the asset were purchased on 1 October, the first year's depreciation would be 9/12 × $14 850, or $11 138. The method of calculating depreciation for subsequent years is unaffected, although the amounts will differ:

Year	Carrying amount at beginning of year		Rate	Annual depreciation expense	Carrying amount at end of year
1	$33 000	×	45% × 9/12	$11 138	$21 862
2	21 862	×	45%	9 838	12 024
3	12 024	×	45%	5 411	6 613
4	6 613	×	45%	2 976	3 637
5	3 637			637	(30 Sept.) 3 000

Since calculation of depreciation expense is at best an estimate, it has been a common practice when applying the diminishing balance method not to use the above formula but to use a rate equal to some multiple of the straight-line depreciation rate allowable for income tax purposes. For example, given a motor vehicle with a cost of $40 000 and residual value of $5000 and the allowable straight-line rate for tax purposes of 15%, then a diminishing balance depreciation schedule for this asset, using a rate of 30% (double the straight-line rate), would appear as shown below:

Year	Carrying amount at beginning of year		Rate	Annual depreciation expense	Carrying amount at end of year
1	$40 000	×	30%	$12 000	$28 000
2	28 000	×	30%	8 400	19 600
3	19 600	×	30%	5 880	13 720
4	13 720	×	30%	4 116	9 604
5	9 604	×	30%	*2 881	6 723
6	6 723	×		*1 723	5 000

Note: The depreciation expense for years 5 and 6 has been rounded to the nearest decimal place. The depreciation expense for the final year will not be based on the percentage rate of 30%, but will be based on the difference between the carrying amount of asset and the residual value received at the end of the asset's useful life, which in this case will result in a depreciation expense of $1723.

Whatever technique is used to calculate diminishing balance depreciation charges, the accountant must keep in mind that the method is justified only where the asset can be expected to yield more benefits in the earlier years than in the later years. In this way, the earlier years bear a larger allocation of the cost of the asset to reflect the economic benefits consumed in those years.

Sum-of-years'-digits method

The **sum-of-years'-digits depreciation** method is a different way of applying the diminishing balance method and results in a decreasing depreciation charge over the useful life of the asset.

Depreciation for each period is determined by multiplying the recorded cost less residual value, i.e. its depreciable amount, by successively smaller fractions. The denominator of the fractions, which is constant, is determined by adding the years in the asset's useful life. The numerators of the fractions, which change each year, are the years remaining in the asset's life at the beginning of the period.

To illustrate, assume that the sum-of-years'-digits method is used to allocate depreciation on a machine with a cost of $33 000 (net of GST), a residual value of $3000, and a useful life of 4 years. The sum of the years' digits (the denominator) is calculated as:

$$1 + 2 + 3 + 4 = 10$$

The depreciation charge for each year is then calculated as shown in the following tabulation:

Year	Depreciable amount		Fraction		Depreciation for the year	Total accumulated depreciation	Carrying amount
1	$30 000	×	4/10	=	$12 000	$12 000	$21 000
2	30 000	×	3/10	=	9 000	21 000	12 000
3	30 000	×	2/10	=	6 000	27 000	6 000
4	30 000	×	1/10	=	3 000	30 000	3 000

Notice that the method results in a carrying amount equal to the asset's residual value at the end of its useful life. The journal entry for depreciation expense in the first year is:

June	30	Depreciation Expense – Machinery Accumulated Depreciation – Machinery (Depreciation expense for the year)	12 000	 12 000

When the asset has a long useful life, the sum of the years' digits can be calculated by using the formula:

$$S = n\left(\frac{n+1}{2}\right)$$

where S = the sum of the years' digits
n = the number of years in the asset's useful life.

The sum of the years' digits for an asset with a 10-year useful life is therefore:

$$10\left(\frac{10+1}{2}\right) = 55$$

When an asset is acquired during the financial year, it is necessary to allocate each full year's amount to the years benefiting from the asset's use. Consequently, if the asset was acquired on 1 October, the depreciation recorded in the first year would be 9/12 × $12 000, or $9000. Depreciation for the second year would be:

3/12 × $12 000 (from year 1 above)	$3 000
9/12 × $9000 (from year 2 above)	6 750
Depreciation for second year	$9 750

Depreciation for each of the remaining years would be calculated in a similar manner.

Units-of-production method

The **units-of-production depreciation** method relates depreciation to use rather than to time. This method is particularly appropriate for assets where consumption of economic benefits varies significantly from one period to another. Accounting periods with greater production from the asset are charged with a greater amount of depreciation expense. A disadvantage of the method is that it requires additional record keeping to determine the units produced during each period by each asset.

Under the units-of-production method, the asset's depreciable amount is divided by the estimated number of production units expected from the asset during its estimated useful life. Production units might be expressed in several ways — kilometres, operating hours, units of product. The result of the division is a depreciation rate per production unit. The amount of depreciation for a period is then determined by multiplying the depreciation rate per production unit by the number of production units used or produced during the period.

To illustrate, assume that a machine with a cost of $33 000 (net of GST) and a residual value of $3000 is estimated to have a useful life of 15 000 operating hours.

The depreciation rate per operating hour is:

$$\frac{\text{Depreciable amount}}{\text{Operating hours}} = \text{Depreciation per operating hour}$$

$$\frac{\$33\,000 - \$3\,000}{15\,000 \text{ hours}} = \$2 \text{ per operating hour}$$

If the machine were operated for 2500 hours during an accounting period, that period would be charged with depreciation of $5000 (2500 hours × $2), and the following depreciation entry is prepared:

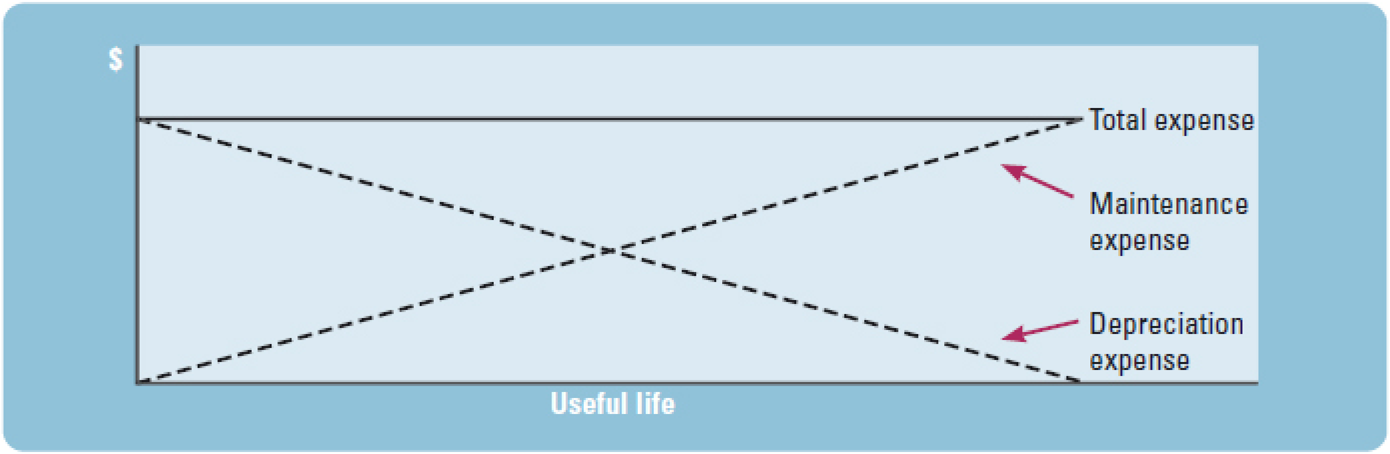
June	30	Depreciation Expense – Machinery	5 000	
		Accumulated Depreciation – Machinery		5 000
		(Depreciation expense for the year)		

Comparison of depreciation methods

In practice, the straight-line depreciation method is the one most widely used. The different methods allocate different amounts to depreciation expense over the life of an asset even though the cost of acquisition, residual value and useful life are the same. The straight-line method produces uniform charges to depreciation over the life of the asset. Depreciation under the straight-line method is considered a function of time. The benefits received from the use of the asset are assumed to be received evenly throughout the asset's life. The units-of-production method produces depreciation charges that may vary significantly from one accounting period to another as the use of the asset varies. Thus, depreciation is considered a function of asset use.

Both the sum-of-years'-digits and the diminishing balance methods charge greater amounts of depreciation to the first year of an asset's life and gradually decreasing charges thereafter. For that reason, these methods are often called **accelerated depreciation methods**. The methods are to be used when the benefits received from the asset are expected to be consumed in the early years of the asset's life. As the asset ages, it becomes less efficient and requires increasing expenditures for repairs and maintenance. The combination of decreasing depreciation expense and increasing repair and maintenance expense tends to equalise the total periodic expense of the asset (as illustrated in figure 14.1), thereby achieving a more even allocation of expense against revenue, and a smoothing of the profit figure.

Figure 14.1 Depreciation and maintenance expense



A comparison of the periodic depreciation charges under the straight-line and accelerated methods for the machine used in previous illustrations is presented below, based as before on a machine cost of $33 000, a residual value of $3000, and a useful life of 4 years. Management must choose the appropriate method based on an analysis of the consumption of expected economic benefits from the asset over time.

Year	Straight-line	Diminishing balance	Sum-of-years' digits
1	$ 7 500	$14 850	$12 000
2	7 500	8 168	9 000
3	7 500	4 492	6 000
4	7 500	2 490	3 000
	$30 000	$30 000	$30 000

Revision of depreciation rates and methods

Two of the factors used to determine periodic depreciation — residual value and useful life — are based on estimates which are rarely precise. Small errors in estimates occur frequently and are generally ignored because their effects are not material. Nevertheless, residual values and useful lives should be assessed at least at the end of each annual reporting period, under IAS 16/AASB 116. Any large errors should be corrected when discovered. The usual procedure is to spread the remaining depreciable amount of the asset over its remaining useful life. Annual depreciation is increased or decreased enough in the current and future periods to offset the effect of the error in previous periods. For example, assume the following case:

Asset cost (net of GST)	$38 000
Useful life	6 years
Residual value	$ 8 000
Accumulated depreciation at the end of 4 years	$20 000

Early in the fifth year, it is decided that the asset's useful life will be extended for 4 more years and its residual value is revised accordingly to $4000. The amount of depreciation to be recognised in the fifth year and each of the remaining years is $2500, as calculated below.

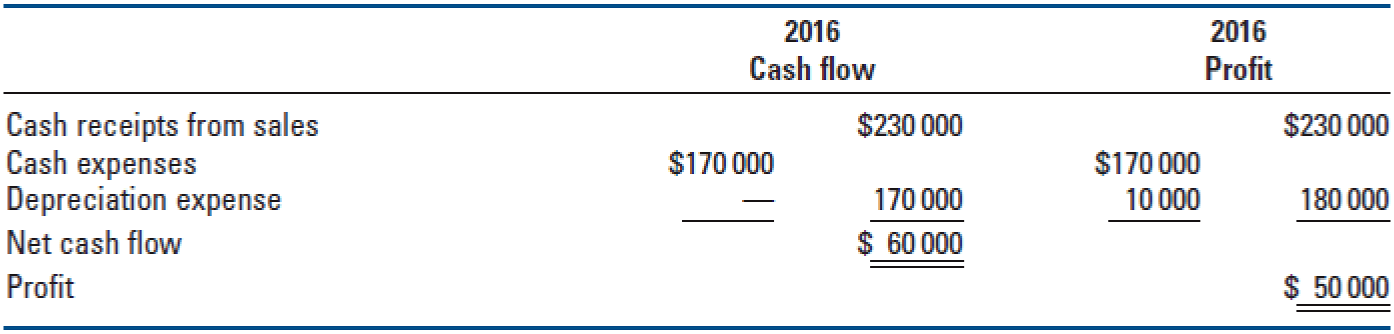
Carrying amount at the end of the 4th year ($38 000 − $20 000)	$18 000
Less: Residual value	4 000
Remaining depreciable amount	$14 000
Useful life remaining	4 years
Revised annual depreciation ($14 000 ÷ 4 years)	$ 3 500

Accumulated depreciation does not represent cash

Accumulated depreciation does not represent a cash reserve built up to replace assets when they wear out. The accumulated depreciation account is a contra-asset account with a credit balance, representing that portion of an asset's recorded cost that has been transferred progressively to depreciation expense since the asset was acquired. The Cash at Bank account is not directly affected by the periodic entries made to transfer the asset's cost to depreciation expense.

Depreciation expense, unlike most other expenses, is, in itself, only an internal transaction which does not involve a cash outflow. As a result, many entities have a net cash inflow from operations (cash receipts from revenues less cash payments for expenses) in excess of reported profits. To illustrate, assume that Beta Ltd sells services only in exchange for cash, and pays cash for all expenses with the exception of depreciation in the same period in which the expense is incurred. During 2016, Beta Ltd made cash sales of $230 000, paid cash expenses of $170 000,

and recognised depreciation expense of $10 000 on equipment purchased at an earlier date. A comparison of cash flow from operations with profit reported for 2016 is:



	2016 Cash flow		2016 Profit	
Cash receipts from sales		$230 000		$230 000
Cash expenses	$170 000		$170 000	
Depreciation expense	—	170 000	10 000	180 000
Net cash flow		$ 60 000		
Profit				$ 50 000

Beta Ltd had a $10 000 greater net cash flow from operations than the amount of profit reported. This results because the depreciation expense deducted in arriving at profit was a non-cash item.

LEARNING CHECK

- ☐ Accounting standards treat depreciation as an allocation of the asset's depreciable amount over its useful life, rather than as a measure of the asset's fall in value.
- ☐ The depreciation calculation for an asset is based on its cost or revalued amount, its residual value and its useful life.
- ☐ Depreciation methods are selected for particular assets based on the pattern of the usage of the expected benefits to be received from those assets.

14.6 Subsequent costs

LO 6 **Describe how to account for subsequent costs incurred in relation to property, plant and equipment.**

Most entities incur additional costs after the original acquisition of property, plant and equipment. For example, a motor vehicle will require regular maintenance, including replacement of tyres; an aircraft may require all its seating and other internal fittings to be replaced four or five times over its useful life; escalators may be installed in a department store for the additional convenience of customers; a furnace may require relining after a specified number of hours of use. Should these subsequent costs be written off to expenses as incurred, treated as separate assets with their own useful lives, or added to the cost of the original asset which would then be depreciated over a revised useful life?

Accounting for subsequent costs requires considerable judgement, using the requirements of IAS 16/AASB 116 as a base. According to the standard, the initial cost ***and subsequent costs*** of an item of property, plant and equipment should be recognised as an asset only under the following recognition principle, i.e. if:

(a) it is probable that the future economic benefits associated with the item will flow to the entity

(b) the cost(s) of the item can be measured reliably.

The authors of this book recommend that, when subsequent costs meet this recognition principle, those costs should be added to the carrying amount of the asset (not to the original cost), or treated as a separate asset and thus subject to depreciation as a separate asset. The standard requires that if the subsequent cost of replacing part of an item of property, plant and equipment is added to the carrying amount of that asset, then the carrying amount of the part that is replaced must be 'derecognised', i.e. written off to expense. If the cost of the replacement part is regarded as a separate asset for depreciation purposes, then the carrying amount of the old part replaced must also be derecognised.

An example of a subsequent cost which would be added to the carrying amount of the asset is the cost (net of GST) of a major overhaul to the asset which would extend its useful life or improve the quality of its outputs. However, a distinction should be made between a major overhaul and the replacement of an asset's major components.

If certain parts of an asset require regular replacement over the useful life of the asset, it may be best to treat these parts as separate assets with separate useful lives, and to depreciate them accordingly. For example, the costs of seating and additional fittings on an aircraft would be recorded in a separate account from the aircraft, and depreciated over their own useful life. Using the same principle, the tyres on a motor vehicle may be treated as an asset separate from the vehicle, if they are considered to be a separate part, and depreciated over their own useful lives of 2–3 years. This may apply particularly to the expensive tyres on heavy-duty trucks used in open-cut mining activities, for example in remote areas of Australia.

However, the tyres on most vehicles are usually not regarded as separate parts but are included in the original cost of the vehicles, and are a necessary cost of providing each vehicle's original set of future economic benefits; thus, any replacement of such tyres is treated as an expense when incurred even though the useful lives of the tyres may extend well beyond the current accounting period. Similarly, day-to-day servicing, such as replacement of the oil filter on a motor vehicle, which does not have a long useful life, is expensed as replaced because it does not extend the future economic benefits of the original asset. Costs of day-to-day repairs and maintenance do not increase the level of economic benefits that will flow to the entity in future periods and must be expensed. It is important to distinguish between day-to-day repairs and maintenance and costs of components or overhauls because improper treatment affects both the determination of periodic profit and the valuation of assets. The distinction between these costs will always be a matter of professional judgement.

Day-to-day repairs and maintenance

Day-to-day repairs and maintenance are those relatively small recurring outlays necessary to keep an asset in good operating condition. Buildings need painting and minor repairs to their electrical, air-conditioning and plumbing systems. Machines must be lubricated, cleaned and reconditioned on a regular schedule. Engines require tune-ups and the replacement of small parts. Expenditures for these purposes do not materially add to the economic benefits or useful life of the asset. Rather, they are made to ensure that the original benefits from the asset are obtained over its useful life. Day-to-day repairs and maintenance expenditures are therefore treated as an expense of the current period.

For example, if on 6 June an entity spent $670 plus GST for a maintenance service, including a new battery and an engine tune-up for its delivery truck, the entry is:

June	6	Repairs and Maintenance Expense	670	
		GST Receivable	67	
		Cash at Bank		737
		(Repairs on delivery truck)		

Overhauls and replacement of major parts

Major reconditioning and overhaul expenditures are made to extend an asset's expected future benefits beyond the original estimate by adding materially to the asset's future capability to produce goods or perform services. For example, assume a delivery van was purchased for $34 000 (net of GST) and was estimated to have a useful life of 5 years with a residual value of $4000. At the end of the van's fourth year, its carrying amount is $10 000, as shown below:

Cost	$34 000
Accumulated depreciation (4 × $6000)	24 000
Carrying amount	$10 000

At the beginning of the fifth year, it is decided to replace the van's engine at a cost of $4500 plus GST, after which the van will last for 3 more years. The residual value is amended to $2000. The old engine was considered to have a carrying amount of $500, and was written off. The entries to record this capital expenditure are:

July	4	Accumulated Depreciation	24 000	
		Delivery Van		24 000
		(Reversing the accumulated depreciation)		

July	4	Delivery Van	4 500	
		GST Receivable	450	
		Cash at Bank		4 950
		(Installation of a new engine)		
	4	Expense on Disposal	500	
		Delivery Van		500
		(Disposal of old engine)		

Depreciation expense for each of the remaining 3 years of the van's life is calculated as follows:

Delivery van carrying amount ($10 000 + $4500 − $500)	$14 000
Less: Residual value	2 000
New depreciable amount	$12 000
Annual depreciation expense ($12 000 ÷ 3 years)	$ 4 000

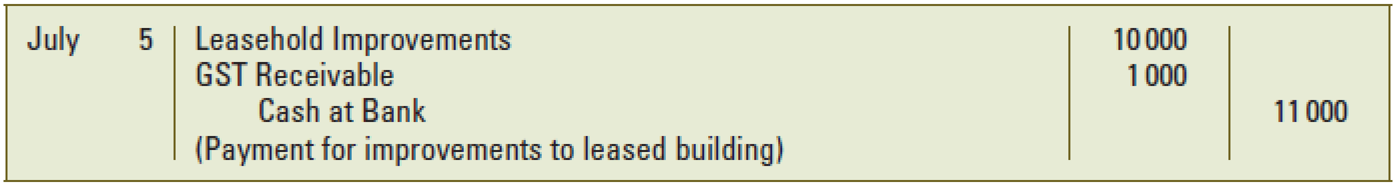
Since the overhaul of the asset is regarded as an addition or extension to that asset, the revised carrying amount should be depreciated over the remaining useful life of the asset; however, in some circumstances, the addition or extension may have a separate identity and be capable of being used even after the existing asset is sold. Such additions or extensions should be depreciated separately on the basis of their own useful lives.

Furthermore, where major parts of assets are recorded in separate accounts from the asset itself, these parts will be depreciated over their own useful lives using appropriate depreciation methods, as discussed previously.

Leasehold improvements

If an entity has leased an asset, particularly on a long-term basis, it is commonplace for the entity to incur additional costs to ensure that the asset is suitable for its own intended use. For example, the entity may incur the costs of constructing a road across land that it has leased, or install partitioning on the floor of a building it has leased. These additional costs are called **leasehold improvements** and are debited to a Leasehold Improvements account. For depreciation purposes, the depreciable amount of leasehold improvements should be allocated progressively over the unexpired period of the lease, or the useful lives of the improvements, whichever is the shorter.

To illustrate, if $10 000 plus GST was paid on 5 July 2015 to install partitions and permanent fixtures in a building leased for 5 years, the payment is recorded as shown below:



July	5	Leasehold Improvements	10 000	
		GST Receivable	1 000	
		Cash at Bank		11 000
		(Payment for improvements to leased building)		

The leasehold improvements are then depreciated each year as shown below, assuming that the life of the lease is shorter than the useful life of the improvements, and residual value is zero:

June	30	Depreciation Expense – Leasehold Improvements	2 000	
		Accumulated Depreciation – Leasehold Improvements		2 000
		(Depreciation of leasehold improvements)		

Spare parts and service equipment

Consider an entity which purchases component spare parts or service equipment specifically for use with a particular asset. Sometimes, these parts and equipment may be sold separately by the entity after the entity has disposed of the asset itself. In this case, the parts and equipment should be recorded in their own separate account and be subject to treatment similar to that of supplies

on hand; for example, as spare parts for repairs of a machine are used, the Spare Parts account is credited and Repairs and Maintenance Expense debited.

In certain cases, an entity's supply of spare parts and/or service equipment for an asset may become redundant if the asset is retired or discontinued; hence, the spare parts and/or service equipment do not have separate lives of their own. In this circumstance, the cost of these spare parts and equipment should be treated as a separate item of property, plant and equipment. As such, the depreciable amount of these parts and equipment must be depreciated over the useful life of the asset that they are expected to serve.

LEARNING CHECK

☐ Subsequent costs, reliably measured, are added to the carrying amount of an asset only if it is probable that future economic benefits will flow to the entity from those costs.

☐ The appropriate accounting treatment for spare parts and service equipment which have been purchased to maintain an item of property, plant and equipment is to treat the spare parts and equipment as separate assets.

BUSINESS KNOWLEDGE

Miners take risk reporting true costs

Mining companies that provide greater transparency about their true production costs run the risk of confusing and deterring potential investors, executives and fund managers have warned. The Weekend Australian reported that BlackRock World Mining Fund — the biggest investor in resource equities worldwide — and AngloGold Ashanti chief executive Mark Cutifani had been critical of the way many mining companies reported their production costs, warning they painted an inaccurate picture of the companies' profitability and could potentially mislead investors.

Common methods of reporting production costs often exclude necessary and significant expenses associated with operating a mine, including royalties, administrative overheads, interest charges, and depreciation and amortisation. Jim Beyer, chief executive of Perth-based iron ore miner Mount Gibson Iron, said the company had long worked to provide greater transparency about its true production costs by reporting a total cost of goods sold — which includes a number of charges not typically included in operating cost calculations — rather than conventional operating costs. Mount Gibson's figure of total cost of goods sold is routinely higher than the operating costs reported by its peers, despite the company's profitability generally being on par with its rivals.

Mr Beyer said the reporting was aimed at providing greater transparency to the market, although it meant the company had to spend considerable time explaining to investors the differences between the figures. 'It certainly doesn't make life easier for us,' he said.

'We have to put in the effort upfront to explain why our costs are what they are, but once we've done that, the institutional investors understand it really well.'

Mr Beyer noted that the profitability or otherwise of every company was revealed in their annual and half-year accounts, meaning there was little reason for companies to avoid revealing their true production costs. But he stopped short of calling for greater regulation.

'A level of consistency, or at least a level of clarity, would be helpful, so investors can understand when they're comparing one company with another, so they understand how they're different,' Mr Beyer said. Michael Anderson, a director of Taurus Funds Management and junior resources companies Hot Chili and Ampella Mining, cautioned that companies that chose to report their costs differently ran the risk of confusing potential investors. 'The problem you get, particularly in the junior sector, is that if you break ranks, all you're really going to do is shoot yourself in the foot,' he said. 'Unless everybody's going to do that, it probably has the potential to be more misleading. 'In the investment community you've got people who do some due diligence and some who do none, and some people who take things at face value and others who will do their own work,' he said. 'Our focus is much more on the credibility of the people who are telling you those numbers than the numbers themselves.'

Source: Excerpts from Garvey, P 2012, 'Miners take risk reporting true costs', ***The Australian***, 11 December, www.theaustralian.com.au.

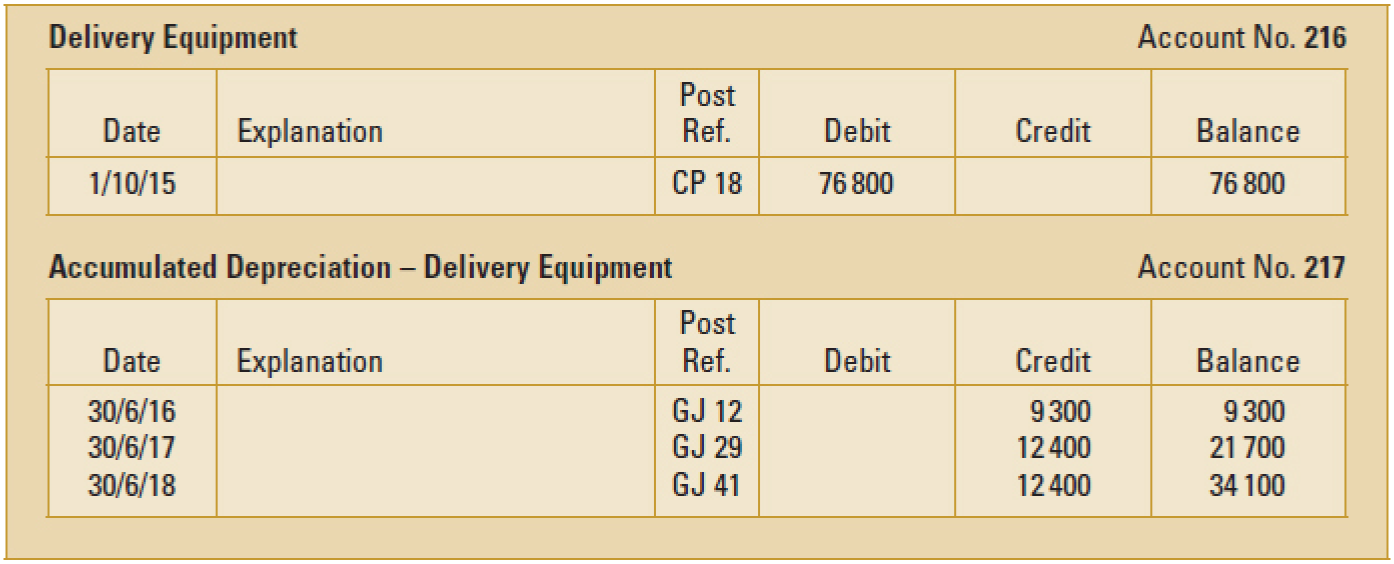
14.7 Property and plant records

LO 7 **Record property and plant records in the property and plant subsidiary ledger.**

Property, plant and equipment are normally divided into functional groups with a separate general ledger account and accumulated depreciation account provided for each group. For example, a retail furniture company has separate asset and accumulated depreciation accounts for delivery equipment, office equipment and store equipment. The company may have several delivery trucks and numerous items of office equipment. For example, the Office Equipment account may contain the cost of desktop computers, printers and fax machines, whereas the office chairs, desks and filing cabinets will be recorded in an Office Furniture account. These items may have been acquired on different dates and will have different useful lives and residual values. In addition, the composition of the group of assets will change over time as individual assets are disposed of and new ones acquired.

Because it is impossible to keep all of the detailed information needed for each asset in the general ledger accounts, each asset account and its related accumulated depreciation account become control accounts, with the detail about each item maintained in a subsidiary ledger. Although there are many variations in the form of subsidiary ledgers kept either manually or electronically, one commonly used manual method (which also may be computerised) consists of a file with a separate record for each item included in the control account. Each record contains a number that is also placed on the asset itself as a means of identification and to aid in internal control over the items. To illustrate, assume a simplified case of a company that has two delivery vans, both purchased on 1 October 2015. The general ledger Delivery Equipment and Accumulated Depreciation control accounts and subsidiary records for these assets are presented in figure 14.2.

Figure 14.2 Property and plant records



Delivery Equipment **Account No. 216**

Date	Explanation	Post Ref.	Debit	Credit	Balance
1/10/15		CP 18	76 800		76 800

Accumulated Depreciation – Delivery Equipment **Account No. 217**

Date	Explanation	Post Ref.	Debit	Credit	Balance
30/6/16		GJ 12		9 300	9 300
30/6/17		GJ 29		12 400	21 700
30/6/18		GJ 41		12 400	34 100

Notice that the account number on the subsidiary ledger records is the same as the general ledger account number for Delivery Equipment. Notice also that the balance in the general ledger account Delivery Equipment is equal to the total of the balances of the asset section of the subsidiary ledger records. Likewise, the balance in the general ledger account Accumulated Depreciation – Delivery Equipment is equal to the sum of the balances of the accumulated depreciation section of the subsidiary ledger records. An inventory of property, plant and equipment is taken periodically to maintain control over the assets and to prove the equality of the general ledger accounts and subsidiary records.

It is a common practice in business for entities to attach a permanent sticker or label to each item of plant and equipment. This sticker usually contains its bar code plus details of the asset's type and serial number, and the account number in which it is recorded.

The subsidiary ledger records provide information for the preparation of income tax returns and for supporting insurance claims in the event of loss from theft and accident. The records also contain information for preparing year-end adjustments for depreciation and space for entries to record the disposal of the asset. When the asset is disposed of, the asset section of the subsidiary record is credited and the accumulated depreciation section is debited, thereby reducing both sections to zero. The record is then removed from the subsidiary ledger and filed in a permanent file for possible future reference.

PROPERTY AND PLANT RECORD

Account No. 216

Item ¾ Tonne Van

General Ledger Account Delivery Equipment

Serial No. 3AG64243321

Purchased from Bextell Motors

Useful Life 5 years

Residual Value $3200

Depreciation per Year $6400

Depreciation Method Straight-line

Date	Explanation	Post Ref.	Asset			Accumulated Depreciation		
			Dr	Cr	Bal.	Dr	Cr	Bal.
1/10/15		CP 18	35 200		35 200			
30/6/16		GJ 12					4 800	4 800
30/6/17		GJ 29					6 400	11 200
30/6/18		GJ 41					6 400	17 600

PROPERTY AND PLANT RECORD

Account No. 216

Item One-tonne Van

General Ledger Account Delivery Equipment

Serial No. 4SG7215B4312

Purchased from Bextell Motors

Useful Life 6 years

Residual Value $5600

Depreciation per Year $6000

Depreciation Method Straight-line

Date	Explanation	Post Ref.	Asset			Accumulated Depreciation		
			Dr	Cr	Bal.	Dr	Cr	Bal.
1/10/15		CP 18	41 600		41 600			
30/6/16		GJ 12					4 500	4 500
30/6/17		GJ 29					6 000	10 500
30/6/18		GJ 41					6 000	16 500

LEARNING CHECK

☐ Subsidiary ledgers are used for property, plant and equipment in order to record details of each asset held, its cost, residual value, useful life, depreciation method, and subsequent costs if included as part of the asset.

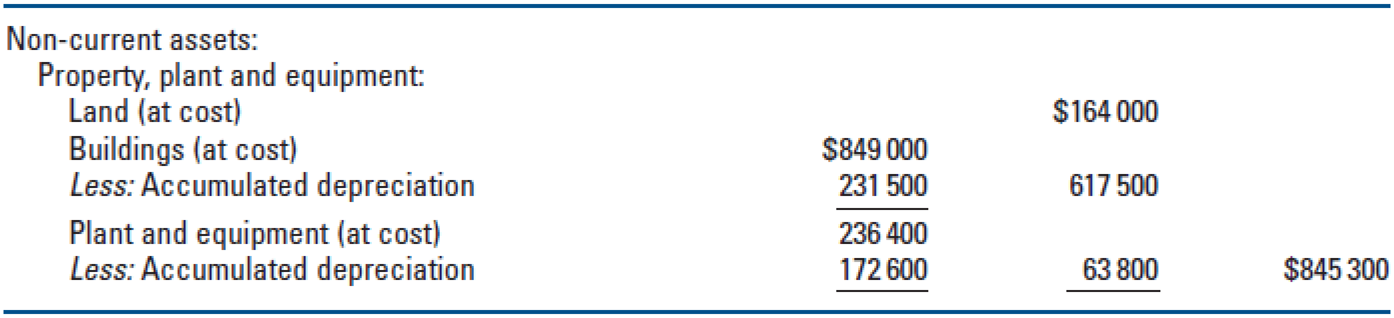
☐ The balance(s) of the control account(s) used in the general ledger for property, plant and equipment must agree with the sum of the balances of each property and plant record.

14.8 Disclosure of property, plant and equipment

LO 8 **Illustrate the reporting requirements for property, plant and equipment and depreciation in an entity's financial reports.**

For general purpose financial statements, it is a requirement of IAS 16/AASB 116 that the depreciation methods used, the useful lives or the depreciation rates used, and the aggregate depreciation expense be disclosed. Furthermore, both the cost of depreciable assets and their accumulated depreciation must be shown in the financial report. Accumulated depreciation is disclosed as a deduction from the assets or class of assets to which it relates.

Property, plant and equipment may be reported in the balance sheet or in an accompanying schedule as follows:



Non-current assets:			
Property, plant and equipment:			
Land (at cost)		$164 000	
Buildings (at cost)	$849 000		
Less: Accumulated depreciation	231 500	617 500	
Plant and equipment (at cost)	236 400		
Less: Accumulated depreciation	172 600	63 800	$845 300

LEARNING CHECK

☐ The information to be disclosed about property, plant and equipment in financial statements prepared for external interested parties includes the measurement bases used for determining the gross carrying amount, depreciation methods used and the useful lives or the depreciation rates used.

14.9 Analysis, interpretation and management decisions

LO 9 **Analyse and interpret information on property, plant and equipment and appreciate the critical nature and importance of management decisions in relation to property, plant and equipment.**

Analysis and interpretation

With information on property, plant and equipment disclosed in financial reports, the reader can determine the approximate age of the assets. If the assets are old, they are likely to be less efficient in producing future goods and services. In addition, knowledge of the age of assets is useful in judging the approximate time at which expenditures will be needed to replace them. For example, with the use of straight-line depreciation, the buildings presented in the previous section have been used for about 27% (i.e. $231 500

÷ $849 000) of their useful lives. Financing the replacement of these assets will probably not be required in the near future.

However, the plant and equipment has been used for approximately 73% (i.e. $172 600 ÷ $236 400) of its useful life; thus, a decision to replace these assets will be necessary in the not-too-distant future.

Note that readers of financial statements can assess the average percentage of useful life expired of the entity's property, plant and equipment by calculating the following ratio:

$$\text{Average percentage of useful life expired} = \frac{\text{Accumulated depreciation}}{\text{Average recorded cost}}$$

This ratio is particularly useful for decision making when non-current assets have not been revalued. However, if revaluation has occurred, as discussed in the next chapter, this ratio is of limited usefulness as the Accumulated Depreciation account is often eliminated on revaluation.

Another ratio of benefit to readers of financial statements is one that shows the relationship between the average gross cost of property, plant and equipment and the current depreciation expense for the period, as an assessment of the assets' average useful life. Thus:

$$\text{Average useful life (in years)} = \frac{\text{Average recorded cost}}{\text{Depreciation expense}}$$

This ratio is helpful whenever an entity has failed to disclose the useful lives, or when the disclosure of useful lives is vague; for example, a company may state that the useful lives of its plant and equipment range from 2 years to 40 years!

Another ratio used in decision making assesses the entity's ability to turn over its assets during the current financial period. The asset turnover ratio is calculated as follows:

$$\text{Asset turnover (in number of times)} = \frac{\text{Net sales}}{\text{Average total assets}}$$

Average total assets is calculated as an average of the beginning and ending assets for the period. This ratio indicates the number of times that average total assets have generated sales dollars. In other words, the ratio means that for every dollar invested in assets, the entity has been able to generate so many dollars or cents in sales. A refinement of this ratio relates net sales to investment in average property, plant and equipment. It is calculated as follows:

$$\frac{\text{Net sales}}{\text{Average property, plant and equipment}}$$

This ratio shows the revenue being generated by a certain level of investment in property, plant and equipment. A declining value of this ratio over time indicates a possible overinvestment in plant and equipment.

Ratios such as these are helpful to decision makers when used in conjunction with similar data for the same entity for previous years, and for different entities in the same year so as to assess comparative performance across time and between entities.

When interpreting these ratios, users must appreciate that since asset values are largely based on historical cost (albeit with some revaluations), changing technology, changing economic conditions and market price fluctuations affect these ratios. These factors can limit the usefulness of the ratios.

Management decisions

An entity's investment in property, plant and equipment varies depending on the nature of the business and its major types of activities. Entities engaged in the manufacturing and construction industries require a greater investment in plant and equipment than do those engaged in wholesaling and retailing activities. The relationship of plant and equipment to sales and total assets should be appropriate for the industry concerned. If investment in plant and equipment is too high, a smaller proportion of the entity's funds is available for working capital, and major operations may be curtailed as a result. Higher depreciation charges will result in lower profits, or higher prices for products sold. If the plant and equipment is financed by long-term borrowings, there will be additional demands on cash funds to meet interest payments and, ultimately, repayment of the loans. It is therefore critical that management make the correct decisions regarding investment in plant assets.

The planning and financing of capital investments, such as the replacement of equipment, expansion of production facilities and introduction of a new product line, is an important area of management decision making. This function of management is known as **capital budgeting**. These decisions are concerned with a current expenditure that will pay for itself over time and yield an acceptable rate of return over a relatively long period of time. As such, capital budgeting decisions are critical to the long-term profitability of an entity, since they will determine its capacity to do business in the short and long term. Capital budgeting decisions must be considered carefully by top management for several reasons.

- They involve large sums of money.
- The resources invested are committed for a long period of time.
- They cannot be reversed easily since the investment becomes a sunk cost that can be recovered only through the productive use of the assets.
- Since they are long-term in nature, substantial risk is involved because of such uncertainties as economic conditions, technological developments, consumer preferences and social responsibilities.

In many cases, the success or failure of an entity may depend on a single decision. A number of methods are available to management for the evaluation of capital expenditures. In fact, entire books have been written about the subject of capital budgeting, which can involve many sophisticated techniques. Common methods are payback period, rate of return on average investment, and discounted cash flow techniques. Payback period is the number of years it takes for the investment to recover the funds initially outlaid. Rate of return on average investment relates the profits generated from the investment to the average investment in the assets over time. Discounted cash flow techniques relate the present value of projected future cash inflows to the initial outlay in the assets, and decisions are made based on this relationship. A detailed treatment of these techniques is not covered in this chapter; however, the importance of management decisions in relation to property, plant and equipment must be understood.

LEARNING CHECK

- ☐ The approximate age of property, plant and equipment can be determined by an interested external user by examining the relationship between the average recorded cost and accumulated depreciation.
- ☐ Capital budgeting is important in determining which assets to buy in order to achieve acceptable rates of return on the investments made in property, plant and equipment.

KEY TERMS

Residual value, p. 608
Straight-line depreciation, p. 608
Sum-of-years'-digits depreciation, p. 610
Units-of-production depreciation, p. 611
Useful life, p. 607

DISCUSSION QUESTIONS

1. Discuss which of the following should be included in the cost of equipment: (a) installation charges, (b) freight charges, (c) cost of building foundations, (d) new parts needed to replace those damaged while unloading, (e) borrowing costs incurred to finance the purchase of the equipment. What is the general principle to be followed in determining what should be included in the cost of property, plant and equipment?
2. 'According to IAS 16/AASB 116, an item of property, plant and equipment that qualifies for recognition must be recorded at cost, representing the fair value of any assets given up in order to acquire them. Would it not be better to record the assets acquired at their own fair values rather than at those of the assets given up?' Discuss this suggestion and explain the rationale behind the accounting standard. Do you agree with this rationale? Why or why not?
3. ABC acquired a piece of open land for speculation purposes. It is expected that the value of the land will increase so that it can be sold in the future at a profit. Where should this land be reported in the balance sheet?
4. During your lunchtime, which you usually spend at the university canteen in the presence of other students, one particular accounting student who was having difficulty with the textbook complained that he did not understand which costs were to be regarded as part of the acquisition cost of land, which costs were to be attributed to buildings under construction, and which were to be treated as an expense. Explain the basic principles to be followed. Are there any difficulties in applying these principles? Explain by providing examples.
5. Z Ltd depreciates its equipment using the straight-line method of depreciation. Y Ltd, which owns the same equipment, and has purchased the item on the same day from the same supplier as Z Ltd, uses the diminishing balance method. Are the depreciation charges of these two companies non-comparable? Explain.
6. Should depreciation be recorded on a building for a year in which the market value of the building has increased? Discuss.
7. At a recent seminar, a managing director of a well-known company argued that the diminishing balance method of depreciation was the best method to use because it had the effect of producing a 'nice, smooth income (profit) flow'. Discuss how this could occur, and consider the desirability of reporting smooth profit flows. What role does/should the accountant play in this respect?

8. (This is based on an actual case): A 'particularly aggressive' DVD rental store chain amended its depreciation charges for DVDs by extending their useful lives from 12 months to 48 months. This had the effect of adding $5 million to the company's profits, an increase of nearly 20% for the year! On publication of a report critical of this practice, the share price for the company fell dramatically.

   Critically examine the company's depreciation policy, and comment on the likely effects on shareholders, managers and customers of the consequences of the adverse report. Can the company justify its actions?
9. What is the distinction between an overhaul, replacement of a component, and day-to-day repairs and maintenance? Give an example of each and explain how the accounting treatment is different.
10. 'With proper maintenance, certain equipment will last almost indefinitely, in which case depreciation is not necessary.' Discuss.

EXERCISES

Exercise 14.1 LUMP-SUM ACQUISITION

LO 2

Baxter Ltd acquired a parcel of land, buildings and machinery on 10 July for a cash price of $2 400 000. Fair values of the assets on the acquisition date were appraised as:

Land	$1 400 000
Building	800 000
Machinery	150 000
	$2 350 000

The acquisition was not considered to be a business combination.

Required

Calculate the amount of cost that should be assigned to each of the assets and prepare a journal entry to record the acquisition. Ignore GST.

Exercise 14.2 COST AND ANNUAL DEPRECIATION LO 2, 5

On 2 January 2015, Johnston Ltd purchased a machine with a list price of $234 300 (including GST) and credit terms of 2/10, n/30. Payment was made within the discount period. Freight costs of $5400 plus GST and installation costs of $5280 plus GST were also paid. The machine has a useful life of 4 years and a residual value at the end of its useful life of $24 000.

Required

A. Determine the amount that should be debited to the machinery account and prepare a general journal entry to record the purchase, assuming a financial year ending 31 December.
B. Determine the amount of depreciation expense for each of the 4 years ending 31 December assuming use of:
  1. the straight-line depreciation method
  2. the diminishing balance method of depreciation.
C. Prepare a journal entry to record depreciation expense for the year ending 31 December 2015 under the diminishing balance method.

Exercise 14.3 DEPRECIATION METHODS LO 5

Hampstead Ltd purchased new equipment on 1 January 2015, at a cost of $590 000 net of GST. The company estimated that the equipment has a useful life of 5 years and a residual value of $45 000.

Required

Assuming a financial year ending 30 June, calculate the amount of depreciation expense for each year ending 30 June 2015 through to 30 June 2020 with each of the following methods:

1. straight-line
2. diminishing balance.

Exercise 14.4 DEPRECIATION METHODS LO 5

Nevertire Ltd purchased a delivery van costing $52 000 net of GST. It is expected to have a residual value of $12 000 at the end of its useful life of 4 years or 200 000 kilometres.

Required

A. Assume the van was purchased on 2 July 2015 and that the accounting period ends on 30 June. Calculate the depreciation expense for the year 2015–16 using each of the following depreciation methods:
  1. straight-line
  2. diminishing balance
  3. units of production (assume the van was driven 78 000 kilometres during the financial year).
B. Assume the van was purchased on 1 October 2015 and that the accounting period ends on 30 June. Calculate the depreciation expense for the year 2015–16 using each of the following depreciation methods:
  1. straight-line
  2. diminishing balance
  3. units of production (assume the van was driven 60 000 kilometres during the financial year).

Exercise 14.5 REVISION OF DEPRECIATION RATES **LO 5**

Star Ltd purchased new equipment for $60 000 net of GST on 2 July 2015. The equipment was expected to have a $10 000 residual value at the end of its 8-year useful life. Straight-line depreciation has been recorded. While reviewing the accounts in anticipation of adjusting them for the annual financial reports for the year ended 30 June 2018, Star Ltd decided that the useful life of the equipment should be extended by 2 years, and that the residual value should be revised to $6000.

Required

A. Give the general journal entry to record depreciation expense on the equipment for the year ended 30 June 2018.
B. Calculate the carrying amount of the equipment at 30 June 2018.

Exercise 14.6 OVERHAULS, REPAIRS AND REVISION OF DEPRECIATION **LO 5, 6**

On 2 January 2015, McGrath Ltd purchased a machine for $36 000 plus GST with a useful life of 5 years and a residual value of $6000. In order to keep the machine running properly, the company has performed regular maintenance and repairs each year since its acquisition. In the fourth year (2018), ordinary repairs amounted to $900 plus GST.

On 3 January 2019, McGrath Ltd decided to completely overhaul the machine's major operating parts at a cost of $9600 (plus GST), after which the machine is expected to have a useful life of 4 more years and a revised residual value of $4000. McGrath Ltd uses the straight-line depreciation method. The carrying amount of the parts replaced was considered to be $400.

Required

Prepare general journal entries to record:

1. the purchase of the machine on 2 January 2015
2. the day-to-day repairs on the machine in 2018
3. the overhaul of the machine on 3 January 2019
4. depreciation expense on the machine on 31 December 2019.

Exercise 14.7 IMPROVEMENTS AND REVISION OF DEPRECIATION **LO 5, 6**

At 30 June 2015, the financial statements of McMaster Ltd showed a building with a cost (net of GST) of $300 000 and accumulated depreciation of $152 000. The business uses the straight-line method to depreciate the building. When acquired, the building's useful life was estimated at 30 years and its residual value at $60 000. On 1 January 2016, McMaster Ltd made structural improvements to the building costing $94 000 (net of GST). Although the capacity of the building was unchanged, it is estimated that the improvements will extend the useful life of the building to 40 years, rather than the 30 years originally estimated. No change is expected in the residual value.

Required

A. Calculate the number of years the building had been depreciated to 30 June 2015.
B. Give the general journal entry to record the cost of the structural improvements on 1 January 2016.
C. Give the general journal entry to record the building's depreciation expense for the year ended 30 June 2016.

Exercise 14.8 DEPRECIATION, FINANCIAL POSITION AND MANAGEMENT DECISION MAKING **LO 5, 6, 8**

On 1 July 2015, Chadstone Ltd purchased a motor vehicle which is estimated to have a $6000 residual value and a useful life of 4 years. On 1 July 2017, the company purchased plant and equipment which is estimated to have a residual value of $10 000 and a useful life of 4 years. The following is an extract from the balance sheet showing the carrying amounts of these assets at 30 June 2018:

CHADSTONE LTD
Balance sheet (extract)
as at 30 June 2018

NON-CURRENT ASSETS		$70 000
Property, plant and equipment:		
Plant and equipment (at cost)	$90 000	
Less: Accumulated depreciation	20 000	
Motor vehicle (at cost)	30 000	
Less: Accumulated depreciation	18 000	12 000
		$82 000

Required

A. For each asset, calculate the percentage of useful life expired.
B. What decisions will management need to make in the next financial year?
C. Prepare the journal entries to record depreciation expense at 30 June 2019.
D. Prepare an extract from the balance sheet at 30 June 2019 (assuming no new assets have been purchased).

Exercise 14.9 DEPRECIATION METHODS **LO 5**

Edwards Ltd recently paid $290 000 for manufacturing equipment, which is expected to have a useful life of 4 years and a residual value of $50 000. The manager of Edwards Ltd wants information about the effect that various depreciation methods will have on profit and asks you to prepare a schedule comparing the straight-line and diminishing balance methods of depreciation. Ignore GST.

Required

Prepare a schedule as set out below and calculate the annual depreciation charge and end-of-year carrying amount for the expected life of the equipment.

	Straight-line		Diminishing balance	
Year	Depreciation	Carrying amount	Depreciation	Carrying amount
Acquisition		$170 000		$170 000
1				
2				
3				
4				

Exercise 14.10 DEPRECIATION AND OVERHAULS **LO 2, 5**

Prestige Printing Ltd commenced business on 1 July 2015. On 5 July 2015, a printing machine was purchased for $35 000 plus GST, payable in two equal instalments due on 1 August and 1 October 2015. Transport costs of $1200 plus GST were paid in cash to deliver the machine to Prestige Printing Ltd's premises. The machine was expected to have a useful life of 5 years and a residual value of $3000.

On 22 September 2015, the business purchased a second-hand truck for $26 000 plus GST. Stamp duty amounted to $700 (GST does not apply). The truck dealer also fitted four new tyres at a cost of $1200 plus GST and spray-painted the business logo on the truck doors at a cost of $500 plus GST. All amounts were paid in cash. The truck was expected to have a useful life of 3 years and a residual value of $5000.

On 1 March 2016, extensive repairs were carried out on the printing machine at a cost of $18 230 plus GST, paid in cash. The company expects these repairs to extend the machine's useful life by 2 years. The residual value was revised to $4000. The carrying amount of the parts replaced in the machine was considered to be equal to $14 000.

The company uses the straight-line depreciation method, recording depreciation to the nearest month. The end of its reporting period is 30 June.

***Required* (round all amounts to the nearest dollar)**

A. Prepare general journal entries (narrations are not required, but show all workings) to record the above transactions and to record depreciation adjustments necessary for the year ended 30 June 2016.
B. Justify the value you recognised as the cost of the second-hand truck purchased on 22 September 2015 by reference to the requirements of IAS 16/AASB 116.

PROBLEMS

Basic
  Moderate
    Challenging

Problem 14.1 DEPRECIATION AND OVERHAULS

LO 2, 5, 6

Branson Ltd owns two delivery vehicles (each with a residual value of $5000 and useful life of 4 years) and uses the straight-line method of depreciation. The business closes its accounting records annually on 30 June. The following events and transactions occurred during the first 3 financial years. Ignore GST.

2016–17

July 1	Purchased a delivery truck from Mangrove Mountain Motors for $60 000 cash plus stamp duty of $620, and registration and third-party insurance of $840.
June 1	Made minor repairs to the truck for cash at a cost of $420.
June 30	Recorded annual depreciation.

2017–18

July 1	Purchased a delivery van from Northern Motors for cash, $45 000. This van was a used vehicle which was expected to last 4 years from the date of purchase. Fitted four new tyres to the van at a cash cost of $1320.
June 30	Recorded depreciation on both truck and van.

2018–19

July 1	Paid $3700 for an overhaul of the motor of the delivery truck. This expenditure is expected to extend the useful life by 1 year. The parts replaced in the truck were considered to have a carrying amount of $2000. Installed a two-way radio in the delivery van at a cost of $1600 to improve efficiency. This expenditure will not increase the useful life.
June 30	Recorded depreciation on both truck and van.

Required

Prepare entries (in general journal form) to record the transactions of Branson Ltd as they relate to both vehicles to 30 June 2019.

Problem 14.2 DEPRECIATION METHODS AND PARTIAL YEARS

LO 5

Brunswick Ltd operates four types of equipment. Because of their varied functions, management has decided that four different depreciation methods will be used to determine depreciation charges. Information on the equipment is summarised as follows:

Equipment type	Date acquired	Cost (net of GST)	Residual value	Useful life	Depreciation method
1	1/7/15	$ 95 400	$10 000	8 years	Diminishing balance
2	1/7/15	148 000	15 000	6 years	Sum-of-years'-digits
3	1/1/16	27 500	5 500	10 years	Straight-line
4	15/4/16	39 700	4 600	20 000 hours	Production units

Use of equipment type 4 was 1200 hours in the year ended 30 June 2016; 3200 hours in 2017; and 2600 hours in 2018.

Required

Assuming the financial year ends on 30 June and that depreciation is recorded to the nearest month, calculate the depreciation charges for 2016, 2017, 2018 and 2019 by preparing a schedule with the following headings:

	Depreciation expense for year ended 30 June			
Equipment type	2016	2017	2018	2019

Problem 14.3 COST OF VARIOUS ASSETS

LO 2, 5

Mason's Manufacturing Ltd began operations during 2015. The company had a building constructed and acquired manufacturing equipment during the first 6 months of the year. Manufacturing operations began early in July 2015. The company's accountant, who was unsure how to treat property, plant and equipment transactions, opened a Property, Plant and Equipment account and debited (credited) that account for all the expenditures and receipts involving assets as shown below (all costs are net of GST).

1.	Cost of real estate purchased: Land	$113
	Old building	400
2.	Paid for the demolition of the old building to prepare the site for a new	35 000
3.	one.	15 000
4.	Paid for taxes in arrears on the property in (1)	6 700
5.	Paid fee for title search on property in (1)	600
6.	Received for sale of salvaged materials from old building	(4 600)
7.	Paid architect for designing new building	40 000
8.	Paid for a temporary fence around the construction site	23 300
9.	Paid excavation costs for new building	84 000
10.	Partial payment to building contractor	225 000
11.	Paid for construction of parking spaces and installation of parking area	15 700
12.	lights	18 000
13.	Paid interest on building loan during construction	275 000
14.	Made final payment to building contractor	84 000
15.	Paid for manufacturing equipment	1 600
16.	Paid freight on manufacturing equipment	2 900
17.	Paid installation costs of manufacturing equipment	1 300
18.	Paid for removal of temporary fencing around construction site	(500)
	Received for temporary fencing materials salvaged	800
	Paid for repair of manufacturing equipment that was damaged during installation	
	Property, Plant and Equipment account balance	$937
		200

Required

A. Prepare a schedule similar to the one below. Analyse each transaction and enter the payment (receipt) in the appropriate column. Total the columns.

Item no.	Land	Land improvements	Building	Manufacturing equipment	Other

B. Prepare a general journal entry to close the $937 200 balance in the Property, Plant and Equipment account and allocate the amounts to their appropriate accounts.

C. Prepare an entry to record depreciation expense for half the year to 31 December 2015 on land improvements, building and manufacturing equipment using straight-line depreciation. Useful lives and residual values are:

	Useful life	**Residual value**
Land improvements	10 years	—
Building	20 years	$46 100
Manufacturing equipment	8 years	7 500

Problem 14.4 MAJOR OVERHAULS AND REVISION OF DEPRECIATION LO 5, 6

Powerhouse Ltd purchased machinery on 2 January 2015, at a cost of $800 000 plus GST. The machinery is depreciated using the straight-line method over a useful life of 8 years with a residual value of $80 000.

On 3 January 2018, an overhaul of the machinery was made at a cost of $112 000 plus GST. Because of this overhaul, the useful life was re-estimated at 4 years from 3 January 2018, and the residual value was amended to $40 000. The carrying amount of parts replaced was considered to be $10 000.

Required

Assuming the financial year ends on 31 December, prepare journal entries to record:

1. the purchase of the machinery on 2 January 2015
2. depreciation expense for 2015, 2016 and 2017
3. the overhaul expenditure on 3 January 2018
4. depreciation expense for 2018.

Problem 14.5 COMPREHENSIVE PROBLEM LO 2, 5, 8

On 2 January 2015, Powerhouse Ltd purchased, by exchanging $300 000 cash and a $180 000, 12%, 18-month finance company loan, assets with the following independently determined appraised values:

	Appraised value
Building	$320 000
Land	80 000
Machinery and equipment	100 000
	$500 000

The estimated useful life of the building is 30 years and its residual value is $20 000.

The $100 000 machinery and equipment amount consists of three machines independently valued at $30 000 each and some office equipment valued at $10 000. The estimated useful lives and residual values for these assets are:

	Useful life	**Residual value**
Machine 1	6 years	$3 000
Machine 2	9 years	3 000
Machine 3	4 years	4 000
Office equipment	5 years	500

Powerhouse Ltd uses the straight-line depreciation method. Ignore GST.

Required

A. Prepare journal entries (in general journal form) to record the following.
   1. The purchase of the assets.
   2. The accrual of interest expense on the loan on 31 December 2015.
   3. Depreciation expense for the year 2015.
   4. The payment of the loan on 2 July 2016.

B. Show how the assets would be reported on the 31 December 2015 balance sheet.

Problem 14.6 COMPREHENSIVE PROBLEM **LO 2, 5, 6**

Over a 5-year period, Downton Ltd completed the following transactions affecting non-current assets in financial years ending 31 December. The company uses straight-line depreciation on all depreciable assets and records depreciation to the nearest month.

2015

Jan. 3 Purchased a new machine for a cash price of $30 000 (net of GST). Freight charges of $700 (net of GST) and installation expenditures of $3200 (net of GST) were paid in cash. The machine has a useful life of 5 years and a residual value of $5000.

June 25 Purchased a used delivery van for $19 000 cash (net of GST). The van was repainted at a cost of $400 (net of GST) and a new battery (net cost: $100) and tyres (net cost: $800) were installed. The van has a useful life of 3 years and a residual value of $1300.

Dec. 31 Recorded depreciation expense on the assets.

2016

July 30 Paid for day-to-day repairs and maintenance on the machine and van at a cost of $520, net of GST.

Dec. 31 Recorded depreciation expense on the assets.

2017

April 2 Installed a fence around the company property at a cost of $8000 (net of GST). The fence has a useful life of 12 years with no residual value.

Dec. 31 Recorded depreciation expense on the assets.

2018

June 30 Recorded the final depreciation on the delivery van.

June 30 The company completed construction of a new warehouse. Construction costs incurred (all paid in cash, net of GST) were: labour, $18 000; materials, $33 000; building permits, $1500; architect fees, $2300; and overhead, $4000. The warehouse is expected to have a residual value of $7000 and a useful life of 30 years.

Dec. 27 Completely overhauled the machine purchased on 3 January 2015, at a cost of $5000 (net of GST), after which the useful life was estimated to be 4 additional years, and residual value was revised to $6000. The parts replaced were considered to have zero carrying amount.

Dec. 31 Recorded depreciation expense on the assets.

2019

Dec. 31 Recorded depreciation expense on the assets.

Required

A. Prepare general journal entries to record all the transactions of Downton Ltd.
B. Prepare a schedule showing the cost and accumulated depreciation of each asset after recording depreciation on 31 December 2019.
C. Post the journal entries in requirement A to the appropriate non-current asset accounts from 3 January 2015 to 31 December 2019.

Problem 14.7 COMPREHENSIVE PROBLEM **LO 2, 5**

Alexander Ltd completed the following transactions during 2016. The company uses sum-of-years'-digits depreciation and records depreciation to the nearest month.

Jan. 5 Purchased a used machine (No. 1) for $8000 cash (net of GST). The machine was painted and reconditioned at a cost of $900. During installation, one of the major components was dropped and had to be repaired at a cash cost of $300, net of GST. The machine is expected to have a useful life of 4 years and a residual value of $500.

Mar. 7 Purchased land and a building with the intention of tearing down the building and constructing a new office complex. Alexander Ltd paid $140 000 for the property, plus an agent's commission of $8000 and title search fees of $2500. All costs were net of GST.

Mar. 20 Paid Dan's Demolition Services $9000 to demolish the building acquired on 7 March. The cost is net of GST.

April 10 The company's parking area was paved at a cost of $28 000 (net of GST). The parking area has a useful life of 8 years with no residual value.

June 23 Purchased for cash a machine (No. 2) with a list price including GST of $16 500. The seller granted a 4% trade discount. GST is to be deducted. Transportation and freight charges of $1236 (net of GST) were also paid. The machine's useful life is estimated to be 5 years and its residual value $1600 (excluding GST).

Nov. 1 Purchased for $29 000 cash (plus GST) a machine (No. 3) with a useful life of 8 years and a residual value of $1000.

Required

A. Prepare general journal entries to record all the transactions of Alexander Ltd.
B. Prepare an entry to record depreciation expense on 31 December 2016.

Problem 14.8 PROPERTY AND PLANT RECORDS **LO 5, 7**

Selected transactions of Coromandel Ltd are given below. The company uses straight-line depreciation and calculates depreciation expense to the nearest whole month.

2015

Jan. 4 Purchased from Brampton Ltd a bottle washer (Serial No. 17538X) for $44 000 cash (net of GST). The useful life of the machine is 5 years and its residual value is expected to be $8000.

April 10 Purchased from Granada Ltd a dryer (Serial No. PY43121) for $39 000 cash (net of GST). The machine has a useful life of 6 years and a residual value of $9000.

Required

A. Prepare journal entries to record the purchase of the assets and to record depreciation expense on 30 June 2015 and 2016, the end of the company's reporting periods.
B. Open a Machinery account (No. 230) and an Accumulated Depreciation – Machinery account (No. 231), and prepare subsidiary property and plant records for the two assets. Post the journal entries to the general ledger accounts and to the subsidiary property and plant records.

Problem 14.9 DEPRECIATION AND OVERHAULS **LO 5, 6**

Rawsons' Recycling Ltd commenced business on 31 March 2015 in the recycling industry. The company balances its accounting records at month-end and the end of its reporting period is 31 December. Ignore GST.

The following events occurred during 2015 and 2016:

2015

April 1 Paid $140 000 cash for a second-hand disposal truck.
Paid $1500 cash to recondition the truck's engine.

June 30 Paid $12 000 cash for equipment. The company estimated the equipment's useful life at 10 years and residual value at $1500.

Aug. 31 Paid $600 cash for the truck's transmission repairs and oil change.

Dec. 31 Recorded depreciation on the truck at 40% p.a. on the diminishing balance, and on the equipment using the straight-line method.

2016

Mar. 13 Paid $600 cash to replace a damaged bumper bar on the truck.

July 1 Installed a new motor in the truck for a cost of $11 000. The company considered that the carrying amount of the old motor was only $600 at this date, and the old motor was written off. With the new motor installed, the truck's depreciation rate using the diminishing-balance method was revised to 30% from 1 July.

Dec. 31 Recorded depreciation on the truck and on the equipment.

Required

A. Prepare general journal entries to record the above events.
B. Prepare the following ledger accounts for the period 31 March 2015 to 31 December 2016:
   - Truck
   - Equipment
   - Accumulated Depreciation – Truck
   - Accumulated Depreciation – Equipment.

Problem 14.10 CORRECTING ERRORS LO 2, 5

At the end of Sovereign Ltd's financial year, 30 June 2016, the following items must be resolved before adjusting entries and financial statements are prepared. Ignore GST.

1. On 1 July 2015, Sovereign Ltd purchased a used machine for $48 000 cash. The cost was debited to the Machinery account. Prior to use, additional cash expenditures were made for painting and repairing the machine, $4200, and installing and testing the machine, $3000. These additional expenditures were debited to Repairs and Maintenance Expense. The repairs and installation were completed on 1 October 2015, and the machine was put to use. The machine has a useful life of 5 years with a residual value of $4000. Sovereign Ltd uses straight-line depreciation and records depreciation to the nearest month.

2. Land and a building were purchased on 2 July 2015 for $180 000 cash, debited to the Land account. The appraised values of the building and land were $100 000 and $60 000, respectively. The building has a useful life of 20 years with a residual value of $6000. Sovereign Ltd uses straight-line depreciation for buildings.

3. A new truck was purchased on 1 March 2016; Sovereign Ltd paid cash of $55 500 and also obtained a 12-month loan payable for the amount of $30 000. The Trucks account was debited for $85 500. The truck has a useful life of 4 years with a residual value of $20 000 and is to be depreciated by the diminishing balance method. However, due to an oversight, the business used the straight-line method.

Required

A. Prepare journal entries on 30 June 2016 to correct the accounts.
B. Prepare journal entries as necessary to record depreciation expense after the corrections in requirement A have been made.

Problem 14.11 DETERMINATION OF COST AND DEPRECIATION LO 2, 5

Your examination of the records of Wilson Ltd, which was established on 1 March 2015, reveals that the accountant debited the Land, Buildings and Equipment account with the following items (ignore GST):

Purchase price of land and building	$ 650 000

(An independent valuation was obtained, showing land being valued at $600 000 and

the building at $80 000)	
Legal and transfer costs	3 500
Cost of demolition of building	25 000
Earthmoving on property	15 000
Architect’s and other professional fees in respect of the erection of new buildings on the property	160 000
Cost of erection of new building	2 100 000
Layout of parking area	75 000
Lighting of parking area	18 000
Cost of machinery and equipment (including $9000 for a machine which was dropped from one of the company’s vehicles during off-loading and irreparably damaged)	1 267 000
Installation cost of machinery	85 000
Cost of replacement of damaged machine	9 000
	$4 407 500

Examination of the wage records shows that the salary of the manager, $4000 per month, was debited to the Salaries Expense account. From 1 March to 31 August 2015, he supervised the erection of the factory buildings, and from 1 September to 31 October 2015 he supervised the installation of the machinery.

The accountant credited sundry income with $8400, being $7000 received for scrap building material from the demolished building and $1400 for the damaged machine.

Required

A. Show journal entries to transfer the amounts to three different accounts, i.e. Land account, Buildings account and Machinery account.

B. Assuming that the enterprise started operations on 1 November 2015 and that its financial year ends on 31 March, journalise the following depreciation entries using the straight-line method:
   1. buildings: useful life 40 years, $20 000 residual value
   2. machinery: useful life 12 years and residual value amounting to 10% of cost.

DECISION ANALYSIS

Depreciation of machinery

In early July 2015, Masterton Ltd is considering the acquisition of some machinery for $1 200 000 plus GST to be used in the manufacture of a new product. The machinery has a useful life of 10 years, during which management plans to produce 500 000 units of the new product. The residual value of the machinery is $100 000.

The following projections were made in order to select a depreciation method to be used for the machinery:

Year ended 30 June	Units of output	Repairs and maintenance	Profit before depreciation
2016	50 000	$ 70 000	$350 000
2017	45 000	60 000	340 000
2018	55 000	90 000	355 000
2019	58 000	95 000	360 000
2020	60 000	100 000	380 000

In calculating the profit before depreciation, all expenses have been deducted, including the repairs and maintenance expense.

Required

A. As the accountant for Masterton Ltd, prepare separate depreciation schedules for the machinery for the 5-year period, using the following depreciation methods: (a) straight-line, (b) diminishing balance, (c) sum-of-years'-digits, and (d) units-of-production. Use the following headings for each schedule: 'Year ending 30 June', 'Annual depreciation expense', 'Accumulated depreciation', 'Carrying amount at end of year'.

B. Prepare a report for management, stating the advantages and disadvantages of each depreciation method. Include in the report your recommendations on the choice of method consistent with the requirements of IAS 16/AASB 116. Support your recommendations with schedules showing the total annual cost of operating the machinery, and the profit after depreciation.

C. Write an addendum to your report, making further recommendations based on the following additional information supplied to you by management. Firstly, as an alternative to acquiring the machinery, management is considering leasing the machinery for an annual rental charge of $250 000; all repairs and maintenance costs would be paid by the lessor. Secondly, management wishes to show the most favourable financial results in anticipation of acquiring a long-term bank loan.

CRITICAL THINKING

Purchase price of land, building and furniture

Prestige Property Ltd has acquired a two-story office building on a large piece of land. The land also includes a fully established car park and landscaping. The offices have recently been fitted out with new carpets, curtains and office furniture which are all included in the purchase price.

As the accountant of Prestige Property Ltd you have been asked to work out the cost of the office building, the land and the furniture and fittings so that they can be entered into the accounts of the company. You have gathered the following information (ignore GST).

- The advertised purchase price of the office building and land was $1.5 million. Prestige Property Ltd issued the owner of the land with 200 000 shares in Prestige Property Ltd that had been

trading on the share market for $7.50 before the issue of the new shares but had subsequently fallen to $7 as a result of the share issue being made.
- A piece of vacant land next to the one purchased, and of equal size, recently sold for $800 000.
- The vendor of the office building has shown you the value of the furniture and fittings in their accounts as being $300 000.
- A builder has estimated that to build an office building similar to the one acquired would cost about $700 000.
- You want to maximise the cost of the furniture and fittings and the buildings as these are depreciable for taxation purposes.

Required

A. What is the fair value of the office buildings and the land?

B. How would you divide the purchase price between the land, buildings and office furniture?

C. Show the journal entry to record the acquisition of these assets in the accounts of Prestige Property Ltd.

COMMUNICATION AND LEADERSHIP

Acquisition of property by issuing shares

In groups of four or five, consider the following information.

On 1 July 2015, Stevenson Pty Ltd, a proprietary company with three shareholders, acquired some property by issuing 100 000 shares to the owner. Prior to the acquisition, the property had been advertised for sale at $350 000. This advertised price had been based to some extent on a previous independent appraisal, obtained by the owner, of the approximate fair market value, $300 000; 20% of this value was considered to apply to the land and 80% to the buildings.

Required

Discuss how the above situation should be recorded in the accounting records of the company. Write a brief memorandum to the manager explaining the reasons for the preferred method.

ETHICS AND GOVERNANCE

Changing depreciation methods

Pringles Ltd is a large department store that has used the straight-line depreciation method since the company was first formed. For the year ended 30 June 2015, the company made a record profit and management expected these high profits to continue at least into 2016 and 2017, although economists were generally predicting an economic slowdown and a subsequent fall in profits in 2018 and 2019.

The general manager, Peter Pringle, approached the accountant, Marion Mason, and asked her if she could find a way to reduce the profit in the next couple of years and transfer it to 2018 and 2019 when things may not be going so well. ‘This would give us consistent profits over the next few years and keep our shareholders happy,’ said Peter.

Although Marion did not feel that Peter’s reason for the change was justified, she was concerned that her contract with the company would not be renewed if she upset the general manager. After some consideration, Marion decided to change the depreciation method from the straight-line method to the sum-of-years’-digits method. Marion did not disclose this change in the notes to the financial statements as she felt that the reason given by Peter would not give a good impression.

Required

A. Who are the stakeholders in this situation?
B. What ethical issues, if any, arise in this situation?
C. How does the change in accounting methods by Marion meet the objectives set out by Peter?
D. Do Marion’s actions comply with the requirements of IAS 16/AASB 116?

FINANCIAL ANALYSIS

Refer to the consolidated financial statements and their notes in the latest financial report of Wesfarmers Ltd on its website, www.wesfarmers.com.au, and answer the following questions.

1. How is property, plant and equipment reported in the consolidated balance sheet? What is the total carrying amount for property, plant and equipment as disclosed at the end of the financial year?
2. What was the composition of Wesfarmers Ltd’s property, plant and equipment at the end of the reporting period? How have these assets been valued?
3. What methods of depreciation have been used for the various categories of property, plant and equipment?
4. Has the group disclosed the rates of depreciation or the useful lives of these assets?
5. What was the amount of depreciation charged on these assets for the current and prior years?
6. Were any items of property, plant and equipment purchased during the year? Were any such items constructed or under construction? How has the company treated borrowing costs incurred on properties under development? Does the company have any commitments for future capital expenditure not provided for in the financial statements? Provide details of any financial amounts involved.

CHAPTER 15

Non-current assets: revaluation, disposal and other aspects

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the nature of non-current assets, especially property, plant and equipment (p. 602)
- how to record the acquisition of property, plant and equipment (pp. 602–4)
- the nature of depreciation in accounting (pp. 606–7)
- how to record depreciation expense under alternative depreciation allocation methods (pp. 608–10)
- the treatment of costs subsequent to acquisition of non-current assets (pp. 614–7)
- the accounting for the sale of inventory under a perpetual inventory system (pp. 244–50)
- the closing entries needed at the end of a reporting period (pp. 186–204).

Learning Objectives

After studying this chapter, you should be able to:

1 account for the revaluation of non-current assets, both upwards and downwards (pp. 638–43)
2 account for the write-down of an impaired non-current asset to recoverable amount (pp. 643–4)
3 account for the derecognition of non-current assets by scrapping, by sale, or by exchange (pp. 644–8)
4 account for depreciation using composite rates (pp. 648–50)
5 describe the accounting for the acquisition and depletion of mineral resources (pp. 650–2)
6 describe the nature of biological assets and agricultural produce and how to account for them (pp. 652–3)
7 describe the nature of intangible assets and the problems of accounting for them (pp. 653–7)

8 describe the nature of goodwill and how to account for goodwill acquired by an entity (pp. 657–9).

Despite the theory, determining the real value of a company is no easy task — Intelligent Investor

Probably the simplest valuation tool in the investor’s tool kit is the price-to-book ratio. You get it by dividing the total value of a company’s shares on the market (its market capitalisation) by the value of all the assets on its balance sheet, less liabilities (its ‘net asset value’ or ‘book value’).

There are two main justifications for using it to estimate value. The first is that the book value represents what has been paid by the company for all its stuff, so it might at least be an indication of its value — after all, the company could flog it all and give the money back to shareholders.

The second justification is rather more esoteric, though it amounts to the same thing. The theory goes that the book value is the base of capital from which a company makes its money, and since competition should ensure that all capital should make the same returns (at least as adjusted for risk), then the sum of a company’s capital represents its value to shareholders.

Accounting confusion

And so the cracks start appearing. The first problem is that the book value does not, in fact, represent the value of a company’s assets; it represents what the company paid for those assets, less an arbitrary charge for wear and tear over the years, and plus or minus the odd bit of accounting confusion.

Plant and machinery dedicated to a declining industry might have a much lower value than that stated on the balance sheet. Some assets, such as property, might be understated, and some valuable intangible assets, such as brands, might not even show up at all.

The Coca-Cola Company had a book value of $US33 billion ($35.7 billion) last year, but according to Interbrand, its main brand is worth $US78 billion. Even that may be on the low side if the company's $US172 billion market capitalisation is anything to go by.

Closer to home, ASX Ltd, operator of the Australian Securities Exchange, has a market capitalisation of about $6.8 billion, or a little more than twice its book value of $3.3 billion. Investors are clearly betting the whole is greater than the sum of its parts.

At the other end of the scale, we have companies such as Qantas and BlueScope Steel, which are priced well below the sum of their parts — at price-to-book ratios of 0.5 and 0.7, respectively. Investors are clearly reckoning that they won't make satisfactory returns from all that capital stored up on their bloated balance sheets — and we wouldn't argue.

Which gets us to our second problem — which is that companies and investors most definitely don't all make the same returns. Some companies consistently make returns far above what others achieve, either because of competitive advantages or good management, or both. Economic theory says these factors should be ironed out over time, but in practice they can hang around for ages — particularly where the capital has been tied up in the likes of steel mills and aeroplanes.

Liquid assets

So the price-to-book ratio works best where 'barriers to exit' are low, so that capital can move quickly and easily from where returns are low to where they are high. Financial companies are probably the best example and Macquarie Group is a case in point.

In essence, Macquarie comprises a pile of relatively liquid assets, with a bunch of smart people trying to direct it to where it can earn the best returns, for an acceptable level of risk. In 2007, when Macquarie's share price was nudging $90, the price-to-book ratio would have flashed you a warning sign with a level of about 3.5. But it would also have showed you the way in 2009 and 2011, when Macquarie was priced below book value with its share price around $20. Now, about $49, Macquarie's price-to-book is about 1.4, making it a solid hold.

The big banks make higher returns on capital than Macquarie, and can arguably justify higher price-to-book ratios.

In early 2009, in the aftermath of the global financial crisis, their price-to-book ratios fell to a range of about 1 to 1.5 (with Commonwealth Bank and Westpac near the top and NAB and ANZ near the bottom).

Since then their share prices have roughly doubled — and their price-to-book ratios are now back to around 2 to 2.5 (again with NAB and ANZ near the bottom and CBA at the top). This is still some way below their pre-GFC peaks — Westpac hit 3.7 and CBA reached 3.3 in late 2007 — but Beirut isn't a safe place just because it isn't Kabul.

The price-to-book ratio is not showing the big four banks to be obviously overvalued at the moment, but they are a long way from bargain territory. As a result, we have been reducing the holdings in our model portfolios and recommend limiting total banking exposure to less than 10 per cent of portfolio value at current prices.

Source: Bell, N 2013, 'Despite the theory, determining the real value of a company is no easy task — Intelligent Investor', ***The Age***, 18 September.

Chapter preview

The previous chapter focused on accounting procedures for the initial and subsequent costs of property, plant and equipment, as well as on the nature of depreciation and the procedures for depreciation, as specified in accounting standard IAS 16/AASB 116 ***Property, Plant and Equipment***. In this chapter, we introduce the accounting aspects for a range of topics associated with the broader category of non-current assets. The revaluation, impairment and derecognition (disposal) of property, plant and equipment completes the discussion of such property and plant begun in the previous chapter. We then look at other types of non-current assets, namely mineral resources, biological assets and intangible assets such as brand names (as mentioned in the scene setter). Finally, we consider the accounting treatment of goodwill acquired in a simple business combination.

15.1 The revaluation model

LO 1 **Account for the revaluation of non-current assets, both upwards and downwards.**

Following the initial acquisition of property, plant and equipment, an entity is required by IAS 16/AASB 116 to adopt either a cost model or a revaluation model for accounting for these assets. The previous chapter illustrated the cost model, where an item of property, plant and equipment is carried in the accounting records at cost less any accumulated depreciation.

If an entity chooses the revaluation model, then an asset must be revalued to its **fair value**, which, for an asset, is defined as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date (IFRS 13/AASB 13 ***Fair Value Measurement***). Fair values must be capable of verifiable measurement and revaluations must be made, either upwards or downwards, with sufficient regularity to ensure that the carrying amount of each asset does not differ materially from its fair value. The **carrying amount** of an asset (also referred to as book value) refers to the amount at which an asset is recorded in the entity's accounts after deducting accumulated depreciation and accumulated impairment losses (see later in the chapter for a discussion of impairment). Any revaluation above the asset's existing carrying amount is referred to as a **revaluation increase**; any revaluation below the existing carrying amount is referred to as a **revaluation decrease**.[1]

IAS 16/AASB 116 states the general policy that, whenever a non-current asset is to be revalued, the entire class of assets to which that asset belongs must be revalued to fair value, so that all assets of the same class are stated at amounts that are determined at the same date. Thus, a revaluation to fair value of one item of plant and machinery leads to a revaluation of all plant and machinery; a revaluation of one block of land means that all blocks are to be revalued, provided that the land in question is treated by the entity as a non-current asset and not inventory. Once assets have been revalued to fair value, the revaluations must be kept at fair value at the end of each subsequent reporting period.

Note carefully that the standard ***does not require*** an entity to revalue its assets, but if revaluations ***are*** made, the measurement method to apply is fair value. The main aim of the standard is

to prescribe the accounting entries to use if an entity decides to revalue classes of its non-current assets to fair value.

Initial revaluation increases

According to IAS 16/AASB 116, when each non-current asset of a particular class is initially revalued upwards to fair value, the revaluation increase shall be recognised in other comprehensive income and accumulated in equity under the heading of 'revaluation surplus'. The important point about the revaluation increase is that it is not included in the entity's profit for the year, but appears as part of an entity's comprehensive income, and is then directly accumulated into equity as a revaluation surplus which is a type of reserve. As discussed more fully in chapter 17 on disclosure in general purpose financial statements, a statement of profit or loss and other comprehensive income discloses not only the entity's profit or loss for the period but also **other comprehensive income**, which is defined in IAS 1/AASB 101 ***Presentation of Financial Statements*** as comprising items of income and expense that are not recognised in profit or loss, as required or permitted by other accounting standards. The components of other comprehensive income are described as including:

- changes in revaluation surpluses
- actuarial gains and losses on defined benefit superannuation plans
- gains and losses arising from translating the financial statements of a foreign operation
- gains and losses on remeasuring certain financial assets.

Hence, when preparing general purpose financial statements for the use of external parties, any increase or decrease in the revaluation surplus must be disclosed separately, below the profit figure, in the entity's statement of profit or loss and other comprehensive income, prepared in accordance with the requirements of IAS 1/AASB 101. When disclosed as part of other comprehensive income (OCI), the revaluation increase is usually described as a 'gain on revaluation'.

For any depreciable non-current asset which is revalued upwards, the existing accumulated depreciation account must be written off against the asset account to give the asset's carrying amount. The asset account should then be increased to reflect the revalued amount.

To illustrate, assume that Garden Landscaping has two non-current assets on 31 December 2016, namely:

Land		$150 000
Motor vehicle	$65 000	
Less: Accumulated depreciation	25 000	40 000

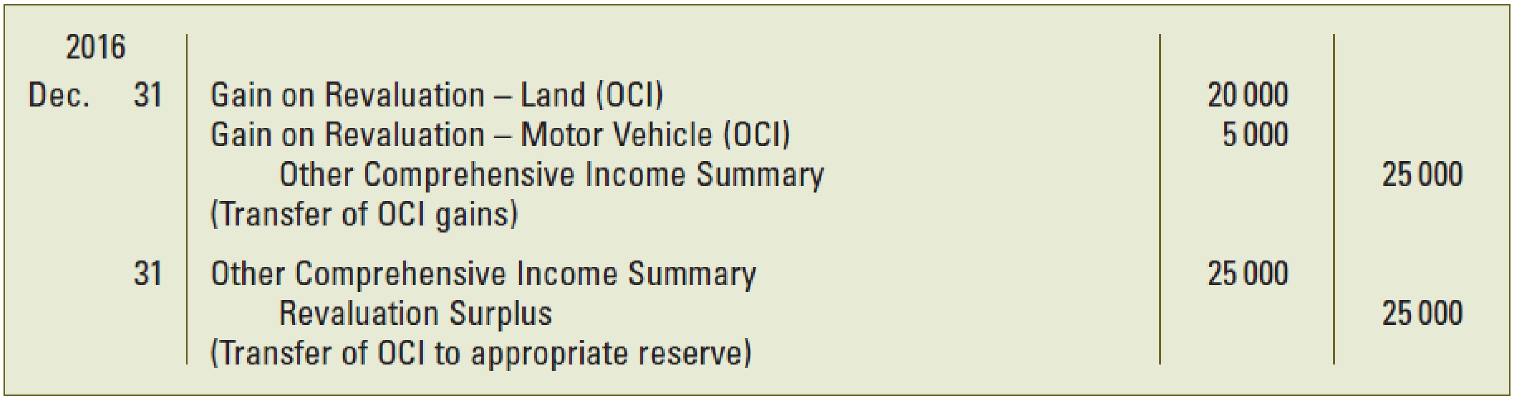
A decision is made on 31 December 2016 to adopt the revaluation model, and to revalue both classes of assets: the land to a fair value of $170 000 and the motor vehicle to a fair value of $45 000. The journal entries necessary for each asset are:

2016			
Dec. 31	Land	20 000	
	Gain on Revaluation – Land (OCI)		20 000
	(Revaluation increase on land)		
31	Accumulated Depreciation – Motor Vehicle	25 000	
	Motor Vehicle		20 000
	Gain on Revaluation – Motor Vehicle (OCI)		5 000
	(Revaluation increase on motor vehicle)		

The entry for the motor vehicle above may be a little clearer if split into two entries:

2016			
Dec. 31	Accumulated Depreciation – Motor Vehicle	25 000	
	Motor Vehicle		25 000
	(Write back accumulated depreciation)		
31	Motor Vehicle	5 000	
	Gain on Revaluation – Motor Vehicle (OCI)		5 000
	(Revaluation increase on motor vehicle)		

At the end of the reporting period, if the entity is required to prepare general purpose financial statements, the two gains on revaluation are reported as part of other comprehensive income (OCI). The authors recommend that, in addition to the Profit or Loss Summary account, another account called the Other Comprehensive Income Summary account (OCI Summary) be used as part of the closing process (for earlier discussion of the closing process, see chapter 5). The two gains on revaluation can then be transferred to the Revaluation Surplus account as shown below, assuming that 31 December 2016 is the end of the reporting period:



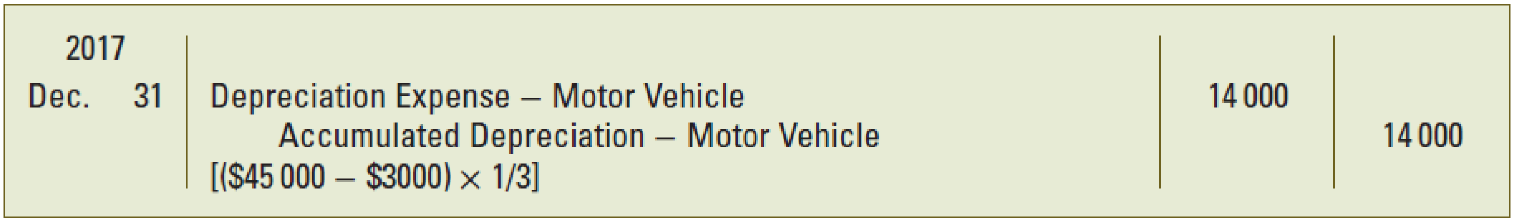
2016			
Dec. 31	Gain on Revaluation – Land (OCI)	20 000	
	Gain on Revaluation – Motor Vehicle (OCI)	5 000	
	Other Comprehensive Income Summary		25 000
	(Transfer of OCI gains)		
31	Other Comprehensive Income Summary	25 000	
	Revaluation Surplus		25 000
	(Transfer of OCI to appropriate reserve)		

The OCI Summary account is used as part of the closing process to accumulate every item which is included in the OCI as required by accounting standards. It is then cleared by transferring the balance to appropriate reserve accounts. In this case the appropriate reserve is entitled Revaluation Surplus in accordance with IAS 16/AASB 116.

After the revaluation, the asset accounts appear as follows:

Land	$170 000
Motor vehicle	45 000

Note the carrying amount of the motor vehicle before the revaluation was equal to $40 000 ($65 000 – $25 000). The revaluation increase of $5000 has then been added to the carrying amount after the accumulated depreciation has been written off. Any future depreciation charges on depreciable assets such as the motor vehicle in the example will then be based on the revalued carrying amounts. Thus, if the motor vehicle is now assessed to have a useful life of 3 years and its residual value is $3000, the entry for depreciation on a straight-line basis for the year ending 31 December 2017 (end of the reporting period) is:

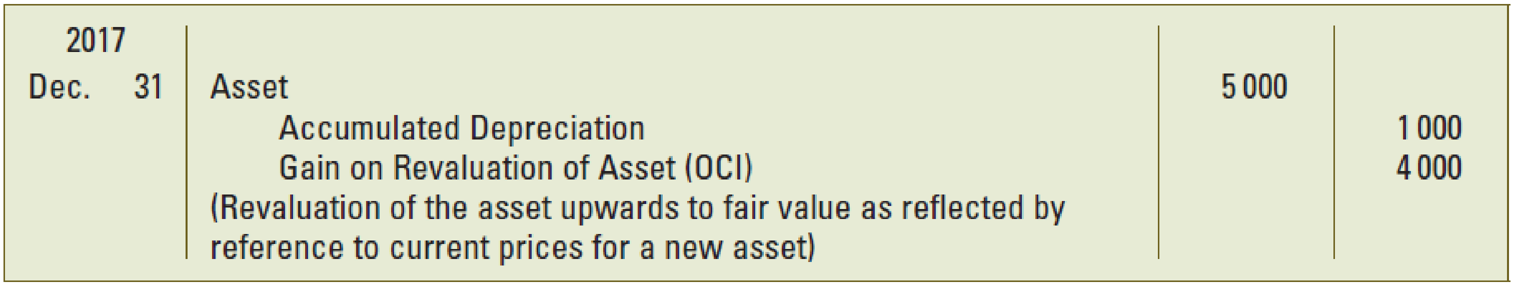


2017			
Dec. 31	Depreciation Expense – Motor Vehicle	14 000	
	Accumulated Depreciation – Motor Vehicle		14 000
	[($45 000 – $3000) × 1/3]		

In relation to the write-back of existing accumulated depreciation balances, the standards permit an alternative treatment where an entity revalues a depreciable asset by reference to current prices for assets newer than those being revalued. For example, an entity may revalue its fleet of 2-year-old motor vehicles by using the current market buying prices of similar new vehicles, and adjusting those current prices to reflect the present condition of the fleet of vehicles held. In this situation, the entity may restate separately the gross amount and the related accumulated depreciation of the vehicle fleet.

To illustrate, assume that an entity acquires a non-current asset for a cost of $10 000 on 1 July 2015. The asset is expected to have a useful life of 10 years with no residual value and depreciation is to be determined on a straight-line basis. On 30 June 2017, when the carrying amount of the asset is $8000 ($10 000 cost less accumulated depreciation of $2000), the entity decides to adopt the revaluation model for this class of non-current asset. Fair value in this case is determined by reference to the current price of an equivalent brand-new asset, which has a current market price of $15 000. Since the asset held by the entity has been owned for 2 years and has been depreciated by a total of 20%, the amount of the asset after the revaluation must reflect an accumulated depreciation balance equal to 20% of the current market

price of the new asset, namely 20% of $15 000, or $3000. The general journal entry to record the revaluation is:



2017				
Dec.	31	Asset	5 000	
		Accumulated Depreciation		1 000
		Gain on Revaluation of Asset (OCI)		4 000
		(Revaluation of the asset upwards to fair value as reflected by reference to current prices for a new asset)		

The asset will then be reflected in the financial statements at the fair value of $12 000, i.e. the gross price of $15 000 less accumulated depreciation of $3000.

Initial revaluation decreases

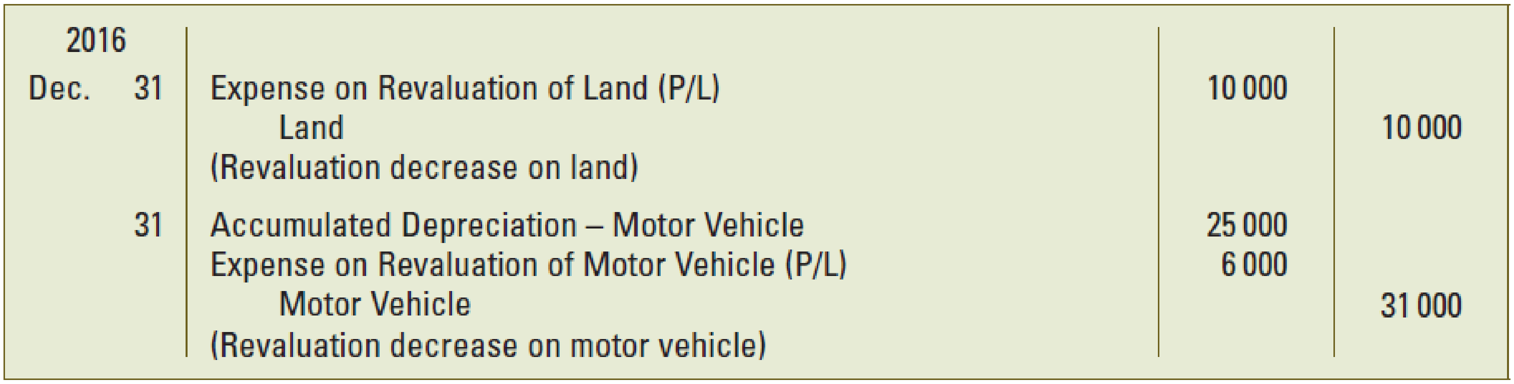
Under IAS 16/AASB 116, downward revaluations by an entity of assets within a ***class*** of non-current assets can occur only when the carrying amounts of those assets exceed their fair values. In other words, a revaluation decrease represents a write-down of a class of non-current assets from carrying amount to fair value. According to the standard, if an asset's carrying amount is decreased as a result of a revaluation, the decrease must be recognised in profit or loss, and not as a reduction in other comprehensive income. Thus, the standard requires a revaluation decrease to be treated as an expense, which reduces profit in the current period. The expense will therefore be transferred to the Profit or Loss Summary account at the end of the reporting period.

As with revaluation increases, any accumulated depreciation on the assets should be written off against the assets.

To illustrate, assume as before that on 31 December 2016 Garden Landscaping has two non-current assets, namely:

Land		$150 000
Motor vehicle	$65 000	
Less: Accumulated depreciation	25 000	40 000

The business learns on 31 December 2016 that the fair values for the land and motor vehicle have fallen to $140 000 and $34 000 respectively. The general journal entries (ignoring the tax effect of revaluation decreases) to record the revaluation decreases are:



2016				
Dec.	31	Expense on Revaluation of Land (P/L)	10 000	
		Land		10 000
		(Revaluation decrease on land)		
	31	Accumulated Depreciation – Motor Vehicle	25 000	
		Expense on Revaluation of Motor Vehicle (P/L)	6 000	
		Motor Vehicle		31 000
		(Revaluation decrease on motor vehicle)		

As with revaluation increases, depreciation charges in future for the motor vehicle must now be based on the newly established fair value of $34 000.

Reversals of increases and decreases

In a future period or periods, the initial revaluation adjustments accounted for may reverse. If so, the revaluation increase (decrease) should be offset against the previous revaluation decrease (increase) for that class of asset.

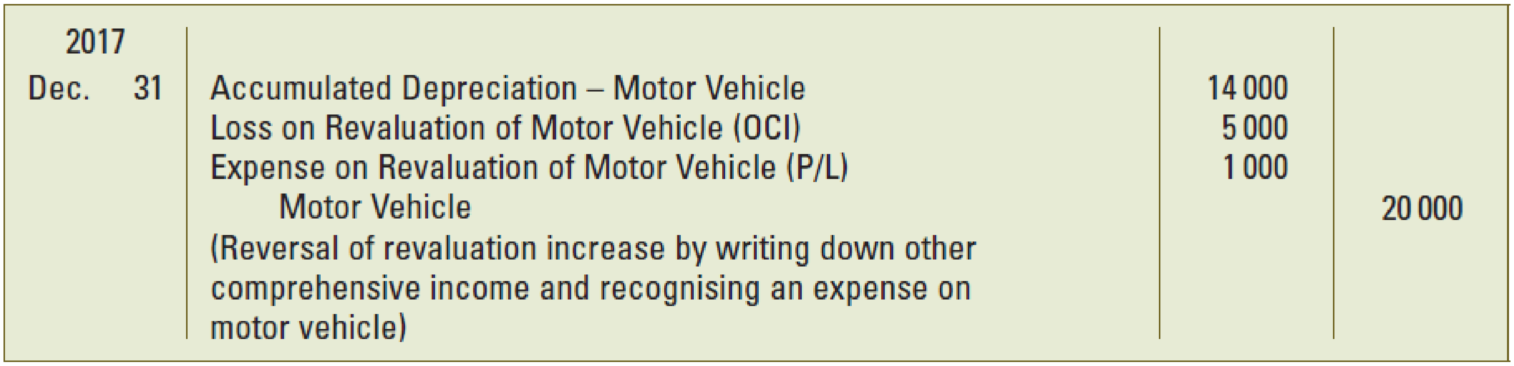
Reversal of an initial increase

For reversal of an initial revaluation increase credited to revaluation surplus, according to IAS 16/AASB 116, the decrease in an asset's carrying amount shall be recognised in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset.

The decrease recognised in other comprehensive income is debited to a Loss on Revaluation (OCI) account, which is transferred to the Other Comprehensive Income Summary account at the end of the reporting period. The OCI Summary is then closed to reduce the amount accumulated in the Revaluation Surplus for that asset. However, the Revaluation Surplus for that asset can only be written down to the extent that it has been previously written up. To illustrate, consider the motor vehicle owned by Garden Landscaping on 31 December 2017 after the revaluation increase and depreciation charge:

Motor vehicle	$45 000	$31 000
Less: Accumulated depreciation	14 000	

On 31 December 2017, it is discovered that the carrying amount of the vehicle ($31 000) exceeds its fair value ($25 000). The revaluation decrease of $6000 reverses the previous revaluation increase ($5000) recognised on 31 December 2016 as well as recognising an expense for the additional $1000 decrease. The entry to record the reversal is:



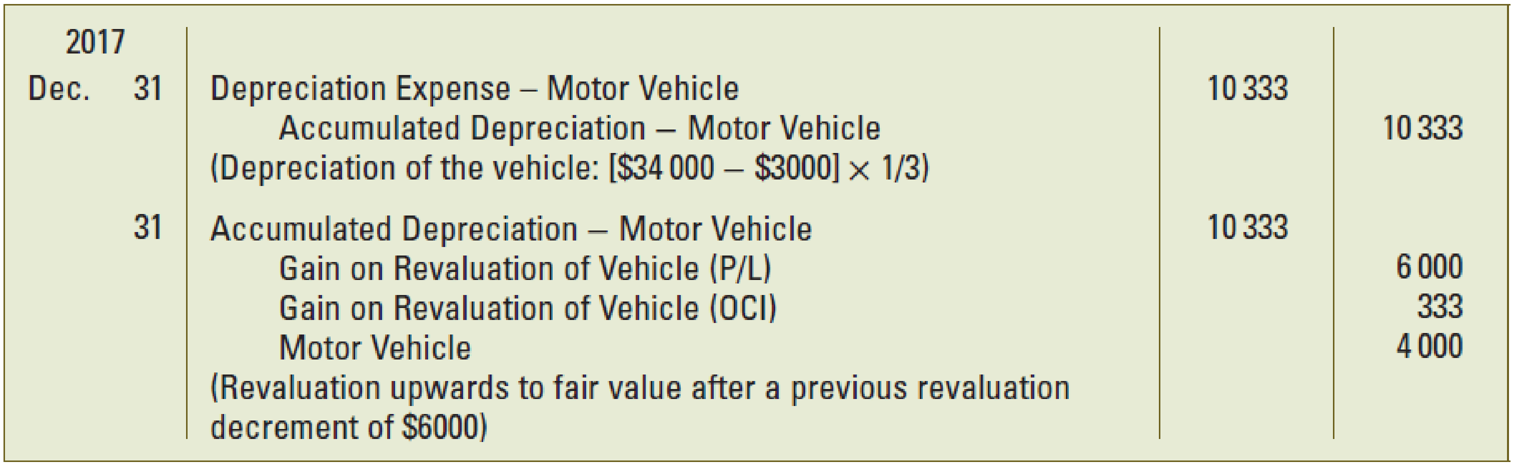
2017			
Dec. 31	Accumulated Depreciation – Motor Vehicle	14 000	
	Loss on Revaluation of Motor Vehicle (OCI)	5 000	
	Expense on Revaluation of Motor Vehicle (P/L)	1 000	
	Motor Vehicle		20 000
	(Reversal of revaluation increase by writing down other comprehensive income and recognising an expense on motor vehicle)		

In general purpose financial statements, the expense on revaluation of the motor vehicle ($1000) is reported as a reduction of profit, but the loss on revaluation of the motor vehicle ($5000) is reported in the statement of profit or loss and other comprehensive income below the profit figure, in accordance with the requirements of IAS 16/AASB 116. The expense on revaluation ($1000) is transferred to the Profit or Loss Summary account, and the OCI loss ($5000) is then transferred to OCI Summary, at the end of the reporting period. The OCI Summary account is then closed off to Revaluation Surplus by $5000 to reduce the surplus balance to zero for the motor vehicle.

Reversal of an initial decrease

According to IAS 16/AASB 116, any increase in an asset's fair value which reverses a previous revaluation decrease must be recognised in profit or loss, but only to the extent that it reverses any previously recognised revaluation expense on the same asset. Any reversal in excess of the previous write-down should then be credited to the Gain on Revaluation. This Gain on Revaluation is then transferred to the OCI Summary and is reported in the statement of profit or loss and other comprehensive income below the profit figure as an increase in equity. The OCI Summary account is closed to Revaluation Surplus at the end of the reporting period.

To illustrate, consider the motor vehicle owned by Garden Landscaping that was revalued downwards to its fair value of $34 000 on 31 December 2016, as discussed above. Assume now that on 31 December 2017, the fair value of the vehicle is assessed at $30 000. Before the revaluation adjustment, depreciation for the year must be recognised, based on a useful life of 3 years and a residual value of $3000, as shown below. This will record the vehicle at a carrying amount of $23 667 on 31 December 2017 before the revaluation adjustment.



2017				
Dec.	31	Depreciation Expense – Motor Vehicle	10 333	
		Accumulated Depreciation – Motor Vehicle		10 333
		(Depreciation of the vehicle: [$34 000 – $3000] × 1/3)		
	31	Accumulated Depreciation – Motor Vehicle	10 333	
		Gain on Revaluation of Vehicle (P/L)		6 000
		Gain on Revaluation of Vehicle (OCI)		333
		Motor Vehicle		4 000
		(Revaluation upwards to fair value after a previous revaluation decrement of $6000)		

At the end of the reporting period, as part of the closing process, the Gain on Revaluation (OCI) ($333) is closed to OCI Summary and the Gain on Revaluation (P/L) ($6000) is closed to Profit or Loss Summary. From the OCI Summary, the amount of $333 is then credited to Revaluation Surplus and reported in equity as a reserve.

LEARNING CHECK

- ☐ An entity can measure an item of property, plant and equipment using either a cost model or a revaluation model after its initial acquisition.
- ☐ If the revaluation model is adopted, revaluations for each class must be at fair value, which may result in each asset being adjusted either upwards or downwards. If the initial adjustment is upwards, the entity must credit a revaluation surplus for the increase; if downwards, the entity must recognise an expense for the decrease.
- ☐ Reversals of revaluation increases or decreases must be adjusted against previous decreases or increases.
- ☐ Depreciation must still be accounted for during the period as a write-down of the asset's fair value at the beginning of the period.

15.2 The impairment test

LO 2 **Account for the write-down of an impaired non-current asset to recoverable amount.**

In relation to non-current assets, an entity is also subject to the requirements of accounting standard IAS 36/AASB 136 ***Impairment of Assets*** to be applied whenever the carrying amount of a non-current asset is greater than its recoverable amount.

Whenever an asset's carrying amount exceeds recoverable amount, the asset is said to suffer an **impairment loss** and must be written down to recoverable amount. The write-down must be ***recognised as an expense in that period if the cost model is used, or accounted for as a revaluation decrease if the revaluation model is used*** (as discussed in the previous section). To illustrate, assume that Garden Landscaping Ltd has two non-current assets valued under the cost model on 31 December 2016:

Land		$150 000
Motor vehicle	$65 000	
Accumulated depreciation	25 000	40 000

On 31 December 2016 an estimate is made of the assets' recoverable amounts: the land has a recoverable amount of $160 000 and the motor vehicle $35 000. Because the carrying amount of the land is less than the recoverable amount, no entry is necessary; however, for the motor vehicle, the following journal entry is required:

2016			
Dec. 31	Impairment Loss on Motor Vehicle	5 000	
	Accumulated Depreciation and Impairment Losses		5 000
	(Impairment of vehicle to recoverable amount)		

Note that the accumulated depreciation recognised by the entity is increased by the size of the impairment loss on the asset when the asset is written down to recoverable amount. The contra-account to the asset is retitled ‘Accumulated Depreciation and Impairment Losses’. If the vehicle was considered to have a residual value of $5000 and a further useful life of 2 years, depreciation on a straight-line basis per annum would then be based on the recoverable amount and be equal to $15 000 (i.e. [$35 000 − $5000] ÷ 2).

The write-down of non-current assets to recoverable amount occurs only if the asset has satisfied an ‘impairment test’, a test developed in IAS 36/AASB 136. Under the standard, an asset is ‘impaired’ whenever its recoverable amount is less than its carrying amount. **Recoverable amount** is defined as the higher of an asset’s fair value less costs to sell and its value in use. **Value in use** is based on present value calculations of future net cash flows expected from the continuing use of an asset and from its disposal at the end of its useful life. In the standard, the impairment test must be applied to an individual asset, but if this is not possible, it must be applied to a **cash-generating unit**, which is defined as the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. An example of a cash-generating unit provided in IAS 36/AASB 136 is where an entity has a contract with a city council to operate five separate bus routes. Even though it may be possible to identify the assets devoted to each route and the cash flows from each, the council will not permit the entity to drop a route even if that route is operating at a loss. Hence, the cash-generating unit is not each individual route, but the combination of all five bus routes, in accordance with the terms of the contract with the council.

Under IAS 36/AASB 136, an impairment loss occurs for a cash-generating unit when the recoverable amount of the group of assets as a whole is less than the carrying amount of that group. The recoverable amount determined is for the group of assets in combination rather than for the sum of the recoverable amounts of the individual assets in the group. Whenever a cash-generating unit is impaired, the entity must write down the group of assets and recognise an impairment loss either as an expense or as a revaluation decrease. Coverage of the impairment of cash-generating units is provided in advanced accounting texts.

The entity is also required to make an assessment at the end of each reporting period for impairment. If it subsequently finds that the group of assets previously written down for impairment is no longer so impaired, the entity is required to reverse the impairment loss to the extent that the loss no longer exists.

LEARNING CHECK

- ☐ An entity must assess its non-current assets for impairment at the end of each reporting period.
- ☐ An impairment loss occurs if the carrying amount of an asset or cash-generating unit exceeds its recoverable amount.
- ☐ Impairment losses are recorded as expenses under the cost model or accounted for as a decrease under the revaluation model.

15.3 Derecognition of non-current assets

LO 3 **Account for the derecognition of non-current assets by scrapping, by sale, or by exchange.**

Scrapping non-current assets

When a non-current asset is no longer useful to the entity and ***has no sales value***, it is discarded or scrapped and must be derecognised (written off) in the accounting records in accordance with IAS 16/ AASB 116. If the asset is fully depreciated, there is no expense on disposal. For example, if a machine that has been fully depreciated by $7000 is discarded because it is worthless, the entry to scrap the machine is:

July	2	Accumulated Depreciation – Machinery	7 000	
		Machinery		7 000
		(Scrapped a fully depreciated machine)		

Sometimes a non-current asset is scrapped as worthless before it is fully depreciated, in which case the carrying amount of the asset represents an expense on disposal, and this expense must be recognised in the current period under IAS 16/AASB 116. If the machine above is discarded when it has an accumulated depreciation balance of $6500, a $500 expense is recorded when the asset is removed from the accounts:

July	2	Accumulated Depreciation – Machinery	6 500	
		Expense on Disposal of Machinery	500	
		Machinery		7 000
		(Scrapped a partially depreciated machine)		

If expenditures are incurred for the removal of the asset, they increase the expense on disposal. Assuming the company had to pay $400 plus 10% GST to have the machine dismantled and hauled away, the entry is:

July	2	Accumulated Depreciation – Machinery	6 500	
		Expense on Disposal of Machinery	900	
		GST Receivable	40	
		Machinery		7 000
		Cash at Bank		440
		(Scrapped a partially depreciated machine and incurred disposal costs of $400)		

In the previous illustrations, it is assumed that the asset is disposed of at the beginning of the financial year. When non-current assets are disposed of during the year, an entry should be made to record depreciation expense for the fractional portion of the year before disposal, regardless of the method of disposal. If the monthly depreciation on the machine above was $100, for example, and the machine was discarded on 1 September, the entry to record depreciation for the 2 months before disposal is:

Sept.	1	Depreciation Expense – Machinery	200	
		Accumulated Depreciation – Machinery		200
		(Depreciation on scrapped machine to date of disposal)		

The entry to record the scrapping of the machine in accordance with the standard is:

Sept.	1	Accumulated Depreciation – Machinery	6 700	
		Expense on Disposal of Machinery	300	
		Machinery		7 000
		(Scrapped a partially depreciated machine)		

Sale of non-current assets

A second way of disposing of a non-current asset is to sell it. This could happen at the end of the asset's useful life when the asset has been depreciated down to its residual value, or at some time during the asset's useful life, as illustrated below. If the selling price exceeds the carrying amount of the asset, there is a gain on disposal. This gain is reported in the income statement as part of income, but not as revenue under IAS 16/AASB 116. If the selling price is less than the carrying amount, there is a loss on disposal, which is reported as an expense.

To illustrate, assume that a machine with a cost of $22 000, a residual value of $2800 and a useful life of 8 years was acquired on 3 July 2012. After the adjusting entry for depreciation was made on 30 June 2017, the accounts showed the following balances:

Machinery	$22 000
Accumulated Depreciation – Machinery	12 000*
	$10 000

*($22 000 − $2800) ÷ 8 = $2400
$2400 × 5 years = $12 000

The machine was sold on 1 February 2018.

Before recording the sale, 7 months depreciation should be recorded for the period of July 2017 to January 2018:

Feb. 1	Depreciation Expense – Machinery	1 400	
	Accumulated Depreciation – Machinery ($2400 × 7/12)		1 400
	(Depreciation to the date of sale)		

After recording depreciation to the date of sale, the carrying amount of the machine is $8600 ($22 000 − $13 400). Entries to record the sale of the machine under three different assumptions as to selling price are presented below.

1. The machine is sold for $8600 (ignoring GST)

The entry that traditionally has been used to record the sale is presented below:

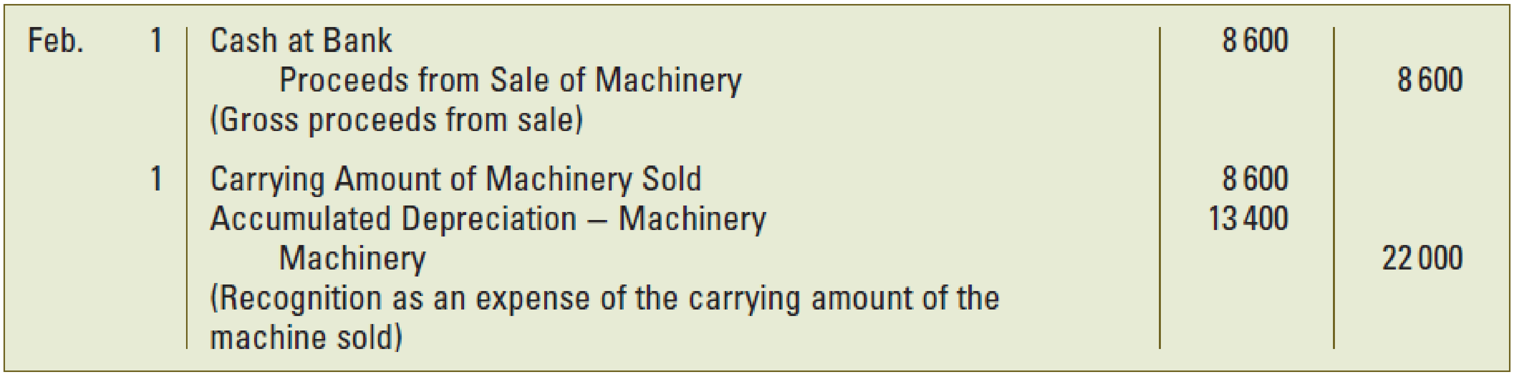
Feb. 1	Cash at Bank	8 600	
	Accumulated Depreciation – Machinery	13 400	
	Machinery		22 000
	(Sold a machine for its carrying amount)		

Because the machine was sold for its carrying amount, no gain or loss is recognised. The cash received is recorded and the cost of the machine and its related accumulated depreciation are

removed from the accounts. However, such an entry does not clearly show the gross proceeds and expenses involved in the disposal. Hence an alternative treatment is recommended in this book.

For the purpose of recording gross proceeds and of preparing cash flows from investing activities in line with IAS 7/AASB 107 ***Statement of Cash Flows***, any proceeds on sale of a non-current asset should be shown at the ***gross amount received***. Similarly, the carrying amount of an asset sold should be written off and treated as an expense from sale of the asset. This is similar to the treatment under the perpetual inventory system where the cost of inventory sold is debited immediately on sale to the Cost of Sales account as an expense from sales.

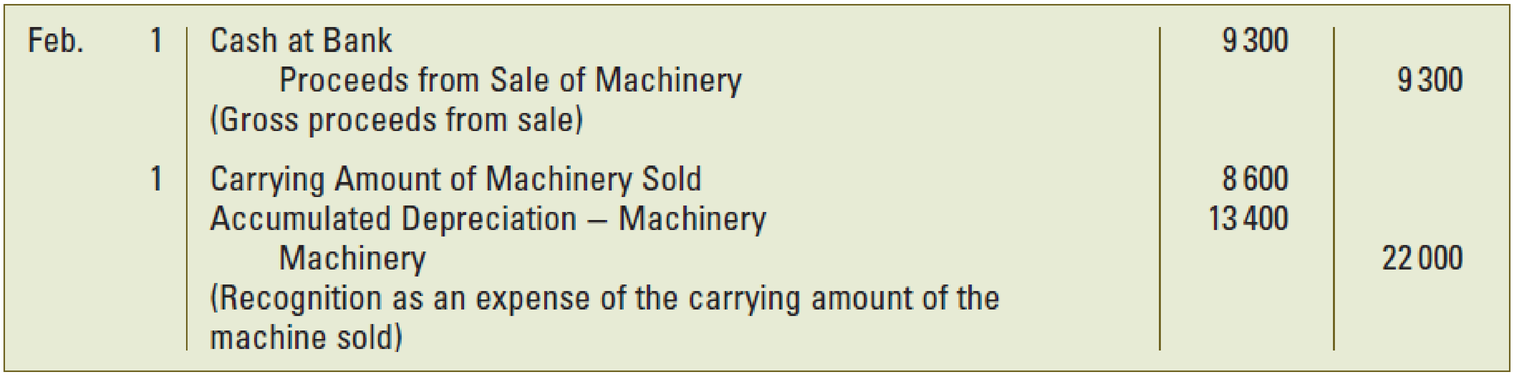
Therefore, we recommend that the following journal entries (in general journal format) should be made instead of the previous entry:



Feb.	1	Cash at Bank	8 600	
		Proceeds from Sale of Machinery		8 600
		(Gross proceeds from sale)		
	1	Carrying Amount of Machinery Sold	8 600	
		Accumulated Depreciation – Machinery	13 400	
		Machinery		22 000
		(Recognition as an expense of the carrying amount of the machine sold)		

The first entry records the proceeds on sale of the machine in terms of the gross amount received. The second entry records the elimination of the carrying amount of the machine sold from the accounting records. Any gain or loss on sale of the non-current asset for disclosure purposes in the income statement can be calculated as the difference between the Proceeds from Sale of Machinery account and the Carrying Amount of Machinery Sold account. In this case, because the sale amount exactly equals the carrying amount, there is neither a gain nor a loss.

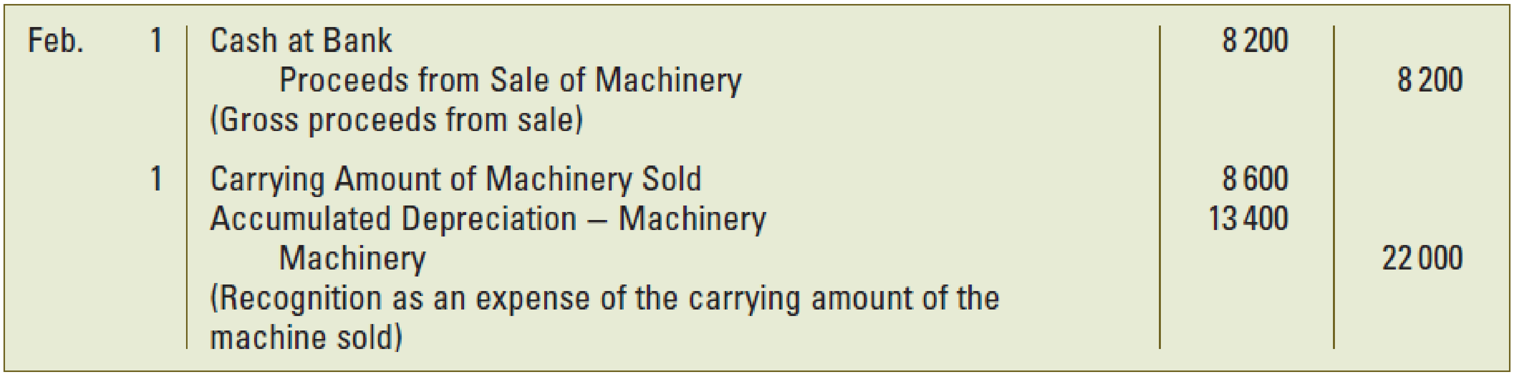
2. The machine is sold for $9300 (ignoring GST)



Feb.	1	Cash at Bank	9 300	
		Proceeds from Sale of Machinery		9 300
		(Gross proceeds from sale)		
	1	Carrying Amount of Machinery Sold	8 600	
		Accumulated Depreciation – Machinery	13 400	
		Machinery		22 000
		(Recognition as an expense of the carrying amount of the machine sold)		

Since the machine was sold for more than its carrying amount, the Proceeds from Sale of Machinery $9300 exceeds the Carrying Amount of Machinery Sold $8600 by $700. For external reporting purposes under IAS 1/AASB 101 ***Presentation of Financial Statements***, the gain on sale, $700, is disclosed separately in the statement of profit or loss and other comprehensive income or the notes thereto.

3. The machine is sold for $8200 (ignoring GST)



Feb.	1	Cash at Bank	8 200	
		Proceeds from Sale of Machinery		8 200
		(Gross proceeds from sale)		
	1	Carrying Amount of Machinery Sold	8 600	
		Accumulated Depreciation – Machinery	13 400	
		Machinery		22 000
		(Recognition as an expense of the carrying amount of the machine sold)		

Because the machine was sold for less than its carrying amount ($8200 − $8600), a loss of $400 is included as part of the entity's profit for the year.

Note that in all three cases for the sale of the machine, the second entry is exactly the same, because it is recording the expense of the carrying amount of the asset sold. Furthermore, in all three cases, the first entry is the same except for the amount of the proceeds (GST has been ignored for reasons of simplicity). Any gain or loss on sale of the non-current asset is determined by taking the difference between the Proceeds from Sale account and the Carrying Amount of Asset Sold account. Use of these two accounts allows for the easier generation of information for disclosure in an entity's general purpose financial reports, especially the statement of cash flows, as will be seen in a later chapter.

Derecognition of revalued assets

If an asset that has been revalued previously either upwards or downwards is disposed of, the gain or loss recognised on disposal should be included in the current period's profit. Any gain or loss is determined as the difference between the carrying amount of the revalued asset at the time of disposal (including depreciation up to the date of disposal) and the proceeds from disposal. Accounting for such cases is identical to that shown previously for the sale of non-current assets.

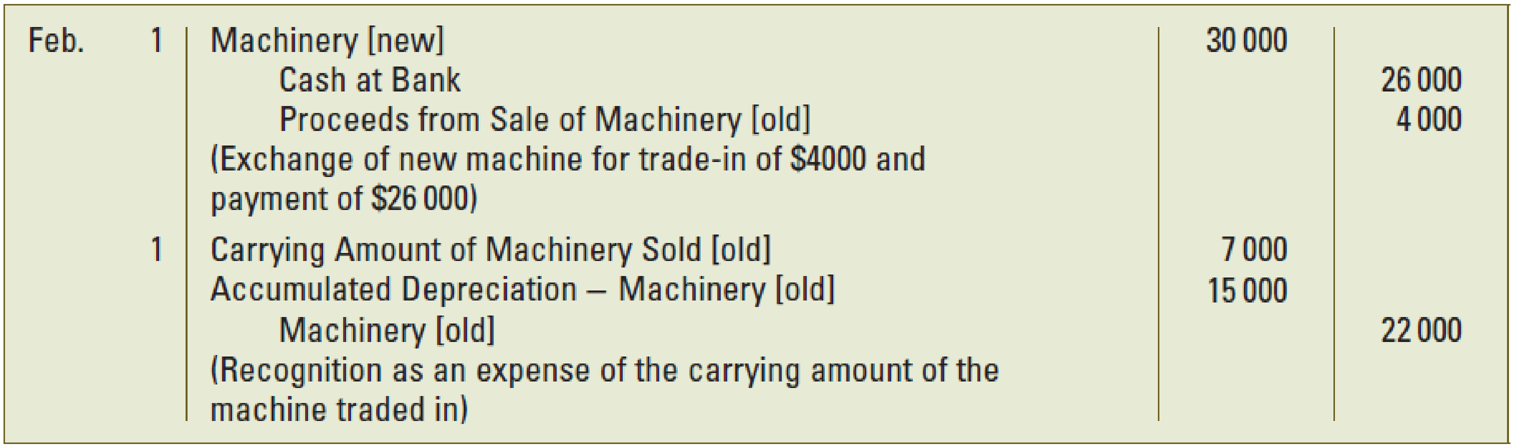
What is to happen to the Revaluation Surplus account whenever a revalued asset has been derecognised? According to IAS 16/AASB 116, the account cannot be transferred back to current profits. The standard indicates that an entity ***may*** transfer the Revaluation Surplus account to Retained Earnings either at the date of derecognition or before that date.

Detailed discussion of this is beyond the scope of this book. Further consideration of the implications of any transfers out of the Revaluation Surplus account and of the tax effects can be found in more advanced texts.

Exchanging non-current assets

Another way of derecognising a non-current asset is to trade it in on another asset. Such exchanges often occur with machinery, motor vehicles and equipment. A trade-in allowance for the old asset is deducted from the price of the new asset, and the balance is paid in accordance with the normal credit terms. Accounting procedures used for the exchange of assets are illustrated in the following example. GST is ignored.

Assume that a machine with a recorded cost of $22 000 and accumulated depreciation to date of exchange of $15 000 is traded in on a new machine. A fair trade-in allowance of $4000 is received for the old machine and $26 000 is paid in cash. The excess of the carrying amount of the old machine ($7000) over the trade-in allowance received ($4000) results in a loss of $3000, and the exchange is recorded in two entries as shown below:



Feb.	1	Machinery [new]	30 000	
		Cash at Bank		26 000
		Proceeds from Sale of Machinery [old]		4 000
		(Exchange of new machine for trade-in of $4000 and payment of $26 000)		
	1	Carrying Amount of Machinery Sold [old]	7 000	
		Accumulated Depreciation – Machinery [old]	15 000	
		Machinery [old]		22 000
		(Recognition as an expense of the carrying amount of the machine traded in)		

These entries record the new machinery at its cost of $30 000, i.e. the fair value of the assets given up in exchange for the new asset. The trade-in price of $4000 represents the fair value given up for the old machine. The first entry records the fact that the new machine was paid for by a trade-in allowance of $4000 plus $26 000 cash. In the second entry, the carrying amount of the old machine is removed from the records by transferring the carrying amount (i.e. cost of $22 000 less accumulated depreciation of $15 000) to expense. Note that any gain or loss made on the trade-in of the old machine is the difference between proceeds from sale and the carrying amount:

Proceeds from Sale of Machinery	$4 000
Carrying Amount of Machinery Sold	7 000

Loss on trade-in (sale) of machine	$3 000

Exchanging dissimilar assets

Sometimes assets that perform different functions in an entity are exchanged. Examples are the exchange of machinery for land or the exchange of a building for equipment. In these circumstances, the carrying amount of the old asset, i.e. the asset and related accumulated depreciation accounts, are removed from the records, and the asset purchased is recorded at its cost, represented by the fair value of assets given up to acquire it. To illustrate, assume that Dell Ltd exchanged a building with a cost of $125 000 and accumulated depreciation of $60 000, and a fair value of $90 000, for construction equipment. The exchange is recorded as follows (ignoring GST):

Jan.	5	Construction Equipment	90 000	
		Proceeds from Sale of Building		90 000
		(Exchange of building for new construction equipment)		
	5	Carrying Amount of Building Sold	65 000	
		Accumulated Depreciation – Building	60 000	
		Building		125 000
		(Recognition as an expense of the carrying amount of building sold)		

Note that the cost of acquiring the construction equipment is the fair market value ($90 000) of the building, which is regarded as sold for $90 000. The cost of the building ($125 000) and its related accumulated depreciation ($60 000) are removed from the accounts. A gain is calculated at $25 000, which is the difference between the proceeds on sale of the building ($90 000) and its carrying amount ($65 000).

If the fair value of the building is $50 000 rather than $90 000, the entries are:

Jan.	5	Construction Equipment	50 000	
		Proceeds from Sale of Building		50 000
		(Exchange of building for new construction equipment)		
	5	Carrying Amount of Building Sold	65 000	
		Accumulated Depreciation – Building	60 000	
		Building		125 000
		(Recognition as an expense of the carrying amount of building sold)		

Note in this case that a loss of $15 000 results because the fair value from sale of the building ($50 000) is less than the carrying amount ($65 000) of the building.

LEARNING CHECK

☐ An entity can derecognise an asset in several ways — scrapping it, selling it or exchanging it for another asset.

☐ A gain or loss is recognised as the difference between the proceeds on sale and the carrying amount of the asset at the date of the asset's derecognition.

☐ The treatment of an entity's revaluation surplus on derecognition is unclear in the standard and can therefore differ from entity to entity.

15.4 Composite-rate depreciation

LO 4 **Account for depreciation using composite rates.**

In previous illustrations, depreciation was calculated on each individual asset. An alternative approach, called **composite-rate depreciation**, is often used in practice by business entities with many similar assets in the one class of assets. Under this approach, a single average depreciation rate is applied to the cost of a functional group of assets such as office furniture or store equipment. The average depreciation rate is calculated by dividing the sum of the annual depreciation

charges for each asset in the group by the total cost of the assets. For example, the calculation of the composite rate for office furniture might be made as follows:

Asset	Cost	Residual value	Depreciable amount	Useful life (years)	Annual depreciation
Chair	$ 150	$22	$128	8	$ 16
Desk	470	70	400	10	40
Filing cabinet	390	70	320	10	32
	$9 750				$731

$$\text{Composite rate} = \frac{\$731 \text{ annual depreciation}}{\$9750 \text{ cost}} = 7.5\%$$

Although the total cost of office furniture will change as new assets are added and old assets are derecognised, the general mix is assumed to remain relatively the same. Additions and retirements are assumed to occur uniformly throughout the year; the composite rate is therefore applied to the average of the beginning and ending balances in the account for the year. If the Office Furniture account has a $9750 balance at the beginning of the period and a $12 500 balance at the end of the period, the end-of-period adjustment for depreciation is $834 ($9750 + $12 500 = $22 500 ÷ 2 = $11 125 × 0.075), and the following depreciation entry is prepared:

June	30	Depreciation Expense – Office Furniture	834	
		Accumulated Depreciation – Office Furniture		834
		(Depreciation on office furniture)		

When assets within the composite group are disposed of, no gain or loss results. The cost of the asset is credited to the asset account and accumulated depreciation is debited for the difference between the asset's cost and the amount realised from the sale. For example, assume a desk with a cost of $470 is sold for $100. The following entry is made to record the disposal (ignoring GST):

July	10	Cash at Bank	100	
		Proceeds from Sale of Office Furniture		100
		(Sale of desk)		
	10	Carrying Amount of Office Furniture Sold*	100	
		Accumulated Depreciation – Office Furniture	370	
		Office Furniture		470
		(Recognition as an expense of the carrying amount of desk sold)		

*Since no gain or loss can arise in this situation, the carrying amount of the furniture must equal the proceeds. The accumulated depreciation amount is therefore a residual.

When an asset in the group is traded in on a new one, the transaction is recorded in a similar manner. If the desk above is traded in on a new one with a cost of $600, i.e. a trade-in allowance of $200 and $400 paid in cash, the entry is (ignoring GST):

July	10	Office Furniture	600	
		Cash at Bank		400
		Proceeds from Sale of Office Furniture		200
		(Sale of desk traded in on new desk)		
	10	Carrying Amount of Office Furniture Sold	200	
		Accumulated Depreciation – Office Furniture	270	
		Office Furniture		470
		(Recognition as an expense of the carrying amount of desk traded in on new desk)		

Thus, Accumulated Depreciation – Office Furniture is adjusted in this case to $270 in order to make the proceeds from the sale of the old desk ($200) equal to its carrying amount. Hence no gain or loss results.

LEARNING CHECK

☐ An entity with many similar assets in the same class can use a composite-rate depreciation approach for that class.

☐ No gains or losses are recognised on assets derecognised if composite-rate depreciation is used.

15.5 Mineral resources

LO 5 **Describe the accounting for the acquisition and depletion of mineral resources.**

Mineral resources include mineral deposits, and oil and gas reserves. In their natural state they represent inventories that will be consumed in the future by mining or pumping to convert them into various products. For example, a copper mine is a deposit of unmined copper ore and an oilfield is a pool of unpumped oil. When mined or pumped they are converted into products for sale to customers. Until they are converted, they are assets shown on the balance sheet under such titles as Mineral Deposits and Oil and Gas Reserves.

Accounting for mineral resources is a somewhat complicated process governed by the requirements of several accounting standards. Any purchased mineral deposit, mine, or oil or gas reserve is to be accounted for as are other items of property, plant and equipment under IAS 16/AASB 116, the accounting procedures for which have been considered in the previous chapter and early in this chapter. Furthermore, as the mineral deposit, mine, or oil or gas reserve is used up, the entity must charge depreciation on the item as per the requirements of IAS 16/AASB 116.

Exploration and evaluation costs

If an entity engages in exploration for mineral resources, including their evaluation, the costs of such activities are to be accounted for under IFRS 6/AASB 6 ***Exploration for and Evaluation of Mineral Resources***. In Australia particularly, where AASB 6 applies, an entity's accounting policy for the treatment of exploration and evaluation expenditures is to be assessed according to each area of interest. An **area of interest** refers to an individual geological area whereby the presence of a mineral deposit or oil or natural gas field is considered favourable or has been proven to exist.

For each area of interest, AASB 6 requires an entity to expense the exploration and evaluation costs as incurred. However, the initial costs may be partially or fully capitalised and recognised as an 'exploration and evaluation asset' if:

- the rights to tenure of the area of interest are current
- at least one of the following conditions is met:
  - the costs are expected to be recovered through successful development and exploitation of the area of interest, or by its sale
  - at the end of the reporting period, the continuing exploration and evaluation activities have not yet reached a stage where a reasonable assessment can be made of the existence of economically recoverable mineral reserves.

After initial recognition, the exploration and evaluation asset is then subject to the requirements of IAS 16/AASB 116. The entity can apply either the cost model or the revaluation model to the asset, and the requirements for eventual depreciation of the asset. Irrespective of the model adopted, the entity must then apply the impairment test under IAS 36/AASB 136. When facts and circumstances indicate that the carrying amount of the asset exceeds its recoverable amount, the entity must recognise an impairment loss. See further details of the impairment test earlier in this chapter.

Development costs, construction costs and inventories

After an entity has assessed that a mineral deposit or an oil or gas reserve is suitable for development, any costs of development are to be treated in accordance with IAS 38/AASB 138 ***Intangible Assets***. Further discussion of development costs follows later in the chapter under the heading 'Intangible assets'.

Once construction has begun in the area of interest, the entity is required to account for construction costs under IAS 16/AASB 116. Construction costs include the erection of buildings on-site and installation of equipment useful for extraction of the mineral resources. These assets should be recorded initially at cost and depreciated over their useful lives or over the life of the mineral resource, whichever is shorter. The entity can then continue to apply the cost model to these assets, or can choose the revaluation model.

As soon as the entity has inventories of mineral ore, oil or gas from its activities, these inventories must then be accounted for under IAS 2/AASB 102 ***Inventories***, which was covered in a previous chapter.

Amortisation

When a mineral resource becomes a viable proposition, and the production of inventories of ore or natural gas or oil begins, the exploration and evaluation asset recognised under AASB 6 should then be amortised. So, too, should any mineral resource purchased from an external party. **Amortisation** of mineral resources is calculated in a similar way to depreciation under the units-of-production method. The cost of the mineral resource (minus residual value) is divided by the estimated number of units available, such as tonnes of copper ore, to arrive at an amortisation rate per unit. This amortisation rate is then multiplied by the number of units removed during the period to determine the total amortisation charge for the period. If the exploration and evaluation asset for a copper mine at 1 July, the beginning of production, is \$100 000 000, or if the copper mine is purchased on that date for \$100 000 000 and the mine has a residual value of \$10 000 000, and contains an estimated 4 500 000 tonnes of copper ore, the amortisation rate per tonne is \$20 (\$100 000 000 − \$10 000 000 = \$90 000 000 ÷ 4 500 000 tonnes). If 400 000 tonnes of ore are mined during the first year, the amortisation charge for the year is \$8 000 000, and is recorded as follows:

June	30	Amortisation of Copper Mine Accumulated Amortisation – Copper Mine (Amortisation for the year)	8 000 000	8 000 000

On the balance sheet at the end of the first financial year, the copper mine is shown as follows:

Exploration and evaluation costs (copper mine)	$100 000 000	
Less: Accumulated amortisation	8 000 000	$92 000 000

Amortisation represents a part of the cost of the resource extracted or product produced. It is possible that a mineral resource extracted in one year may not be sold until a later year. In that case, the unsold portion represents inventory and should be reported as a current asset. For example, if only 300 000 tonnes of the copper ore in the illustration are actually processed and sold during the year, $6 000 000 is recorded as amortisation expense (included in cost of ore sold) and the remaining $2 000 000 is included as part of the cost of Inventory of Copper Ore on the balance sheet/statement of financial position. In other words, amortisation is recorded in the year in which the copper ore is mined and is then allocated to cost of sales and inventory, based on the number of units sold and the number of units retained in inventory, by the following entry:

June	30	Cost of Sales Inventory of Copper Ore Amortisation of Copper Mine (Allocation of amortisation of copper mine)	6 000 000 2 000 000	8 000 000

Of course, the cost of the inventory on hand at year-end also would include labour costs and other extraction costs.

Depreciation of related construction assets

Depreciation of assets constructed at the area of interest is calculated on a similar basis to amortisation by use of the units-of-production method.

To illustrate, assume that mining equipment with a cost of $4 500 000 and a normal useful life of 15 years is installed at the copper mine in the preceding illustration. The copper ore is being mined at a rate that will exhaust the mine in approximately 10 years. At the end of that time, the equipment will be abandoned. Thus, to the entity, the useful life of the equipment is only 10 years. In this case, depreciation on the equipment should be based on the life of the mine. The depreciation rate per tonne would be $1 ($4 500 000 ÷ 4 500 000 tonnes), and the depreciation charge for mining equipment in the first year would be $400 000 ($1 × 400 000 tonnes).

The depreciation entry is:

June	30	Depreciation of Equipment Accumulated Depreciation – Equipment (Depreciation for the year)	400 000	400 000

Like amortisation, depreciation is allocated to expense and inventory based on the number of units sold and the number of units retained in inventory.

BUSINESS KNOWLEDGE

State's great strength is in its diversity

How will Queensland's economy fare as minerals investment winds down?

The weakness of coal prices is threatening the viability of new projects. And, while the three gas projects in Gladstone will continue to contribute to growth for several years yet, what will replace them?

We expect mining investment to decline by half across the next four years. Add to that the impact on rail and port projects. And the government isn't helping by cutting back aggressively. Our forecast is for total engineering construction in Queensland to fall by 37 per cent during the next four years. That's a huge adverse effect on growth.

However, the legacy of the boom is increased capacity. And that will offset the negative effect of falling investment as projects come into operation.

Moreover, Queensland, having benefited from the mining investment at the expense of its trade-exposed industries during the boom, tilting its economy towards servicing mining investment, will go through the reverse process as falls in the Australian dollar drive structural change — reverting to balanced growth.

Queensland is a diversified economy. It has been growing strongly for a long time, well above the Australian average and long before this mining boom. The growth has been underwritten by a strong uptick in population, in turn underpinned by the state's ability to provide jobs.

Source: Extract from Gelber, F 2013, 'State's great strength is in its diversity', ***The Australian***, 31 October.

LEARNING CHECK

☐ An entity that explores for mineral resources is able to regard the costs of exploration and evaluation as an asset in certain circumstances as specified in AASB 6.

☐ The exploration and evaluation asset is amortised over the life of the resource and subject to a regular impairment test.

☐ Any assets constructed at the area of interest must be treated as per the requirements of IAS 16/AASB 116.

15.6 Biological assets and agricultural produce

LO 6 Describe the nature of biological assets and agricultural produce and how to account for them.

Other important categories of assets, particularly in primary-producing countries such as Australia, are biological assets and agricultural produce. **Biological assets** are defined in IAS 41/AASB 141 ***Agriculture*** as living animals or plants, and **agricultural produce** is defined as the harvested product of the entity's biological assets. Biological assets and agricultural produce include:

- livestock such as sheep, from which are harvested wool and meat, cattle for dairy products and beef, chickens for eggs and meat, pigs for meat, and fish and other marine life as part of the industry of aquaculture
- vines, which produce berries, grapes and wine

- trees in a forest, which produce logs and timber
- bushes and other plants, which produce tea, coffee, sugar cane, fruit and vegetables
- exotic animals such as angora goats and alpacas for wool; and emus, crocodiles and kangaroos for meat.

IAS 41/AASB 141 requires all biological assets and agricultural produce controlled by an entity to be recognised in the accounting records when their fair values or costs can be determined with a faithfully representative, verifiable measure and it is probable that the future economic benefits associated with the assets will eventuate. The basis for measurement of ***biological assets*** is the fair value less costs to sell (hereafter referred to as **net fair value**). However, if a faithfully representative measure of fair values is not possible, then biological assets are to be measured at cost less any accumulated depreciation and any impairment losses only until fair values can be estimated.

Agricultural produce harvested from the entity's biological assets is also measured at net fair value. This measurement is regarded as the cost of the produce for the purpose of applying IAS 2/AASB 102 ***Inventories***; consequently, the value cannot be increased above this deemed cost, but can be written down in applying the lower of cost and net realisable value rule.

A gain or loss arising from ***initial*** recognition of a biological asset or agricultural produce at net fair value must be included in the entity's profit or loss for the period in which it arises. Similarly, for any change in the net fair value of a biological asset in ***subsequent*** periods, the entity must recognise this change as a gain or loss in the income statement for the period in which the change arises. This is done by debiting (crediting) the asset and crediting (debiting) an appropriately titled gain (loss) account, depending on the nature of the biological asset. However, as soon as the produce of a biological asset becomes non-living (e.g. the fruit picked from the trees) or the asset itself becomes non-living, either through harvest, felling or slaughter, the non-living agricultural produce must be accounted for as inventory. The initial net fair value of the agricultural produce is then regarded as its cost immediately after it becomes non-living.

The treatment of biological assets and agricultural products on a net fair value basis is considered to provide more relevant information to the users of financial statements, because the historical cost of these assets may have very little to do with their value. For example, it is more useful to determine the net fair value from a successful lambing season than to measure the historical cost of the birth of lambs. Assigning historical costs to natural increase and to budding trees is a meaningless activity.

LEARNING CHECK

- ☐ An entity with biological assets and agricultural produce must value these assets at net fair value, equal to fair value less costs to sell.
- ☐ The net fair value of agricultural produce is deemed to be its cost for reporting as inventory.

15.7 Intangible assets

LO 7 **Describe the nature of intangible assets and the problems of accounting for them.**

There are certain assets that appear to have no physical substance but derive their value from the future economic benefits that may eventuate for the entity that controls them. These types of assets are often referred to as 'intangibles'.

An **intangible asset** is defined in IAS 38/AASB 138 ***Intangible Assets*** as an identifiable non-monetary asset without physical substance. They are usually held for use in the production or supply of goods or services, for rental to others, or for administrative purposes. Some assets that lack physical substance, such as accounts receivable, are not regarded as intangible assets because they are monetary in nature, i.e. their future benefits are measured by a fixed number of dollars receivable.

Assets may be further classified as ***identifiable*** or ***unidentifiable***. **Identifiable assets** are those that are 'separable', that is, capable of being separated or divided from the entity and sold or transferred or rented or exchanged or licensed. Some intangibles, such as patents, trademarks, brand names, franchises, licences, copyrights and mastheads, are often called identifiable intangibles. If any assets cannot be separated from the entity, they are regarded as 'unidentifiable assets' and are referred to as 'goodwill'. Goodwill is discussed in a later section of this chapter.

Separately acquired intangibles

The basic principles followed in IAS 38/AASB 138 to account for intangible assets are similar to those used to account for property, plant and equipment. Those intangibles that are purchased by an entity are recorded initially at their cost (without GST). Accounting for intangibles is somewhat more difficult, however, because the apparent lack of physical substance makes their identification and valuation more difficult.

Consequently, IAS 38/AASB 138 requires an intangible asset acquired externally to be recognised only if the 'cost' of the asset can be measured, assuming that the future economic benefits from the asset will probably flow to the entity. As with property, plant and equipment, the cost of an intangible asset comprises its purchase price, including import duties, any non-refundable GST and any directly attributable expenditure on preparing the asset for its intended use, including professional fees for legal services.

Intangible assets may also be acquired as a result of a business combination, where one entity acquires the net assets of another entity. The accounting treatment of intangibles acquired in a business combination is covered in more advanced texts.

Internally generated intangibles

The fact that many intangibles are internally generated and not acquired in an arm's-length trans-action causes valuation problems, and the standard states that any internally generated intangible can be recognised only if its 'cost' can be measured. It is argued in IAS 38/AASB 138 that certain internally generated items will never satisfy the criteria for recognition (namely brand names, mastheads, publishing titles, customer lists and items similar in substance) and therefore should not be recorded in the accounts. Hence, any of the internally generated brand names described in the scene setter could not appear in the entity's statement of financial position under IAS 38/AASB 138.

Nevertheless, for other internally generated intangibles (e.g. patents, copyrights), the entity must determine whether the intangible is in the 'research' phase or the 'development' phase. In this context, **research** is defined as an original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. **Development** is the application of research knowledge to a plan or design for the production of new materials, products, processes, systems or services before commercial production. It is argued in IAS 38/AASB 138 that no internally generated intangible asset arising from the research phase should be recognised and that all expenditure on the research phase should be recognised as an expense when incurred.

However, an intangible asset arising from development can be recognised as an asset, but only if the entity can demonstrate ***all*** of the following:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale
- its intention to complete the asset and use or sell it
- its ability to use or sell the asset
- how the asset will generate probable future economic benefits, including a demonstration that a market exists for the asset or its products
- the availability of adequate resources to complete the development and to use or sell the asset
- its ability to measure the expenditure on the asset in the development phase.

These tests are more stringent than for internally generated property, plant and equipment, and it is expected that few internally generated intangibles will satisfy such criteria, even though they may be quite valuable and information as to their existence may be relevant for the decision making of user groups.

Intangibles subsequent to initial recognition

The treatment of any additional costs incurred on an intangible asset after its purchase or its completion is similar to the treatment of subsequent costs on property, plant and equipment, as provided in IAS 16/AASB 116 (discussed in the previous chapter). In other words, subsequent costs must be added to the cost of the intangible asset only if they will enable the asset to generate future economic benefits.

IAS 38/AASB 138 establishes that intangible assets, after initial recognition, should be carried in the accounting records at cost less any accumulated amortisation (explained opposite) and impairment losses (explained earlier). However, IAS 38/AASB 138 also permits an alternative treatment, allowing intangible assets to be revalued provided that:

- the revaluation is to its fair value, as determined by reference to an active market
- revaluations are made with sufficient regularity so that the carrying amount does not differ materially from fair value at the end of the reporting period
- all other assets of the same class are revalued
- any increase in the valuation of the intangible is credited directly to equity as a revaluation surplus, and any decrease is recognised as an expense.

As there are limited active markets for intangible assets, it is expected that revaluations will be rare and that most intangibles will be recorded at cost, and amortised if required.

Whenever intangible assets are retired, disposed of or sold, the accounting treatment is the same as that for other non-current assets, as discussed earlier in this chapter.

Amortisation

The allocation of the depreciable amount of intangibles to the periods benefiting from their use is called **amortisation**. Amortisation is therefore similar to depreciation of property, plant and equipment. For many years accountants supported the view that some intangible assets had unlimited lives and therefore should not be amortised. IAS 38/AASB 138 accepts this view and requires the entity to assess each intangible asset to see whether its useful life is finite or indefinite. If the intangible asset arises from contractual or other legal rights, the useful life cannot exceed the period of those rights, but may be shorter, depending on the period of time over which the entity plans to use the asset. An intangible asset with a finite useful life must be amortised on a systematic basis over that useful life. Residual values for such intangibles are assumed to be zero unless there is an active market for the asset and residual values can be determined from that market, or there is a commitment by a third party to buy the asset at the end of its useful life.

The amortisation method used must reflect the pattern in which the asset's future economic benefits are consumed by the entity. If the pattern cannot be determined with a faithfully representative measure, the straight-line method must be used. An Accumulated Amortisation account should be used, with the amortisation entry consisting of a debit to Amortisation Expense and a credit to Accumulated Amortisation.

For an intangible asset with an indefinite useful life, amortisation must not occur. Furthermore, the useful life of the asset must be reviewed each period to determine whether events and circumstances still continue to support the indefinite life assumption. The entity is also required to test such an intangible asset for impairment under IAS 36/AASB 136. This is achieved annually by comparing the asset's carrying amount with its recoverable amount, or during a period if there is an indication that the asset may be impaired.

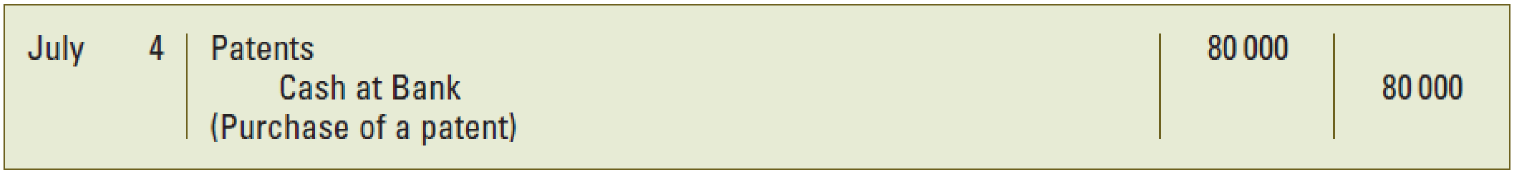
Patents and research and development costs

A **patent** is an exclusive right to produce and sell a particular product or to use a specific process for a period of 20 years. The reason for issuing patents is to encourage the invention of new machines, processes and mechanical devices.

Entities spend millions of dollars yearly on research and development for new products and new processes. These expenditures are vital in contributing to economic growth and increasing productivity. For many years, some business entities charged research and development costs to expense when incurred, and other businesses carried such expenditures forward as assets and amortised them over future periods. Because of this lack of uniformity, IAS 38/AASB 138 does not allow research costs to be recognised as an intangible asset. Research expenditure must be recognised as an expense when incurred. Only development costs that satisfy all the requirements discussed on page 654 can be carried forward as an asset.

Consequently, most research and development expenditures are charged to expense as incurred. The only additional costs involved in a patent developed internally are the legal fees paid to obtain the patent. Because these fees are usually relatively small, they too are generally charged to expense as incurred.

When a patent is ***purchased*** from its inventor or holder, rather than developed internally, the purchase price should be debited to the Patents account. For example, if a patent is purchased for $80 000 on 4 July, the entry is:



July	4	Patents	80 000	
		Cash at Bank		80 000
		(Purchase of a patent)		

Alternatively, this patent may have been ***internally generated***. Some of the development costs incurred, $30 000, were considered to be associated directly with this patent, and had been carried forward previously as an asset. The entry to record this patent on 4 July, consistent with IAS 38/ AASB 138 is:

June	4	Patents	30 000	
		Development Costs		30 000
		(The cost of an internally generated patent)		

Although a patent grants exclusive rights to the holder for 20 years, new inventions often make the patent obsolete earlier. The valuation of a patent should therefore be amortised over its useful life with a maximum of 20 years. If the patent recorded above is expected to have a useful life of 10 years, the following adjusting entry is made each year to record amortisation:

June	30	Amortisation Expense – Patents	3 000	
		Accumulated Amortisation – Patents		3 000
		(Amortisation of patents)		

Amortisation expense is reported as an expense and accumulated amortisation is shown as a deduction from patents as follows:

Patents	$30 000	
Accumulated amortisation	3 000	$27 000

Copyrights

A **copyright** is an exclusive right to reproduce and sell an artistic or published work. The exclusive right exists for the life of the author plus 70 years. Currently, if a copyright is ***purchased*** from its holder, the purchase price is debited to a Copyrights account and amortised over its useful life. Under IAS 38/AASB 138, any ***internally generated*** copyrights are accounted for in the same way as patents. Because it is difficult to determine how long benefits will be received, most copyrights are amortised over a relatively short period. A copyright is an asset, as it may have significant future economic benefits to its holder. If no faithfully representative value can be determined for a copyright, then the copyright cannot be recognised as a separate asset, but becomes part of the entity's goodwill (see later in this chapter).

Trademarks and brand names

The exclusive right to trademarks and brand names can be obtained by registering them with a government agency. The main cost of developing trademarks and brand names lies in advertising, which should be charged to expense in the period incurred. Nevertheless, if the promotional or advertising expenditure is incurred in the current period in connection with the introduction of a new product or new model, it may give rise to income in a future period that can be directly attributable to that promotional expenditure. In this case, it is argued that such costs could be regarded as an asset, i.e. as a cost of developing the trademark or brand name. However, under IAS 38/AASB 138, any ***internally generated*** trademark or brand name cannot be recognised as an asset. If a trademark or brand name is ***acquired externally***, its cost should be debited to the appropriate intangible asset account and amortised over its useful life.

Franchises

A **franchise** is a right granted by a company or government body to conduct business at a specified location or in a specific geographical area. Examples are the right to operate a fast-food operation such as McDonald's and Hungry Jacks or a menswear store such as Roger David and Lowes, and the right to operate a municipal or suburban bus service. Franchises are very common in Australia and represent a significant export business, as discussed in the scene setter to this chapter. The initial cost of a franchise may be substantial and should be capitalised and amortised over the term of the franchise or useful life, whichever is shorter. If initial franchise costs are immaterial, they may be expensed when incurred. Periodic annual payments under a franchise agreement should be expensed.

BUSINESS KNOWLEDGE

Wheeling and dealing in a business combination

For some people, acquiring a business adds up to ‘buying a job’. Others have it in their blood to run their own enterprise or see it as a good pre-retirement investment option. However, when it comes to either buying or selling a business, many still miss some fundamental knowledge that can financially make or break the experience. For instance, most vendors possess an unrealistic belief about how much their business is worth. And it’s no surprise that sellers are often disappointed by the extent to which they have to temper expectations in order to do a deal — particularly in tighter credit markets.

On the flip side are the business buyers who fail to check a vendor’s claims against the actual financial statements only to find that promises of a ‘magical’ cash component fail to materialise. Many of them have no clear idea of what type of business they want to buy, just that they want to work for themselves.

So, what are the golden rules in such transactions?

What business can learn from the dealmakers

- Be realistic about price when selling a business. Find out what the market is prepared to pay for a similar business.
- When selling a business, arrive at a fair price — and be satisfied with it — to reflect revenue and profit growth. Buyers will pay a premium for good operating businesses. But don’t expect buyers to pay top dollar for ordinary or disappointing performers.
- A vendor who has built a strong business should not sell for a big discount just to get out. Such a business decision will probably be regretted later.
- If selling, seriously consider the first offer because it’s often the best. Be a tough, reasonable and fair negotiator. Buyers can start to question if there is something wrong with a business that’s been on the market for a long time.
- When buying a business, don’t pay for potential. Why should you?
- Don’t buy a business on word-of-mouth figures. ‘Don’t buy what you can’t see.’ A vendor must be able to prove revenue and profit growth in income statements before consideration is given to buying the business.
- Aim for at least a 30 per cent annual return on capital. Focus on buying businesses with strong recurring income and a growing client base. Fall in love with profit potential, not the product.
- Check how long a business has been established and conduct market research to establish continuing demand for products and services.
- Consider the pros and cons before buying a franchise business. Benefits include training and support, marketing and brand recognition.

Source: Extract from Black A, ‘Wheeling and dealing’, ***InTheBlack. This article was written by the financial journalist Anthony Black, who has extensive experience writing on corporate and financial matters. For enquiries on past articles refer to ‘anthonyblack3@bigpond.com’.***

LEARNING CHECK

☐ An entity with intangible assets must value these assets initially at cost and amortise them over their useful lives, except in the case where useful life is indefinite.

☐ Research costs must be regarded as an expense, and development costs can be treated as an asset in limited circumstances.

☐ Internally generated brand names, mastheads, publishing titles and customer lists must never be recognised as assets under IAS 38/AASB 138.

15.8 Goodwill in a business combination

LO 8 Describe the nature of goodwill and how to account for goodwill acquired by an entity.

The term **goodwill** is used by accountants and the public to mean various things. It is often thought of as the favourable reputation of an entity among its customers. From an accounting standpoint, however, goodwill has a special meaning not limited to good customer relations. Goodwill is defined in IFRS 3/AASB 3 ***Business Combinations*** as the ‘future economic benefits arising from assets that are not capable of being individually identified and separately recognised’. Goodwill is to be regarded by the acquiring entity in a business combination as a non-current asset. It arises from many factors, including customer confidence, superior management, favourable location, manufacturing efficiency, good employee relations and market penetration. A successful entity continually develops these factors, but the expenditures made in doing so cannot be individually identified with each of these factors. The term ‘goodwill’ is therefore used to describe all these unidentifiable assets that cannot be separately measured.

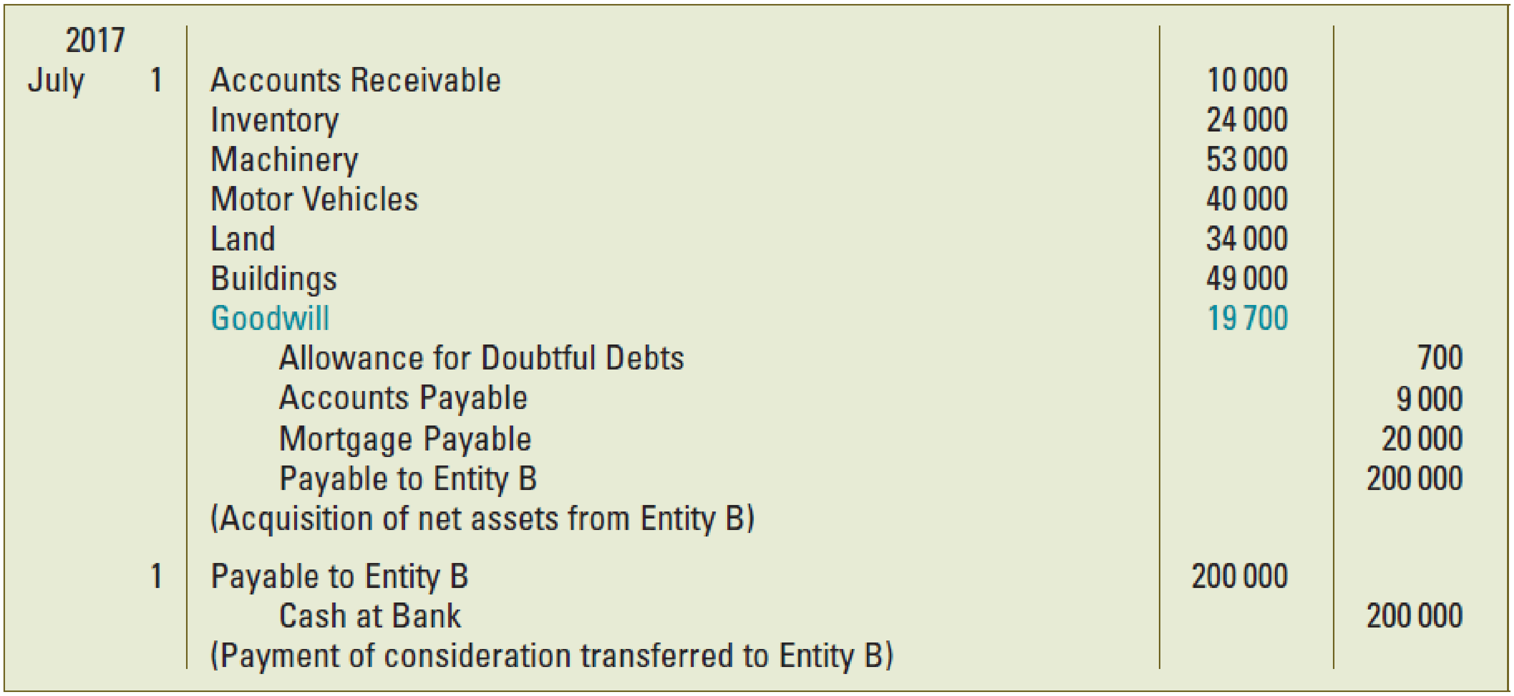
Goodwill may be purchased in an exchange transaction or generated internally by an entity. From an accounting viewpoint, under IAS 38/AASB 138 ***only purchased goodwill is to be recorded in the accounts***. The reason for this is that purchased goodwill can be measured on the basis of the amount paid for it in a business combination, whereas internally generated goodwill is not capable of such measurement.

Goodwill cannot be purchased or sold as a separate item, hence the recognition of purchased goodwill in the entity’s accounts occurs only when the entity has acquired another entity or part of such an entity in a business combination. The consideration transferred by the acquiring entity to purchase another entity is assigned firstly to the fair values of the identifiable assets and liabilities acquired, and any remainder is recorded as goodwill.

To illustrate, assume that Entity A acquires the business of Entity B on 1 July 2017. At acquisition date, the carrying amounts of Entity B’s identifiable net assets and their fair values are as listed below.

	Carrying amounts	**Fair values**
Accounts receivable	$ 10 000	$ 10 000
Allowance for doubtful debts	(500)	(700)
Inventory	21 000	24 000
Machinery (net)	60 000	53 000
Motor vehicles (net)	35 000	40 000
Land	25 000	34 000
Buildings	45 000	49 000
Accounts payable	(9 000)	(9 000)
Mortgage payable	(20 000)	(20 000)
	$166 500	$180 300

The consideration transferred by Entity A in acquiring Entity B is $200 000 in cash. Hence, Entity A has also purchased from Entity B something in excess of the fair value of the identifiable net assets which is equal to $180 300. This additional asset is goodwill of $19 700 ($200 000 − $180 300). The entries (in general journal form) made by Entity A to take over Entity B’s assets are as shown below (note that generally, when existing businesses are acquired, no GST is payable):



2017			
July 1	Accounts Receivable	10 000	
	Inventory	24 000	
	Machinery	53 000	
	Motor Vehicles	40 000	
	Land	34 000	
	Buildings	49 000	
	Goodwill	19 700	
	Allowance for Doubtful Debts		700
	Accounts Payable		9 000
	Mortgage Payable		20 000
	Payable to Entity B		200 000
	(Acquisition of net assets from Entity B)		
1	Payable to Entity B	200 000	
	Cash at Bank		200 000
	(Payment of consideration transferred to Entity B)		

Note carefully that the assets brought into the records of Entity A are valued at fair value, as fair value represents the cost paid by Entity A for these assets on acquisition date. The carrying amounts of the assets in Entity B's records are of little interest to Entity A. Entity A wants to measure the cost of the assets to itself rather than the cost to somebody else. Note also the use of a Payable account to record the consideration payable to the creditor, Entity B. The Payable account is then closed when the consideration is paid or transferred. Goodwill of $19 700 is recorded as the difference between the consideration transferred and the fair value of the identifiable assets and liabilities acquired. In accordance with IFRS 3/AASB 3, the goodwill must remain in the accounts at cost less any accumulated impairment losses. Any impairment of goodwill under IAS 36/ AASB 136 is recognised as an expense.

If the entity believes that the value assigned to goodwill ($19 700) exceeds the value of the unidentifiable assets acquired, the difference does not constitute goodwill and should be written off immediately to expense.

In rare circumstances, the consideration transferred by the acquirer may be less than the sum of the fair values of the identifiable assets and liabilities acquired. If so, the acquirer (Entity A) must first ***reassess the measurement*** of the fair value of the consideration transferred and the fair values of the assets and liabilities acquired. If the entity is satisfied with the measurement, then the difference between the consideration transferred and the sum of fair values is to be recognised immediately as a gain in profit, because the entity has made a 'bargain purchase'.

LEARNING CHECK

☐ Goodwill is an asset, representing the future benefits from assets that are not capable of individual identification or separate recognition.

☐ Goodwill is measured only when purchased in a business combination, and is the difference between the cost of a business combination and the fair value of the identifiable assets and liabilities acquired.

KEY TERMS

Agricultural produce, p. 652
Amortisation, pp. 651, 655
Area of interest, p. 650
Biological assets, p. 652
Carrying amount, p. 638
Cash-generating unit, p. 643
Composite-rate depreciation, p. 648
Copyright, p. 656
Development, p. 654
Fair value, p. 638
Franchise, p. 657
Goodwill, p. 657
Identifiable assets, p. 653
Impairment loss, p. 643
Intangible assets, p. 653
Net fair value, p. 653
Other comprehensive income, p. 639
Patent, p. 655
Recoverable amount, p. 643
Research, p. 654
Revaluation decrease, p. 638
Revaluation increase, p. 638
Value in use, p. 643

DISCUSSION QUESTIONS

1. Discuss whether and how a company should account for a revaluation increase and a revaluation decrease on property, plant and equipment. Discuss also the accounting treatment if such an increase or decrease is reversed.

2. What is meant by ‘recoverable amount’? When are assets to be written down to recoverable amount? What must an entity do if it is unable to determine the recoverable amount of an individual asset?

3. The following statement was included in the annual report of a company: ‘All research, advertising and promotion costs are charged to expense in the year in which they are incurred. This enables the company to begin each new year with a ‘clean slate’. Each new year benefits from the future earnings generated from new products developed and advertised in previous periods, and there is no offsetting by amortisation of introductory costs.’ Discuss whether this treatment of research, advertising and promotion costs complies with requirements of current accounting standards and the definition of an asset.

4. Discuss whether internally generated intangible assets should be treated in the same way as acquired intangible assets.

5. In order to comply with IAS 38/AASB 138 ***Intangible Assets***, how must an entity handle goodwill on the acquisition of the net assets of another entity? Is this treatment consistent with the principle of recording all assets acquired at cost? Explain why or why not.

6. ‘Machinery is an asset. It may be disclosed as a tangible asset, an intangible asset, or as part of goodwill.’ Discuss.

7. Aquarium Ltd has been developing specialised computer software for its own use. At the end of the reporting period, the company has spent $260 000 on the project. The final date for full implementation of the software is scheduled to be in 6 months’ time. However, the management accountant believes that the project will not be ready on time and that the company will have to acquire a commercial package instead, which will not be as efficient as the specialised software, but will be better than having no operational software at all. Others in the software department agree with her. In the financial statements, how should Aquarium Ltd account for the development costs of $260 000? Why?

8. Several years ago, Baxter Ltd acquired for $160 000 a patent for the manufacture of special ‘seal-tight’ plastic containers. After 5 years, the manufacture of these containers was discontinued because of the development of a new, more environmentally friendly container by a competitor. Baxter Ltd is continuing to deduct amortisation expense of $8000 per year based on the patent’s life of 20 years. Discuss whether this treatment is in accord with accounting standards.

9. What are biological assets? How should they be accounted for in a company’s accounting records?

10. Outline the treatment of exploration, evaluation and development costs on a mineral reserve in accordance with the latest accounting standards.

EXERCISES

Exercise 15.1 REVALUATIONS (INCREASE AND DECREASE) LO 1

Surguy Ltd has disclosed the following non-current asset classes as at 30 June 2016:

Machinery	$420 000	
Less: Accumulated depreciation	180 000	$240 000
Buildings	$800 000	
Less: Accumulated depreciation	240 000	$560 000

At 1 July 2016, the directors of Surguy Ltd decide to adopt the revaluation model and revalue the non-current asset classes to the following fair values:

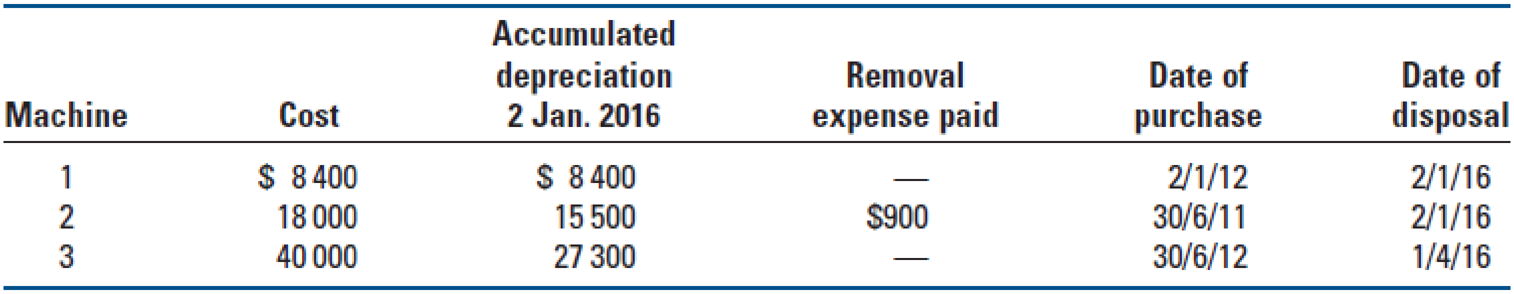
Machinery	$200 000
Buildings	720 000

Required

Prepare general journal entries to record the revaluations, including any closing entries at the end of the reporting period.

Exercise 15.2 DERECOGNITION OF ASSETS **LO 3**

Amorico Pty Ltd scrapped the following machines as worthless:



Machine	Cost	Accumulated depreciation 2 Jan. 2016	Removal expense paid	Date of purchase	Date of disposal
1	$ 8 400	$ 8 400	—	2/1/12	2/1/16
2	18 000	15 500	$900	30/6/11	2/1/16
3	40 000	27 300	—	30/6/12	1/4/16

Depreciation expense was recorded last on 31 December 2015.

Required

Prepare separate entries to record the disposal of the machines by Amorico Pty Ltd.

Exercise 15.3 SALE OF NON-CURRENT ASSETS **LO 3**

On 3 January 2014, Bennetti Ltd paid $33 000 for a machine with a useful life of 10 years and a residual value of $3000. On 31 December 2018, accumulated depreciation on the machine was $15 000. The machine was sold on 31 May 2019. Ignore GST.

Required

A. Prepare a general journal entry to record depreciation expense on the machine for the 5 months in 2019. Use the straight-line depreciation method.
B. Prepare an entry to record the sale of the machine on 31 May 2019, assuming a selling price of:
    1. $16 000
    2. $17 800.

Exercise 15.4 NON-CURRENT ASSET DERECOGNITION **LO 3**

Cosenza Ltd acquired a truck with a cost of $250 000, an estimated useful life of 6 years and a residual value of $30 000. Sum-of-years-digits depreciation was used. Ignore GST.

Required

Prepare journal entries for each of the following events.

1. Sell the truck for cash of $120 000 after 2 years of use.
2. Trade in the truck for a $40 000 allowance after 4 years on another truck with a cash price of $275 000.
3. Scrap the truck after 5 years of usage. The truck is given to a scrap dealer who pays $2000 to remove it.

Exercise 15.5 EXCHANGE OF SIMILAR ASSETS **LO 3**

On 3 January 2016, Greskowiak Ltd exchanged a machine with a cost of $430 000 and accumulated depreciation of $150 000 for a new similar machine with a cash price of $460 000. Ignore GST.

Required

A. Prepare general journal entries to record the exchange of the machines, assuming a trade-in allowance of $280 000 was received for the old machine and $180 000 was paid in cash.
B. Prepare general journal entries to record the exchange of machines, assuming a trade-in allowance of $250 000 for the old machine and $210 000 was paid in cash.

Exercise 15.6 EXCHANGE OF DISSIMILAR ASSETS **LO 3**

Kapor Ltd exchanged machinery with a cost of $350 000 and accumulated depreciation of $180 000 for a parcel of land. There were no other assets given in exchange. Ignore GST.

Required

Prepare general journal entries to record the exchange assuming:

1. the trade-in value of the machinery was $190 000
2. the trade-in value of the machinery was $150 000.

Exercise 15.7 REVALUATION AND DERECOGNITION **LO 1, 3**

On 1 January 2013, Leibhardt Ltd acquired two identical pieces of equipment for a total cost of $540 000 plus GST. It was estimated that each item would have a useful life of 8 years and a residual value of $40 000 each. The company uses the straight-line method of depreciation and its end of reporting period is 30 June.

On 1 July 2019, the company changed its accounting policy and revalued each item of equipment upwards by a total of $60 000, based on an independent valuer's report, to fair value. There was no need to revise useful lives or residual amounts. On 31 December 2020, one of the items of equipment was sold for $120 000 cash plus GST.

Required

Prepare entries (in general journal format) in relation to the equipment from acquisition date to 31 December 2020.

Exercise 15.8 MINERAL RESOURCES **LO 5**

Miyazono Ltd, which operated a silver, lead and zinc mine, was purchased by Pagnozzi Ltd for $112 000 000 (residual value $10 000 000). It is estimated that the mine will produce 25 million tonnes of ore. Mining equipment with a useful life of 12 years was installed at a cost of $6 000 000. Extraction of ore will exhaust the mine in about 10 years, after which time the equipment will be abandoned.

Required

A. Prepare entries for Pagnozzi Ltd to record amortisation of the mine and depreciation of the mining equipment for the first year, assuming that 2 000 000 tonnes of silver, lead and zinc ore were mined and sold.
B. Prepare a partial statement of financial position for Pagnozzi Ltd showing how the mine and the mining equipment would be reported at the end of the first year of operations.

Exercise 15.9 COMPOSITE-RATE DEPRECIATION **LO 4**

Reipl Ltd uses the composite-rate method to record depreciation of its store equipment. On 1 January 2016, the company owned the following store equipment (ignore GST):

Item	Cost	Residual value	Useful life
Display cases	$ 73 000	$3 000	10 years
Cash registers	28 000	8 000	5 years
Shopping trolleys	30 000	6 000	6 years
Shelving	30 000	2 000	7 years
Display racks	12 000	1 800	4 years
	$173 000		

Required

A. Calculate the composite rate for depreciating the store equipment.
B. Prepare the entry to record depreciation expense on 31 December 2016, assuming the store equipment account had a balance of $190 000 at year-end.
C. Prepare general journal entries to record the sale of a display case for $1500. The case had an

original cost of $2600.

D. Prepare general journal entries to record the exchange of a cash register with an original cost of $3200 for a new cash register with a cash price of $5000. The company received a trade-in allowance of $1400 for the old register and paid the balance of $3600 in cash.

Exercise 15.10 GOODWILL LO 8

Sage Ltd is considering the purchase of Rosemary Ltd, which produces a product that Sage Ltd uses in its manufacturing process. Relevant data for Rosemary Ltd are:

Fair value of identifiable assets	$1 800 000
Fair value of identifiable liabilities	720 000

Required

A. Determine the price Sage Ltd would pay for goodwill in acquiring Rosemary Ltd if the total consideration transferred in the business combination was $1 500 000, in cash.

B. Prepare entries for Sage Ltd in general journal form to record the acquisition of Rosemary Ltd for $1 000 000 cash.

Exercise 15.11 NON-CURRENT ASSET DERECOGNITION LO 3

During 2016, Truong Ltd disposed of four different non-current assets. On 1 January 2016 the accounts showed the following:

Asset	Cost	Residual value	Useful life	Accumulated depreciation
Motor vehicle No. 3	$ 36 000	$ 6 000	5 years	$ 18 000
Motor vehicle No. 7	52 000	7 000	5 years	34 500
Machine A	180 000	8 000	10 years	111 200
Machine D	280 000	40 000	12 years	260 000

Truong Ltd depreciates its motor vehicles and machines by the straight-line method and records depreciation to the nearest month. Assets were disposed of as follows:

Motor vehicle No. 3, which was not insured, was completely destroyed by fire on 6 January 2016. A towing company was paid $1000 to remove the motor vehicle and to clean up any debris.

Motor vehicle No. 7 was traded in on a new motor vehicle on 3 July 2016. The new motor vehicle had a cash price of $56 000. The old motor vehicle plus cash of $26 000 were given in exchange.

Machine A was sold for $100 000 cash on 1 October 2016.

Machine D was traded in on a new machine with a cash price of $300 000 on 24 December 2016. The old machine plus cash of $290 000 were given in exchange.

Required

Prepare all general journal entries needed to account for the above transactions. Ignore GST.

Exercise 15.12 LEDGER ACCOUNTS FOR NON-CURRENT ASSET ACQUISITION AND DERECOGNITION LO 3

On 1 July 2016, Weiland Pty Ltd owned several farming vehicles that had cost a total of $155 000. Accumulated depreciation on these vehicles to 1 July 2016 amounted to $73 000.

On 30 September 2016, Weiland Pty Ltd acquired a new delivery vehicle and traded in one vehicle that had cost $32 000 and which had accumulated depreciation of $14 400 up to 1 July 2016. The full price of the new vehicle was $29 500 and the trade-in value of the old vehicle was agreed at $18 400. Ignore GST.

On 31 December 2016, an additional delivery vehicle was purchased for $34 000 cash.

Depreciation is calculated at the rate of 20% p.a. on the diminishing balance.

Required

Prepare the following accounts for the year ended 30 June 2017:

1. Delivery Vehicles
2. Accumulated Depreciation – Delivery Vehicles.

Exercise 15.13 NON-CURRENT ASSET REVALUATION MODEL

LO 1, 2, 3

On 30 June 2016, Wong Ltd reported the following information for equipment in its statement of financial position:

Equipment (at cost)	$1 400 000
Accumulated depreciation	520 000
	$ 880 000

Investigation of the property and plant records showed that the equipment consisted of two items: a machine (no. 1) that cost the company $800 000 and had a carrying amount of $420 000 at 30 June 2016, and another machine (no. 2) that originally cost $600 000 and had a carrying amount at 30 June 2016 of $460 000. Both machines are depreciated on a straight-line basis over 10 years.

On 1 January 2017, the directors of Wong Ltd decided to switch the valuation method from the cost model to the revaluation model. Machine no. 1 was revalued to its fair value of $480 000, with an expected future useful life of 6 years, and machine no. 2 was revalued to $450 000, with an expected remaining useful life of 6 years.

On 30 June 2017, the fair value of machine no. 1 was assessed at $450 000, and the future useful life was estimated as 5 years. For machine no. 2, fair value was assessed to be only $300 000, and its future useful life to be 4 years because of a certain degree of commercial obsolescence.

Required

Prepare general journal entries for Wong Ltd for the equipment during the period from 1 July 2016 to 30 June 2017.

Exercise 15.14 GOODWILL AND BUSINESS COMBINATION

LO 8

Zhang Ltd acquired the business of Azzam Ltd for a cash outlay of $5 000 000 on 1 July 2016. The summarised balance sheet of Azzam Ltd on that date was as follows:

AZZAM LTD
Summarised Balance Sheet
As at 1 July 2016

Assets	
Cash at bank	$ 185 000
Accounts receivable	370 000
Inventories	870 000
Land	740 000
Plant and equipment (net)	2 800 000
Total assets	$4 965 000
Liabilities and equity	
Accounts payable	520 000
Bank loan payable	1 350 000
Share capital	2 250 000
Retained earnings	845 000
Total liabilities and equity	$4 965 000

Most of the assets were recorded at fair value except for inventories and land, which were assessed to have fair values of $1 000 000 and $1 100 000 respectively.

Required

A. Determine the amount that Zhang Ltd should record as goodwill or bargain purchase on 1 July 2016.
B. Prepare journal entries in the records of Zhang Ltd to acquire the business of Azzam Ltd on 1 July 2016.
C. Discuss how your answer would differ if Zhang Ltd had paid $3 800 000 cash to acquire the business of Azzam Ltd.

Exercise 15.15 NON-CURRENT ASSET DEPRECIATION AND DERECOGNITION LO 3

The following information was obtained from the accounting records of Crothers Ltd.

	Vehicle A	Vehicle B	Vehicle C
Acquisition date	1 July 2015	1 July 2016	1 July 2017
Cost	$30 800	$28 800	$39 600
Residual value	$2 000	$2 400	$4 400
Useful life (in years)	5	6	8
Depreciation method	Straight-line	Straight-line	Sum-of-years-digits

On 1 July 2016, vehicle A was traded in for vehicle B. The trade-in price for vehicle A was determined to be $21 000.

Required

Prepare the general journal entries for all vehicle transactions from 1 July 2015 to 30 June 2018 in the accounting records of Crothers Ltd.

PROBLEMS

Basic
Moderate
Challenging

Problem 15.1 METHODS OF DERECOGNISING A NON-CURRENT ASSET LO 3

Deduhin Ltd acquired two new machines for cash on 1 January 2014. The cost of machine A was $400 000, and of machine B, $600 000. Each machine was expected to have a useful life of 10 years, and residual values were estimated at $20 000 for machine A and $50 000 for machine B.

Because of technological advances, Deduhin Ltd decided to replace machine A. It traded in machine A on 31 March 2018 for a new machine, C, which cost $420 000. A $200 000 trade-in was allowed for machine A, and the balance of machine C's cost was paid in cash. Machine C was expected to have a useful life of 8 years and a residual value of $20 000.

On 2 July 2018, extensive repairs were carried out on machine B for $66 000 cash. Deduhin Ltd expected these repairs to extend machine B's useful life by 4 years and it revised machine B's estimated residual value to $19 500. Machine B was eventually sold on 1 April 2020 for $300 000 cash.

Deduhin Ltd uses the straight-line depreciation method, recording depreciation to the nearest whole month. The end of the reporting period is 30 June.

Required

A. Prepare general journal entries to record the above transactions and depreciation journal entries required at the end of each reporting period up to 30 June 2020.
B. Prepare the following ledger accounts for the period 1 January 2014 to 1 July 2020:
   1. Machinery
   2. Accumulated Depreciation – Machinery.

Problem 15.2 METHODS OF DERECOGNISING A NON-CURRENT ASSET **LO 3**

On 2 January 2015, Gormly Ltd purchased a machine for $165 000. The machine had a useful life of 5 years and a residual value of $5000. Straight-line depreciation is used. The machine is to be disposed of on 1 July 2019. Ignore GST. Gormly Ltd balances its accounts on 31 December.

Required

A. What entry should be made to record depreciation before the disposal?
B. Prepare journal entries to record the disposal of the machine under each of the following assumptions.
   1. The machine is sold for $80 000 cash.
   2. The machine is sold for $48 500 cash.
   3. The machine and cash of $120 000 are exchanged for a new machine with a cash price of $140 000.
   4. The machine was completely destroyed by fire and cash of $45 000 was received from the insurance company.
   5. The machine and cash of $140 000 are exchanged for a new machine with a cash price of $170 000.

Problem 15.3 REVALUATION, REVERSALS AND DEPRECIATION **LO 1**

Hanxhari Ltd has a policy of revaluing its motor vehicles to fair value. The details at 30 June 2017 relating to Hanxhari Ltd's motor vehicles, which had previously been revalued upwards by $7000, are as follows:

Motor vehicles	$88 000	$66 000
Less: Accumulated depreciation	22 000	

At the date of the revaluation increase (1 July 2016) the vehicles had a zero residual value and a useful life of 4 years. Depreciation has been calculated using the straight-line method. On 31 December 2017, Hanxhari Ltd was informed that the fair value of the vehicles was $50 000. The useful life and residual value have not changed. At 30 June 2018, the carrying amounts are not materially different from fair values.

Required

A. Prepare the necessary general journal entries at 31 December 2017.
B. Calculate depreciation expense at 30 June 2018.
C. How would the motor vehicles be shown in financial statements at 30 June 2018?

Problem 15.4 DERECOGNITION OF ASSETS **LO 3, 5**

Jaensch Ltd reported the following non-current assets at 30 June 2016:

Land		$ 4 800 000
Buildings	$42 000 000	
Less: Accumulated Depreciation – Buildings	19 400 000	22 600 000
Equipment	65 000 000	
Less: Accumulated Depreciation – Equipment	10 000 000	55 000 000
Total non-current assets		$82 400 000

During the year 2016–17, the following transactions occurred:

Oct. 1 Purchased land for $3 500 000.

Nov. 1 Sold equipment that cost $1 200 000 when purchased on 1 July 2013. The equipment was sold for $700 000.

Dec. 1 Sold land purchased on 30 April 2007 for $3 200 000. The land's original cost was $600 000.

Jan. 1 Purchased equipment for $4 000 000 cash.

May 1 Scrapped equipment that had cost $1 000 000 when purchased on 30 June 2008. No residual value was received.

Required

A. Prepare journal entries to record the above transactions. Jaensch Ltd uses straight-line depreciation for buildings and equipment. The buildings are estimated to have a 50-year life and no residual value. The equipment is estimated to have a 10-year useful life and no residual value.
B. Record adjusting entries for depreciation for the year ended 30 June 2017.
C. Prepare the non-current assets section of Jaensch Ltd's statement of financial position as at 30 June 2017.

Problem 15.5 EXCHANGES AND DERECOGNITION LO 3, 5

Khan Ltd entered into the following transactions during the year ended 31 December 2016. Ignore GST.

Jan. 4 Sold for $17 600 a machine that had cost $35 000 on 2 January 2013. The machine's useful life and residual value were 5 years and $5000 respectively. Accumulated depreciation on the machine to 31 December 2015 was $18 000.

Mar. 30 Scrapped a machine that cost $32 000 and had accumulated depreciation of $28 000. Disposal costs of $500 were incurred.

April 1 Exchanged a block of land that had cost $200 000 for machinery. The fair value of the land given up was $220 000.

July 1 Exchanged a machine with a cost of $92 000 and accumulated depreciation to the date of exchange of $62 000 for a new similar machine. A trade-in allowance of $25 000 was received for the old machine and $60 000 was paid in cash.

Sept. 1 Sold for $45 000 cash a machine that cost $105 000 on 31 August 2011. The machine had a useful life of 6 years and a residual value of $9000 when purchased. On 31 December 2015, straight-line depreciation of $16 000 p.a. was recorded. No depreciation has yet been recorded for 2016.

Oct. 31 Exchanged a building with a cost of $275 000 and accumulated depreciation to the date of exchange of $195 000 for a machine. The fair value of the building at this date was $90 000.

Dec. 31 Recorded amortisation of the company's natural gas reserve. The reserve was purchased on 1 January 2016 for $90 000 000. On the date of purchase, the reserve was estimated to contain 40 000 000 units of natural gas and to have a residual value of $10 000 000. One million units of gas were extracted and sold during 2016.

Required

Prepare entries in general journal form to record the above transactions.

Problem 15.6 EXCHANGES OF ASSETS LO 3

The beginning balance in the Machinery control account and Accumulated Depreciation account, and dates in the accounts for various machinery acquisitions and disposals during the year by Liu Ltd are presented below:

Machinery

1/1/16	Balance	93 500			
11/1/16			11/1/16		
25/1/16			25/1/16		
28/4/16			28/4/16		
31/8/16			31/8/16		
			31/12/16	Balance	

Accumulated Depreciation

11/1/16			1/1/16	Balance	69 700
25/1/16			11/1/16		
28/4/16			25/1/16		
31/8/16			28/4/16		
31/12/16	Balance		31/8/16		
			31/12/16		

Liu Ltd records depreciation to the nearest month.

At 1 January 2016, the company held only four items of machinery, and four exchange trans-actions took place during 2016 as indicated below:

Jan. 11	Exchanged an old machine and $13 000 cash for a similar machine (No. P) with a list price of $16 000. The old machine had a cost of $10 000 and accumulated depreciation of $7000 at the time of the exchange.
Jan. 25	An old machine with a cost of $24 000 and accumulated depreciation at 31 December 2015 of $19 200 was traded in on a new machine (No. Q) having a cash price of $36 000. Depreciation on the old machine for the month of January was $800. A trade-in allowance of $3000 was received and the balance was paid in cash.
April 28	A machine with an original cost of $54 000 and accumulated depreciation on 31 December 2015 of $40 000 was exchanged for a new machine (No. R) with a cash price of $75 000. A trade-in allowance of $10 000 was received and the balance paid in cash. Monthly depreciation on the old machine was $500.
Aug. 31	A machine with a cost of $5500 and a carrying amount at the date of the exchange of $1600 was traded in on a new machine (No. S) with a list price of $7000. A trade-in allowance of $2000 was received and $5000 was paid in cash. The old machine has been depreciated at $50 per month during 2016.

At the dates of acquisition, the useful lives and residual values of the new machines were as follows:

Machine no.	Useful life	Residual value
P	4 years	$ 2 000
Q	5 years	6 000
R	10 years	15 000
S	3 years	1 500

Straight-line depreciation is used by the entity.

Required

A. Prepare in Liu Ltd's accounting records the journal entries (in general journal format) for the acquisition, disposal and depreciation charges for the period 1 January to 31 December 2016.
B. Prepare the Accumulated Depreciation account for the period 1 January 2016 to 31 December 2016.
C. Provide reasons, by referring to appropriate accounting standards, for an entity adopting the straight-line method for depreciating its machinery.

Problem 15.7 METHODS OF DERECOGNISING A NON-CURRENT ASSET

LO 1, 3

On 1 January 2014, Martini Ltd bought a machine for $109 000 cash; its useful life was 12 years and its residual value was $13 000. It was decided to depreciate the machine by the straight-line method. On 30 September 2016, the machine was traded in to Lowe Ltd for a new model, the total cost being $80 000. Lowe Ltd allowed $60 000 for the old machine. It was decided to depreciate the new machine at the rate of 10% p.a. by the diminishing-balance method. Residual value of the new machine was $7000.

On 1 July 2017, Martini Ltd decided to adopt the revaluation model and revalue its machine upwards to reflect fair values. This represented a 15% increase in the carrying amount of the machine. The diminishing-balance method of depreciation was continued at the same rate. The accounting period ended on 30 June each year. At 30 June 2018, the carrying amount of the machine was approximately equal to fair value.

Required

A. Prepare relevant ledger accounts to record the above transactions up to 30 June 2018. Ignore GST.
B. Show how the asset would appear in the financial statements of Martini Ltd as at 30 June 2015, 30 June 2017 and 30 June 2018.
C. Show the Machinery account and Accumulated Depreciation – Machinery account if the revaluation on 1 July 2017 had been downwards instead of upwards.

Problem 15.8 CORRECTING ERRORS

LO 3

The following errors were discovered during the current year.

1. A machine with a cost of $33 500 and accumulated depreciation to the date of sale of $24 000 was sold for $9000. The sale was recorded by a debit to Cash at Bank and a credit to Machinery for $9000.
2. Depreciation of machinery, $3240, was incorrectly credited to Accumulated Depreciation – Buildings.
3. Delivery equipment, purchased on 1 July for $18 620, was debited to the Purchases account. The equipment has a useful life of 4 years and an estimated residual value of $900. The straight-line depreciation method is used for delivery equipment.
4. Land taxes of $9320 were paid and debited to Land Tax Expense. Of this, $4200 was back taxes from previous years on land purchased during the current year.
5. A machine with a cost of $42 000 and accumulated depreciation to the date of exchange of $16 000 was exchanged on 23 December for a new machine with a cash price of $52 000. A trade-in allowance of $20 000 was allowed on the old machine. The following entry was made:

Machinery	58 000	
Accumulated Depreciation – Machinery	16 000	
Machinery		42 000
Cash at Bank		32 000

6. The cost of installing security lighting, $8000, was charged to Maintenance Expense on 4 January. The lights have a useful life of 8 years and no residual value. Assume straight-line depreciation.

Required

Prepare general journal entries to correct the errors, assuming the accounting records have not been closed for the current year ending 31 December.

Problem 15.9 REVALUATION AND DISPOSAL

LO 1, 3

Below are extracts from the financial reports of Wollowiec Traders Ltd for the years ended 30 June 2016 and 30 June 2017.

WOLLOWIEC TRADERS LTD
Statement of Financial Position (extract)
as at 30 June 2016

NON-CURRENT ASSETS			
Land		$720 000	
Building	$450 000		
Less: Accumulated depreciation	120 000	330 000	
TOTAL NON-CURRENT ASSETS			$1 050 000
EQUITY			
Revaluation surplus		180 000	
Capital at 1 July 2015	140 000		
Add: Profit for year	37 000		
Capital at 30 June 2016		177 000	
TOTAL EQUITY			$ 357 000

WOLLOWIEC TRADERS LTD
Statement of Financial Position (extract)
as at 30 June 2017

NON-CURRENT ASSETS			
Land		$630 000	
Building		280 000	
TOTAL NON-CURRENT ASSETS			$910 000
EQUITY			
Revaluation surplus		90 000	
Capital at 1 July 2016	$177 000		
Add: Profit for year	20 000		
Capital at 30 June 2017		197 000	
TOTAL EQUITY			$287 000

WOLLOWIEC TRADERS LTD
Income Statement (extract)
for the year ended 30 June 2017

EXPENSES	
Supplies expense	$ 3 000
Wages expense	36 540
Depreciation expense – building	30 000
Bad debts expense	8 200
Insurance expense	15 160
Expense on revaluation of building	20 000
Total expenses	$112 900

Additional information

(a) The revaluation surplus at 30 June 2016 was raised entirely as the result of a previous revaluation increase in relation to the land.

(b) No land or buildings were acquired or disposed of during the year ended 30 June 2017.

(c) A revaluation of the land and buildings was carried out on 30 June 2017 after all adjusting entries had been entered and posted. The revaluation adjustment was entered into the accounts on 30 June 2017, and the statement of financial position at that date reflects the fair values in accordance with the revaluation.

(d) After the revaluation, the building was reassessed to have a residual value of $38 000 and a remaining useful life of 15 years. The building is to be depreciated using the straight-line method of depreciation.

(e) The land and buildings were sold on 31 December 2017. A lump sum of $850 000 was received. The proceeds were allocated to the land and buildings at $600 000 and $250 000 respectively. Ignore GST.

Required

A. Calculate the balance of the Accumulated Depreciation – Building account immediately before the revaluation on 30 June 2017.

B. Prepare the general journal entries to record:

  1. the revaluation of the building on 30 June 2017
  2. the revaluation of the land on 30 June 2017
  3. the disposal of the land on 31 December 2017
  4. the disposal of the building on 31 December 2017.

Problem 15.10 REVALUATION, DEPRECIATION, DISPOSAL **LO 1, 3**

On 1 January 2014, Nicolaidis Ltd purchased two identical new machines at a total cost of $700 000 plus GST. It was estimated that the machines would have a useful life of 10 years and a residual value of $50 000 each. Nicolaidis Ltd uses the straight-line method of depreciation for all of its equipment. The company's end of reporting period is 31 December.

Required

A. Record the purchase of the machines on 1 January 2014.

B. Record the depreciation expense on the machines for 2019.

C. Assume that early in 2020 the company revalued the machines upwards by $80 000 each and assessed that the machines would last 6 more years instead of 4 but that the residual value would be $80 000. Record all journal entries for the machines in 2020.

D. Make the necessary entries to record the sale of one of the machines on 31 December 2020. The machine was sold for $200 000 plus GST. (Assume that the two machines had the same carrying amount, which equalled their fair values at this date.)

E. How much depreciation expense would be recorded on the second machine during 2025 if it were still being used and if its residual value were still $50 000? Why?

Problem 15.11 INTANGIBLES AND MINERAL RESOURCES **LO 5, 7**

The following transactions and events affected the accounts of Heritage Ltd for the current year (ignore GST).

1. On 3 January of the current year, Heritage Ltd paid $110 000 in legal fees for the successful defence of a patent infringement suit.

2. A patent with a useful life of 10 years was purchased for cash of $900 000 on 6 January last year.

3. On 31 January of the current year, Heritage Ltd purchased a copper mine for $50 000 000. Of the total purchase price, $36 000 000 was assigned to the copper mine and the remaining amount was assigned to mining machinery. The mine has a residual value of $6 000 000 and contains an estimated 30 000 000 tonnes of copper ore. The mining machinery is expected to be useful for the entire life of the mine and will be abandoned when the copper deposits are depleted. During the current year, 5 000 000 tonnes of copper ore were mined.

4. On 4 February, a valuable copyright held by the company and internally generated was valued independently at $160 000 — $70 000 of this had been previously included in the asset ‘Development Costs’. It is expected that the copyright has a useful life of 6 years.

Required

A. Prepare general journal entries to record the events occurring in the current year.
B. Prepare general journal entries to record amortisation and depreciation for the current year. Record to the nearest whole month.

Problem 15.12 GOODWILL LO 8

Adam Hamilton, who recently won a major prize in a lottery, left his coaching job to invest in a business of his own. He found what he believed was an ideal business for his background, Glenside Gym, which had been earning an average profit of $70 000 per year over the last 4 years.

Adam has a copy of Glenside’s current balance sheet, which discloses the following:

GLENSIDE GYM
Balance Sheet

CURRENT ASSETS			
Cash at bank		$ 20 000	
Inventory		90 000	$110 000
NON-CURRENT ASSETS			
Land		50 000	
Building	$170 000		
Less: Accumulated depreciation	46 000	124 000	
Equipment	136 000		
Less: Accumulated depreciation	42 000	94 000	268 000
TOTAL ASSETS			$378 000
LIABILITIES			
Accounts payable			$ 20 000
Mortgage payable			100 000
			120 000
EQUITY			
Carl Ingford, Capital			258 000
TOTAL LIABILITIES AND EQUITY			$378 000

Adam Hamilton and Channelle Eberhart (the owner of Glenside Gym) agree that the carrying amount of assets and liabilities are equal to their fair values with the exception of land, which has a fair value of $80 000, and inventory, which has a fair value of $85 000. Adam proposes to purchase the assets (except cash) and to assume the liabilities of Glenside Gym.

Required

A. Determine the fair value of the identifiable assets and liabilities of Glenside Gym.
B. Assuming that Adam is prepared to pay $310 000 cash for Glenside Gym, determine the goodwill figure. Provide reasons Adam would be prepared to pay this amount.
C. Prepare general journal entries to acquire the business of Glenside Gym.

Problem 15.13 INTANGIBLES LO 7

Bittoto Ltd has four different intangible assets at the end of 2016. Facts concerning each are as follows.

1. ***Franchise.*** On 2 January 2016, Bittoto Ltd purchased a franchise to distribute a new product for a 10-year period with no right of renewal. Cost of the franchise was $860 000.
2. ***Copyright.*** On 3 April 2016, the company purchased a copyright for $150 000. The remaining legal life of the copyright was 12 years, and it is expected to have a useful life of 8 years to Bittoto Ltd with no residual value.
3. ***Goodwill.*** Bittoto Ltd began operations on 2 January 2012 by purchasing another company for a total cash payment of $640 000. Included in the purchase price was a payment of $120 000 for

goodwill. The managing director of Bittoto Ltd believes that 'the goodwill is such an important non-current asset of the company that it should last for 100 years'.

4. ***Patent.*** Bittoto Ltd purchased a patent on 1 July 2016 from Chai Ltd for $86 000. The patent had been registered initially on 1 January 2012 and is expected to be useful to Bittoto Ltd for another 10 years.

Required

A. Prepare journal entries to record the acquisition of intangible assets during 2016.
B. For each intangible asset, prepare journal entries that are necessary at the end of the annual accounting period on 31 December 2016.

Problem 15.14 OVERHAULS AND DISPOSALS LO 3

Coomans Ltd, which started operations on 1 October 2013, prepared the following account balances as at 30 June 2016:

Machinery (at cost)	$ 310 000
Accumulated Depreciation – Machinery	170 500
Vehicles (at cost; purchased 20 February 2014)	160 000
Accumulated Depreciation – Vehicles	59 200

Details of machines owned at 30 June 2016 were:

Machine	Purchase date	Cost	Useful life	Residual value
1	2 October 2013	$ 80 000	4 years	$8 000
2	27 December 2013	130 000	5 years	5 000
3	29 July 2014	100 000	4 years	4 000

Additional information

(a) Coomans Ltd calculates depreciation to the nearest month and balances its accounts at month-end. Recorded amounts are rounded to the nearest dollar, and end of the reporting period is 30 June.

(b) The company uses straight-line depreciation for all depreciable assets except vehicles, which are depreciated using the diminishing-balance method at a rate of 30% p.a.

(c) The Vehicles account balance reflects the total paid for four identical delivery vehicles, each of which cost $40 000.

The following transactions occurred from 1 July 2016 onwards:

2016

Aug.	3	Purchased a new machine (Machine 4) for a cash price of $115 000. Installation costs of $5000 were also paid. The company estimated the useful life and residual value at 5 years and $10 000 respectively.
Nov.	15	Paid vehicle repairs of $1200.
Dec.	30	Exchanged one of the vehicles for items of fixtures that had a fair value of $22 000 at the date of exchange. The fair value of the vehicle at the date of exchange was $18 000. The fixtures originally cost $50 000 and had been depreciated by $31 000 to the date of exchange in the

previous owner's accounting records. Coomans Ltd estimated the fixtures' useful life and residual value at 5 years and $2000 respectively.

2017	
March 5	Paid $12 000 to overhaul Machine 1, after which Machine 1's useful life was estimated at 3 remaining years and its residual value was revised to $4000.
June 30	Recorded depreciation expense.
Sept. 20	Traded in Machine 3 for a new machine (Machine 5). A trade-in allowance of $20 000 was received for Machine 3 and $110 000 was paid in cash. The company estimated Machine 5's useful life and residual value at 6 years and $5000 respectively.

Required

Prepare journal entries in general journal form to record the above transactions.

Problem 15.15 BUSINESS COMBINATION, GOODWILL, REVALUATION, IMPAIRMENT

LO 1, 2, 7, 8

On 1 July 2016, Frewville Ltd acquired the assets and liabilities of Glenunga Ltd. The assets and liabilities of Glenunga Ltd consisted of:

	Carrying amount	Fair value
Plant A (cost $840 000)	$620 000	$600 000
Plant B (cost $680 000)	362 000	350 000
Furniture (cost $160 000)	120 000	100 000
Land	200 000	260 000
Liabilities	(300 000)	(300 000)

In exchange for the business of Glenunga Ltd, Frewville Ltd provided the following to Glenunga Ltd:

- 400 000 shares in Frewville Ltd, these having a fair value of $2.00 per share
- cash of $360 000.

The acquisition went ahead as planned. The plant acquired was considered by Frewville Ltd to have a further 10-year life with benefits being received evenly over that period; the furniture had an expected life of 5 years.

During the first year after the acquisition, the management of Frewville Ltd decided to measure, at 30 June 2017, the plant at fair value (both plant assets being in the same class) and the furniture at cost.

At 30 June 2017, Frewville Ltd assessed the fair values of its assets.

- Plant A was valued at $552 000, with an expected remaining useful life of 8 years.
- Plant B was valued at $320 000, with an expected remaining useful life of 8 years.

At 30 June 2017, the furniture's recoverable amount was assessed to be $70 000, with an expected useful life of 4 years.

Required

Prepare the journal entries in the records of Frewville Ltd for the year ending 30 June 2017.

DECISION ANALYSIS

Selling price and goodwill

The summarised statements of financial position for two business entities are presented below:

	Framers & Son	Developers & Co.
ASSETS		
Cash at bank	$ 10 000	$ 13 000

Accounts receivable	12 000	19 000
Inventory	15 000	17 000
Property and plant (net)	40 000	60 000
Intangibles	25 000	—
TOTAL ASSETS	102 000	109 000
LIABILITIES		
Current liabilities	11 000	16 000
Non-current liabilities	20 000	25 000
TOTAL LIABILITIES	31 000	41 000
NET ASSETS	$ 71 000	$ 68 000
EQUITY		
A. Teake, Capital	$ 40 000	—
S. Teake, Capital	31 000	—
D. Pitcher, Capital	—	68 000
TOTAL EQUITY	$ 71 000	$ 68 000

Sharp Photographics is considering the possibility of acquiring the businesses of Framers & Son and Developers & Co., and is interested in establishing an appropriate purchase price for making offers to the two entities. An assessment of the fair values of the entities' assets is as follows:

	Fair values	
	Framers & Son	**Developers & Co.**
Receivables	$12 000	$18 000
Inventory	20 000	25 000
Property and plant (net)	60 000	70 000
Intangibles	40 000	15 000

The owners of Framers & Son are prepared to sell their firm at a price of 160% of the carrying amount of the entity's net assets, and the owner of Developers & Co. is prepared to sell at 180% of the carrying amount of the net assets of his business.

The owners of Sharp Photographics examined the earnings records and financial positions of the two entities over a number of years, and offered to pay the price required by Framers & Son, but offered to pay only 120% of the fair value of Developers & Co.'s net assets.

Required

A. Calculate the selling price being asked by each business and the purchase price offered by Sharp Photographics. Should each business sell out to Sharp Photographics?
B. The sale between Sharp Photographics and Framers & Son went ahead at the negotiated price; and the eventual sale price of Developers & Co. was $121 300. How much goodwill (if any) should be recognised by Sharp Photographics? Calculate the total valuations for all assets acquired from both businesses. Explain.

CRITICAL THINKING

Accounting for revaluations

On 1 January 2016, Good Ltd acquired a block of land for $100 000 cash, and on the same day Better Ltd purchased the adjacent block, which was virtually identical to the block purchased by Good Ltd, also for $100 000 cash. Both companies intended to construct industrial warehouses on these properties. For the next 2 years, the property market went through a boom period and, by coincidence, on 30 June 2018, both companies obtained independent valuations of $180 000 for their blocks of land.

Good Ltd has decided to adopt the revaluation model for land in the accounts on the last day of the year ended 30 June 2018 by following the requirements of IAS 16/AASB 116. Better Ltd decided to use the cost model.

On 30 April 2019, each company sold its block of land for $200 000 cash.

Required

A. In relation to the land, how much profit would each company report for the years ended 30 June 2018 and 30 June 2019?
B. Give reasons for the discrepancy in profit figures between the two companies. Does the existence of the discrepancy make sense? What message is being conveyed to users about the performance of both companies? Discuss fully. How can the discrepancy be avoided?
C. What profit would Good Ltd have made for the year ended 30 June 2019 if the revaluation of land had occurred on 29 April 2019, instead of on 30 June 2018? Compare this with the profit made by Better Ltd in the same year, and explain whether you regard the differences as satisfactory reporting.

COMMUNICATION AND LEADERSHIP

Research and development costs

GeneTech Ltd is a biological research company that is developing gene technology in the hope of finding a vaccine for skin cancer. During the last financial year, GeneTech Ltd spent $1.2 million on research. The scientists involved in the project believe they may be on the right track with the research, although many other companies are claiming the same thing and as yet no one has patented a vaccine.

Required

In groups of three or four, discuss the options under IAS 38/AASB 138 ***Intangible Assets*** for the accounting treatment of the $1.2 million. What impact will each of these options have on the company’s profit? Prepare a one-page letter to the managing director of GeneTech Ltd advising her of your preferred treatment for the research and development costs.

FINANCIAL ANALYSIS

Refer to the consolidated financial statements and their notes in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. Were any items of property, plant and equipment revalued by the entity during the current financial year? during previous years? If so, give details.
2. Were any items of property, plant and equipment derecognised during the year? If so, how has the entity disclosed any gains or losses made on derecognition of such assets? Provide details of any financial amounts involved.
3. From the latest statement of financial position (balance sheet), provide details of the types and amounts of assets regarded by JB Hi-Fi Limited as ‘intangible’. What accounting treatment is adopted in accounting for the acquisition of goodwill?
4. Have there been any instances where the group’s non-current assets were revalued upwards/downwards? If so, provide details.

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[1] In this book, the tax effect of revaluations is ignored on the grounds of simplicity. Under IAS 16/AASB 116, the tax effect of revaluations must be considered, thus creating a deferred tax liability associated with the change in the carrying amount of the asset revalued, as per IAS 12/AASB 112 ***Income Taxes***. More complete coverage of the tax effect of revaluation is found in advanced accounting texts.

CHAPTER 16

Liabilities

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- how to account for credit purchases (pp. 244–55)
- how and why adjusting entries are made (pp. 132–46)
- the nature and use of bills of exchange and promissory notes (pp. 538–43).

Learning Objectives

After studying this chapter you should be able to:

1 define liabilities (pp. 678–9)
2 describe when liabilities are recognised (pp. 679–80)
3 explain the nature of provisions and contingent liabilities (pp. 680–2)
4 discuss why and how liabilities are classified, and distinguish between current and non-current liabilities (p. 683)
5 explain the nature of the major categories of current liabilities, and how to account for them (pp. 683–92)
6 explain the nature of the major categories of non-current liabilities and how to account for them (pp. 692–9)
7 analyse liabilities for decision-making purposes (pp. 699–703).

The business of going broke

As early as 118 BC, the people of Rome approached magistrate Lucius Verginius Rufus to take control of the assets of bancus ruptus citizens. Fast forward to 2002, the collapse of Enron and WorldCom forces the introduction of the Sarbanes-Oxley Act. Then, in 2008, the largest US insolvency plays out: the collapse of Lehman Brothers reporting a $4 billion trading loss. In Australia in the year to June 2012, ASIC reported 15 416 cases of corporate insolvencies.

Despite changes in governance and regulation, insolvency continues to grow in Australia to levels not seen for more than 10 years. It is not surprising the business of going broke has been one of the most researched topics over seven decades.

Australian Insolvency Statistics (AIS), maintained by ASIC, provide useful insights into corporate failure. Series three of these statistics covers an eight-year period, from July 2004 to June 2012. Every year, on average, companies operating in the construction industry will make up approximately 22 per cent of corporate failures; business and personal services making up 23 per cent; with retail approximately 10 per cent. Clients operating in these and allied industries need extra attention.

Generally, an organisation is made up of a matrix of resources both tangible, such as cash, and intangible, such as social capital and policies, including strategic and operational plans and other policies such as financial management. These resources interact in a marketplace and success or failure will be determined on how well these resources and policies are applied in this competitive setting.

This is clearly demonstrated by the causes of failure reported in the AIS. The table looks like this:

1. Poor strategic management of the business
2. Inadequate cash flow or high cash use
3. Trading losses
4. Poor financial control and lack of records.

A recent trend has been the increase in poor economic conditions as a reason for corporate failure, sneaking into the top five in the three years to 2012.

In their work and subsequent document entitled ***The Business Failure Process: An Integrative Model of the Literature***, Nathalie Crutzen and Didier Van Caille identified four key phases of business failure:

Phase 1: A deficiency in the resource base — no cash, no capital either financial or social and core competencies reliant on the individuals involved in the business

Phase 2: Appearance of failure such as no hold in the market place, low or no profitability

Phase 3: Critical warning signs

Phase 4: Insolvency.

Real focus has centred on the warning signs for insolvency and for good reason, given the risk taken by directors if they trade while insolvent. These warning signs overlap with some of the causes of corporate failure identified in the AIS. These signs include difficulty in realising stock or collecting debtors or cash flow difficulties. Other warning signs include not paying taxes on time, fully drawn funding facilities or defaulting on loans or dishonoured cheques and trading losses.

Waiting around and ticking off how many warning signs you demonstrate is not a great idea. Some of the warning signs, if you can get to them early enough, could leave you with some remedies to avoid collapse but some of the warning signs leave you with no option but to cease operating.

Source: Excerpts from Senatore, E 2013, ‘The business of growing broke’, ***Charter***, May, p. 32.

Chapter preview

One of the most important decisions owners and managers have to make is how to finance their business operations. Such decisions are also important to external users such as shareholders and fixed interest investors. Many of these decisions are reflected in the statement of financial position/balance sheet as liabilities. Liabilities are important because they represent past sources of cash and other assets, but they also represent obligations to give up cash and other resources at some time in the future. As highlighted in the scene setter, a failure to manage and control debt coupled with poor strategic management can lead to dire financial consequences for the entity. Liabilities are a necessary part of the financing of a business entity, and the appropriate mix and level of different liabilities is essential to the continuing success of any business.

Regardless of the nature and size of the operations of any business or government entity, they all will incur liabilities. Liabilities arise from operating, investing and financing activities. As part of operating activities, the entity will incur liabilities for the purchase of goods and services on credit, for the wages of employees, for bills of exchange, for normal expenses, and for such items as warranties on products sold. Investment decisions regarding the purchase of property, plant and equipment will also give rise to obligations to outlay cash and resources in the future. Financing activities, such as borrowing over long periods of time using, for example, mortgage loans and debentures, also create liabilities. Finally, liabilities can arise from profit distributions such as the declaration of dividends to shareholders under certain conditions.

Many students will already be familiar with financing their lifestyles via the use of liabilities. The most common types of liabilities for university students are debts related to their study, possibly in the form of a loan from the government or from their parents. Some students may have bought a computer or car using some form of credit provider such as a bank or credit union. Others may have borrowed money to finance the purchase of a unit or house. It is also common for many students to incur liabilities for such things as mobile phones and household items.

Recognising, valuing, recording, reporting and analysing liabilities are discussed in this chapter.

16.1 Liabilities defined

LO 1 **Define liabilities.**

As previously noted, **liabilities** are defined in accounting standards and in the ***Conceptual Framework for Financial Reporting (the Conceptual Framework)*** as ‘a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits'. From the definition, it is clear that there are three essential characteristics of a liability:

- the entity must have a ***present obligation*** to an external party
- the obligation must have resulted from ***past events***
- the entity must have a future ***outflow of resources embodying economic benefits***, which represents a sacrifice of economic resources.

Present obligation

A primary characteristic of a liability is that the entity is presently obliged to act in a certain manner in the future, such as outlaying cash or other resources to a party external to the entity. Although the external party normally would be identified, e.g. a supplier for goods purchased, a financial institution for a loan, or an employee for wages, it is not essential for the identity of the external party to be known at the present point in time for a liability to exist. A liability can exist for the warranty on goods sold, such as computers or mobile phones; but because it is not known at the time of sale which goods will be faulty during their warranty period, who will make a warranty claim cannot be known at the time the liability is recognised.

Liabilities generally arise from contractual arrangements voluntarily entered into by the entity. Obligations to supply goods paid for in advance, for borrowings, for services provided by employees and other award benefits owing to them, and for plant and equipment purchased are all examples of transactions arising from contractual property arrangements. Most obligations are evidenced by formal documentation such as contracts or other documents which establish a present obligation. An entity can also have obligations imposed on it by external factors such as when it becomes liable for damages under a lawsuit or for employee or customer compensation claims, or when government taxes and charges are assessed or imposed.

As well as a **legal obligation** that arises from contracts, legislation or other operations of the law, such as those just discussed, a constructive obligation may give rise to a liability. A **constructive obligation** is when the past practices of an entity, its published policies or a specific current statement indicate that it will accept responsibility for certain actions, and so it becomes reasonable for others to assume the entity will fulfil those responsibilities. For example, a department store may have had a practice of exchanging damaged returned goods for new replacements, even when the customer had no proof of purchase and could not demonstrate that the goods were originally purchased from that store. If it could be shown that this practice had taken place over an extended period of time and that customers could reasonably assume that the exchange of damaged goods for new goods would continue without proof of purchase, then the store could have a present constructive obligation to replace the damaged goods for anyone who returned them to the store, regardless of the place of purchase. The store should therefore make a provision for the expected future cost of such returns.

Past event

For a present obligation to be a liability, it must have arisen from past events, such as the purchase of goods and services, or entering into a loan arrangement. An intention to borrow money in the future does not constitute a liability since no event giving rise to an obligation has occurred at the current point in time.

Future outflow of resources embodying economic benefits

A liability must involve an outflow of economic resources in the future. These future outflows of economic resources do not need to be in cash, and can take the form of transfer of other assets, the provision of services, replacement of that obligation with another, or conversion to equity. Discharge of an obligation can be required on demand (such as a bank overdraft), on a specific future date, or on the happening of some future event. Usually, a high degree of certainty is associated with liabilities — suppliers expect to be paid within 30 days of the invoice date, and a financial institution expects its loans to be repaid on specific dates over a period of time.

LEARNING CHECK

☐ Liabilities have three essential characteristics:
  – the entity has a present obligation to an external party
  – there is a past event that gave rise to the obligation
  – settlement of the obligation requires an outflow of resources embodying economic benefits.

16.2 Recognition of liabilities

LO 2 **Describe when liabilities are recognised.**

Having established that a liability exists, it is then necessary to decide whether it is appropriate at the time to recognise the liability in the accounts and what the dollar amount of the liability is. Recognition of a liability simply means that the liability is recorded in the formal accounts of the entity, and disclosed in financial statements. The preceding section described the characteristics which must be present for a liability to exist, but it did not cover conditions to be met in deciding whether and when to recognise a liability and how to measure it.

Why recognition is important

If liabilities are not recognised and expressed in dollar terms as soon as possible, the liabilities of the entity will be understated, and the entity’s equity will be overstated, as equity equals assets minus liabilities. Also, many expenses incurred and assets acquired, which result from transactions giving rise to liabilities, will be understated if such liabilities are not recognised. The relationship between expenses and liabilities is evident when end-of-period adjustments are made to the unadjusted accounts in the general ledger. An example is the recording of accrued wages, resulting in an increase in wages expense and an increase in wages payable to record the liability for amounts owing to employees. Coverage of end-of-period adjustments such as these was provided in chapter 4.

Criteria for recognition

Accounting standards and the ***Conceptual Framework*** specify two criteria which must be met before liabilities are recognised. Liabilities should be recognised when, and only when:

- it is ***probable*** that an outflow of resources embodying economic benefits will result from the settlement of a present obligation
- the ***amount*** at which the settlement will take place can be ***measured reliably***.

Given the nature of most liabilities, which involve an agreement with an external party, these criteria are usually easy to verify.

In relation to the first criterion, ‘probable’ in this context simply means that the outflow of economic benefits is more likely than less likely to occur, i.e. higher than a 50% probability as required by IAS 37/AASB 137 ***Provisions, Contingent Liabilities and Contingent Assets***. The outflow of resources from the entity can be paid:

- ***on demand*** — the amount of the liability is presently due and the payment is not subject to any conditions, e.g. a debt to a supplier for goods received
- ***on a specified date*** — only the passage of time is required to make the liability payable, e.g. repayment of a loan at set dates in the future
- ***on the occurrence of a specified event*** — requires that an event occurs before the liability becomes payable, e.g. a warranty claim on a faulty product previously sold.

The second criterion for recognition is that the outflow of economic benefits can be measured reliably. The amount recorded as a liability is the monetary measure of the obligation to sacrifice economic benefits.

Reliable measurement requires adequate evidence to be available to support the dollar measurement assigned to the future outflow of economic benefits. Generally, the condition of reliable measurement is satisfied by the existence of source documents such as purchase orders, supplier invoices, wage agreements, and loan contracts resulting from transactions which give rise to the liabilities. In some circumstances, measurement of the liability requires estimates, and even discounting of future cash outflows back to present value.

LEARNING CHECK

☐ Liabilities are recorded in the financial statements when:
- there is an outflow of resources embodying future economic benefits to settle the obligations
- the liability has a cost or value that can be measured reliably.

16.3 Provisions and contingent liabilities

LO 3 **Explain the nature of provisions and contingent liabilities.**

Nature of provisions

Provisions are defined in IAS 37/AASB 137 as liabilities of uncertain timing or amount. Although the standard notes that the term ‘provision’ is used elsewhere in accounting and auditing standards to refer to items such as accumulated depreciation and the allowance for doubtful debts, these items are not covered by IAS 37/AASB 137. Such items are adjustments to the carrying amount of assets and therefore do not meet the definition of a liability. Because provisions are defined as liabilities of uncertain timing or amount, it seems that items such as accumulated depreciation and allowance for doubtful debts should not be referred to as ‘provisions’, since they do not meet the definition.

A provision exists when an entity is presently obliged to make a future outflow of economic benefits as a result of past events. In other words, a provision is a liability but the ***amount*** or ***timing*** of the outflow of economic benefits is ***uncertain***. IAS 37/AASB 137 argues that the degree of uncertainty of the amount and timing of liabilities such as trade payables and accruals clearly contrasts with that applicable to provisions.

Provisions can arise from a number of situations or events. Examples of provisions include provision for long-service leave (from hiring labour), provision for warranties expense (providing a

warranty on goods sold), provision for personal indemnity claims (accident on business premises), provision for environmental damages (legal action by external entities), and provision for onerous contracts (where future payments under a contract exceed benefits).

With these examples, the need to recognise expenses and their associated liabilities arises from the requirement to record expenses in the year in which it is probable that the consumption or loss of economic benefits occurs and can be reliably measured. The cost arising from warranties given with products sold is a good example of this. Warranty costs (i.e. costs associated with rectifying or replacing faulty products) result in future costs after the product has been sold. Sales revenue can be recorded in one accounting period, but the outflow of resources associated with meeting warranty claims can be incurred in the next or later reporting periods. It is appropriate to record the warranty expense and the warranty liability in the accounting period when the sales are made and the revenue is recognised, as the sale represents an obligating event. IAS 37/AASB 137 defines an **obligating event** as an event that results in an entity having no realistic alternative to settling that obligation. It is probable, from past experience, that a certain percentage of goods sold will be returned for repair or replacement during the warranty period.

As with liabilities, a provision is recognised when an entity has a present obligation (legal or constructive) as a result of a past event that will probably result in an outflow of economic benefits, and a reliable estimate can be made of the amount of the obligation. The measurement of the provision must be the best estimate, at the end of the reporting period, of the cash flows or other consideration required to settle the provision. When a provision is measured using estimated future cash flows, then these must be shown at the present value of those cash flows at the end of the reporting period where the effect of the time value of money is material. When providing for warranties, the amount of future costs related to the reporting period's sales can be estimated from past experience and is considered reliable enough to make a provision for warranty.

Items excluded from provisions — future costs

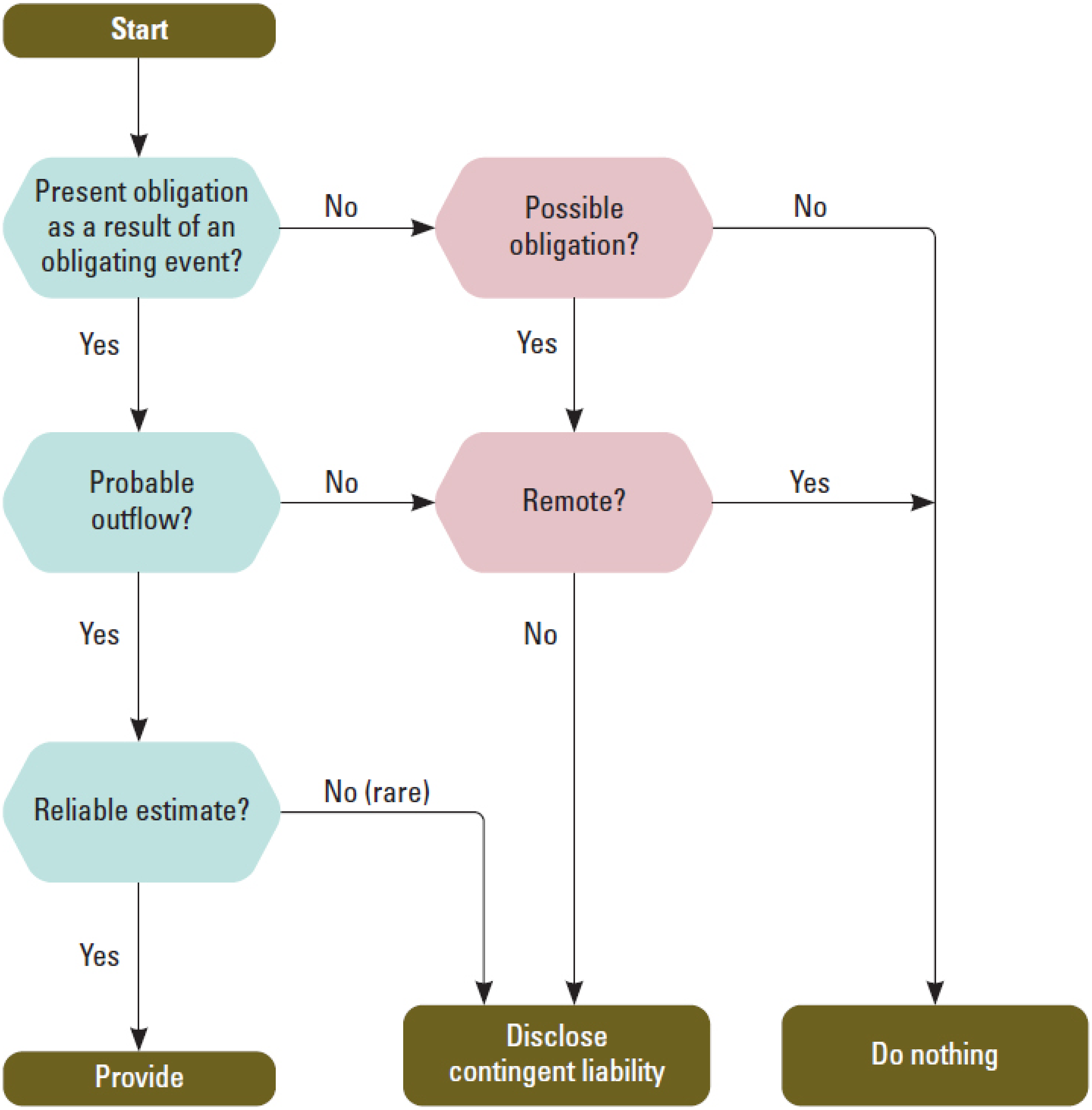
Given that a provision must satisfy the definition of a liability, items which do not satisfy the definition should not be labelled as a 'provision' in the financial statements. A common practice was for some entities at the end of the reporting period to credit in the accounts a provision for future repairs and maintenance whenever plant and equipment required a major overhaul in the coming financial period. By establishing such a provision, repairs and maintenance expense was debited on the grounds that it recorded the expense in the period that the economic benefits of the plant and equipment were used. However, under the definition of 'provision' given in IAS 37/AASB 137, the provision for future repairs and maintenance on plant and equipment does not satisfy the definition of a liability, as there is no present obligation to an external party at the end of the reporting period.

A further example of a commonly established provision which does not satisfy the definition is in the circumstance where an entity credits a provision for self-insurance against possible natural disasters. Entities have often 'insured themselves', instead of taking out insurance with an external party, by transferring to a provision the cost of the insurance premium that would be paid if such a policy existed. However, such a provision does not satisfy the definition of a liability, as there is no present obligation resulting in an outflow of economic resources in the future.

Contingent liabilities

Further confusion in the financial statements of an entity has occurred because of the treatment of circumstances which, although they exist at the end of the reporting period, depend on uncertain events for their existence or valuation. For example, an entity may be the subject of a legal dispute at the end of the reporting period, which may or may not lead to the entity having to pay significant damages as a result of past events. What should the entity disclose in its financial statements? This example is often described as a contingent liability and is covered by IAS 37/AASB 137. A **contingent liability** is defined in the standard as a possible obligation arising from a past event that will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events that are not wholly within the control of the entity. A liability or provision that does not meet the recognition criteria of probable outflow of resources embodying economic benefits and/or reliable measurement is also defined as a contingent liability. The standard states that contingent liabilities are not to be included in the financial statements but are to be disclosed in the notes to the financial statements, but not if the possibility of an economic outflow is 'remote'. In the case the event is remote, no disclosure is required to be made. Figure 16.1 illustrates the distinction between a provision and a contingent liability.

Figure 16.1 Decision tree from AASB 137, Appendix B, summarising the main recognition and disclosure requirements for provisions and contingent liabilities



It can be argued that information about contingent liabilites is useful to external users of financial statements in assessing the current financial position of an entity. One example of a contingent liability is a lawsuit brought against the entity for breach of environmental laws where, at the end of the reporting period, the probability that future economic resources will flow out of the entity is very high, but the amount cannot be measured reliably until damages are determined by the relevant court. Another example is where an entity has acted as guarantor for another entity's borrowings. Here, at the end of the reporting period, the liability can be reliably measured, but the probability that a future outflow of economic resources will be required is often less than 50%.

Contingent liabilities are characterised by the requirement that a future event does not have to be wholly within the control of the entity before any liability can be recognised and disclosed within the financial statements, e.g. the court determines the amount of damages to be paid by the entity, or the entity whose debt is guaranteed defaults on its loan repayments.

LEARNING CHECK

☐ Provisions are liabilities of uncertain timing or amount.
☐ Accumulated depreciation and allowance for doubtful debts are not provisions but adjustments to the carrying amount of assets.
☐ A contingent liability is a possible liability that will be confirmed by the occurrence or non-occurrence of a future event not wholly within the control of the entity, or a liability which does not satisfy the requirements for recognition.
☐ A contingent liability must be disclosed as a note to the financial statements.

16.4 Classification of liabilities

LO 4 Discuss why and how liabilities are classified, and distinguish between current and non-current liabilities.

Need for classification

The previous discussion has indicated that liabilities originate from a wide variety of transactions and events, and hence the nature of liabilities varies greatly. When liabilities are reported in the statement of financial position/balance sheet, they need to be presented in relevant and comparable categories. This means that they should be classified into appropriate groups so that users of financial statements are able to analyse and interpret the role and significance of liabilities in the short-term and long-term activities of the entity. Decision makers want to be able to assess the entity's capacity to (1) meet its recurring commitments arising as part of the operating cycle, (2) pay interest and (3) repay long-term borrowings.

Basis of classification

Unlike assets, which are classified according to their nature (current and non-current), liquidity and function within the entity, IAS 1/AASB 101 ***Presentation of Financial Statements*** suggests that liabilities are classified according to their amount, nature and timing. Since the nature of liabilities varies considerably, there is a wide choice of classification. The nature of liabilities can relate to the timing of settlement, their liquidity, whether they are secured by assets or guarantees, whether they are unsecured, and their source (trade creditors as opposed to employee benefits). A perusal of company reports, such as the JB Hi-Fi Limited financial statements that can be found on its website, www.jbhifi.com.au, will indicate that companies generally provide a classification of liabilities that attempts to reflect the diverse nature of liabilities.

Categories

In practice, classifying liabilities is based on the timing of the expected outlays of economic resources to discharge the liabilities. This results in a classification of liabilities based on the time that is expected to elapse between the end of the reporting period and the expected date of settlement. Liabilities that are expected to be settled within the entity's normal operating cycle, or are held mainly for the purpose of being traded, or will be settled within 12 months of the end of the reporting period are classified as **current liabilities**. If the entity does not have an unconditional right to defer settlement of a liability for at least 12 months after the end of the reporting period, then that liability is also classified as current (IAS 1/AASB 101). All other liabilities are classified as **non-current liabilities**.

A secondary classification of liabilities is based on the uncertainty of the amount and timing of the future outflows. IAS 1/AASB 101 requires the statement of financial position/balance sheet to show, as a minimum, trade and other payables, provisions, financial liabilities, and liabilities for current and deferred tax. A major difference between these items is the degree of uncertainty surrounding the amount and timing of the future outflows of economic resources.

For reporting to the internal users of an entity, each entity can determine the appropriate categories which suit the needs of those users. The entity may report many different categories, such as accounts payable, bills payable, bank overdraft, wages and salaries payable, loans payable, telephone account payable, GST payable, and provision for warranties.

LEARNING CHECK

- ☐ For reporting purposes, liabilities should be classified according to their amount, timing and nature.
- ☐ A liability is classified as current when it is expected to be settled in the entity's normal operating cycle, it is held mainly for the purpose of being traded, it is due to be settled within 12 months of the end of the reporting period, or the entity does not have an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

16.5 Current liabilities

LO 5 Explain the nature of the major categories of current liabilities, and how to account for them.

Current liabilities are liabilities that are expected to be settled during the entity's normal operating cycle (or within 12 months of the end of the reporting period), are held mainly to be traded, or that the entity does not have an unconditional right to delay settlement of for at least 12 months after the end of the reporting period. They include accounts payable, bills payable, interest-bearing liabilities (e.g. bank overdraft), employee benefits, accrued expenses, and provisions. Accounting for these major types of current liabilities is covered in this section.

Accounts payable (trade creditors)

Accounts payable are amounts owed to creditors for the purchase of inventory, supplies and services as part of the business operating cycle. Because they are not evidenced by a formal debt instrument such as a specifically written contract or raised note, they are often referred to as ***open accounts***. Each time inventory, supplies or services are purchased on credit, the appropriate asset or expense account is debited and the Accounts Payable account is credited. Accounting for accounts payable has been covered in previous chapters, particularly chapter 7. These accounts are also commonly referred to as **trade creditors**.

Bills payable

Bills payable differ from accounts payable in that the liability is evidenced by a bill of exchange or a promissory note. In some industries it is normal practice for the purchaser of inventory to give an accepted bill of exchange or promissory note to the seller at the time of purchase. Bills are often issued when a business borrows money from a bank or other financial institution. Another transaction that results in bills payable is the substitution of a bill for an overdue account payable.

The similarity with bills receivable is obvious. A bill payable can arise by acceptance of a draft bill of exchange or the giving of a promissory note. The same principles regarding maturity value, maturity date, interest and so on, discussed when dealing with bills receivable, apply to bills payable. Accounting for bills payable is illustrated below. Bills payable can be classified into:

(1) 'trade' bills payable (used for the settlement of business transactions)

(2) 'commercial' bills payable (used for obtaining short-term finance from banks and other financial institutions).

Trade bills

Trade bills payable can arise from transactions in the normal course of business, e.g. the conversion of accounts payable to bills payable. For illustration purposes, assume Snow Ltd had previously purchased inventory from C. Blain on credit for $4000 including GST. On 1 August, Blain agreed to accept a 90-day (due date fixed) bill of exchange from Snow Ltd to cover the amount of the account payable together with interest at 10% p.a. The entry in the general journal of Snow Ltd on issue of the bill is:

Aug.	1	Accounts Payable – C. Blain	4 000.00	
		Unexpired Interest	98.63	
		Bills Payable		4 098.63
		(Receipt of bill from C. Blain for account payable)		
		[Interest = $4000 × 0.10 × 90/365]		

The debit to a contra-liability account, Unexpired Interest, represents the interest expense which is not yet incurred, but will be with the passage of time.

On the maturity date, which is 30 October, Snow Ltd is expected to pay the liability existing on the bill. When the bill is paid, the unexpired interest has expired and should therefore be charged to Interest Expense. The entries in general journal form are:

Oct.	30	Bills Payable	4 098.63	
		Cash at Bank		4 098.63
		(Payment of bill)		
	30	Interest Expense	98.63	
		Unexpired Interest		98.63
		(Interest expense on bill)		

Note that, if the end of the financial year falls within the term of the bill, an adjusting entry is necessary at the end of the reporting period to bring to account the interest expense incurred on the bill up to that time.

Commercial bills

Apart from their use as trade bills, a more common use for bills of exchange is to obtain short-term finance. These bills are known as **commercial bills** and, in some cases, are referred to as **accommodation bills**. If bills of exchange are used to obtain finance from a bank or through entities specialising in bill finance, the bills are referred to as ***bank bills*** and ***finance bills*** respectively.

These bills are bought and sold on a bills market, which is similar to a stock exchange. The market in bills requires that they must be for an amount of at least $100 000 and drawn for a maximum period of 180 days. If the financing arrangement is to exceed 180 days, then the bill expiring at the end of 180 days must be ‘rolled over’, i.e. replaced by a new bill.

The arrangements whereby an entity obtains finance from a bank, for example, can vary depending on circumstances. To illustrate, assume that Collectors Ltd wished to obtain $100 000 by means of a 180-day bill of exchange, with the accommodation of the bill provided by an arrangement with Hunters Merchant Bank. Collectors Ltd would draw up a draft bill and present this to the bank for acceptance. Once accepted, Collectors Ltd could sell the accepted bill to another entity for the face value less a discounting fee. The entity discounting the bill feels secure because of the financial backing provided by the Hunters Merchant Bank’s acceptance. On the maturity date, Collectors Ltd would pay the face value of the bill to Hunters Merchant Bank, which in turn would pay the entity which presented the bill to the bank on the due date.

Alternatively, the bank (after its acceptance of the bill) could **discount** the bill and pay Collectors Ltd the face value less the discounting fee (to cover interest). The bank could retain the bill until the due date and receive the face value from Collectors Ltd, or the bank could sell the bill on the bill market. On the due date, Collectors Ltd would pay the bank $100 000, and the bank would honour the bill when presented by the current holder of the bill.

Regardless of the particular financing arrangements, and who the ultimate holder of the bill is at its due date, the bill is a bill payable by Collectors Ltd and, on the due date, Collectors Ltd becomes liable to pay the face value of the bill to Hunters Merchant Bank. Even though the interest rate on the bill is 10% p.a., initial recording of the financing by Collectors Ltd is as follows:

July	1	Cash at Bank	95 068	
		Unexpired Interest	4 932	
		Bills Payable		100 000
		(Arranged finance by a 180-day, $100 000 bill at 10%)		
		[Interest = $100 000 × 0.10 × 180/365]		

The Unexpired Interest account, representing the discount, is deducted as a contra-liability to the current liability as shown below:

CURRENT LIABILITIES		
Accounts payable		$ 46 500
Bills payable	$100 000	
Less: Unexpired interest on bills	4 932	95 068
Accrued expenses		6 700
		$148 268

Instead of using an Unexpired Interest account, some accountants use a Discount on Bills Payable account to record the interest (discount). The discount account is then treated in exactly the same manner as the Unexpired Interest account, i.e. as a contra-liability to the Bills Payable account. Because the unexpired interest on bills payable represents interest deducted in advance, it is transferred to interest expense over the term of the bill.

In our illustration, assume that the maturity date of the bill falls within the same financial year as the issue date. Thus the discount is charged to interest expense when the bill is paid on 28 December by Collectors Ltd and recorded in general journal format as follows:

Dec.	28	Bills Payable	100 000	
		Cash at Bank		100 000
		(Payment of bill to bank)		
		Interest Expense	4 932	
		Unexpired Interest		4 932
		(Interest expense on discounted bill)		

End-of-period adjustments for interest expense

When a bill payable is issued in one accounting period and matures in another, an adjusting entry must be made at the end of the first period to allocate interest expense properly. For example, assume that the $100 000, 180-day, 10% bill of Collectors Ltd in the previous illustration was issued on 1 June rather than on 1 July. An adjusting entry is needed on 30 June to accrue interest expense for 30 days as follows:

June	30	Interest Expense	822	
		Unexpired Interest		822
		(Interest for 30 days on discounted bill: $100 000 × 0.10 × 30/365)		

The entry to record payment of the bill on 28 November is:

Nov.	28	Bills Payable	100 000	
		Cash at Bank		100 000
		(Payment of bill to bank)		
		Interest Expense	4 110	
		Unexpired Interest		4 110
		(Interest expense on bill: $100 000 × 0.10 × 150/365)		

In either case, the total amount of interest expense, $4932, is the same, with $822 allocated to the period in which the bill was issued and $4110 allocated to the following period.

Employee benefits

One of the most important recurring expenses for business entities is compensating employees for services rendered under employment contracts. The combined costs of labour and fringe benefits, referred to collectively as employee benefits, are a major business expense. For each of the expenses generated, corresponding liabilities are generated. The entity owes employees wages and salaries earned until paid, and owes various external parties for deductions withheld from employees, e.g. income tax instalments. Other liabilities arise from such benefits as sick leave, long-service leave, workers compensation premiums, and superannuation. This section of the chapter covers aspects of both expenses and liabilities associated with employee benefits from the employer’s point of view.

Employee benefits defined

Accounting standard IAS 19/AASB 119 ***Employee Benefits*** defines employee benefits, sets out criteria for the recognition and measurement of expenses and liabilities that arise in relation to employee benefits, and prescribes disclosure requirements for employee benefits.

Employee benefits are defined as all forms of consideration given by an entity in exchange for services rendered by employees and include wages and salaries (including all monetary and non-monetary fringe benefits), annual leave, sick leave, long-service leave, maternity leave, superannuation, and post-employment benefits. An employer is an entity that consumes the services of employees in exchange for providing employee benefits.

The principles for recognition of expenses and liabilities that arise out of employee benefits are based on the definitions of these elements of financial statements that are given in the standards and are consistent with those contained in the ***Conceptual Framework***. For example, if an employee benefit meets the definition of an expense, then the item is recognised as such in the accounts. If the benefit meets the definition of a liability, then a liability is recorded and disclosed in the financial statements.

Two measurement methods are required for liabilities arising from employee benefits. Wages and salaries, annual leave and sick leave, which are expected to be settled within 12 months of the end of the reporting period, and deductions from wages expected to be made within the next 12 months of the end of the reporting period are to be recorded at their nominal amounts, i.e. undiscounted. Any long-term employee benefits are to be measured at **present value** if material, which is defined as the future cash flows to be paid to these employees discounted back to the present time using a suitable discount rate. The discount rate required to be used is the market yield on high-quality corporate bonds or national government bonds at the end of the reporting period. (Discussion of measurement techniques to determine present value is provided in the appendix at the back of this book.) It is important to note that GST is not payable on employee benefits.

Gross pay

The first step in calculating the amount paid to a particular employee during a given period is determining his or her **gross pay** (also called **gross earnings**) in the form of wages or salary. The term **wages** is used for remuneration paid to an employee on the basis of an hourly rate and hence varies in amount depending on the hours worked and hourly rate of pay applied. **Salary** refers to remuneration paid on a weekly, fortnightly or monthly basis and is determined using a fixed annual salary as the base. Both wages and salaries may be supplemented by bonuses, loadings, commissions and fringe benefits.

Gross pay depends on a number of considerations in addition to the rate paid per hour and the hours worked. Often, governments prescribe minimum rates of pay and standard hours of work, together with a number of other allowances relating to working conditions and pay rates. Allowances may be made for such items as overtime hours worked, travel, clothing, danger money for hazardous occupations, and dirt money in an occupation such as mining. These allowances are added to and form part of an employee's gross pay.

Deductions from gross pay

The net pay or take-home pay which is paid to an employee will be less than gross pay because of certain deductions that must be made. These deductions arise out of a statutory requirement to deduct income tax instalments, and out of agreements entered into whereby the employee authorises the employer to deduct certain amounts to cover items such as superannuation contributions, life assurance premiums and medical insurance. The **net pay** will therefore equal gross pay less deductions.

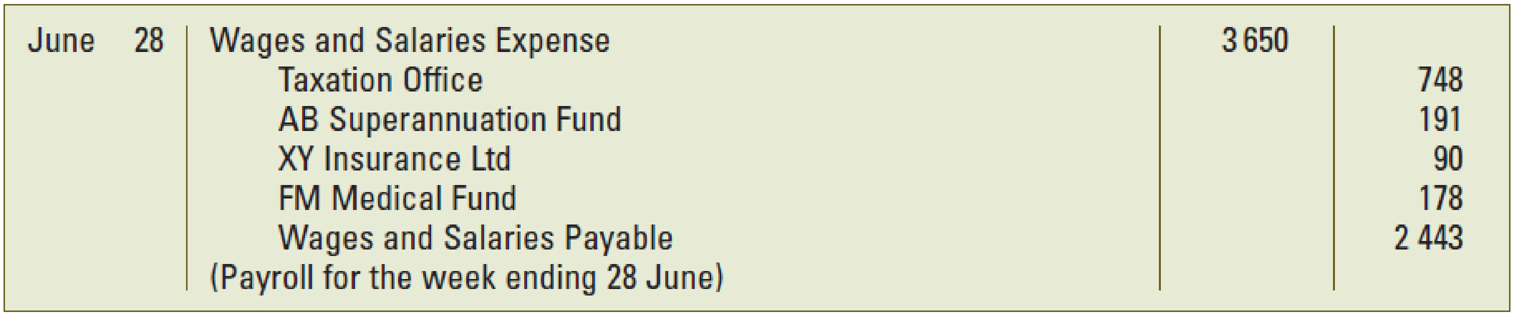
Employer's liability for deductions

The amounts deducted from an employee's gross pay are ***liabilities*** of the employer, who performs the duties of a collection agent. Various deductions must be paid when due to the government (tax instalments), and to other organisations where authorised by the employee (e.g. medical insurance). After the deductions are made but before they are remitted to the appropriate organisation, the amounts are ***liabilities*** of the employer. In turn, the employer is responsible for maintaining adequate records that provide the basis for filing any reports concerning the deductions and for making payments on time. The liabilities for the deductions are classified as current liabilities on the employer's balance sheet/statement of financial position until they are paid.

We now illustrate the recording of the expense of wages and salaries for an entity in a period, the liabilities that result from the wages and salaries earned, and the subsequent payment of those liabilities. Assume the following information, extracted from payroll records, covering all employees of Earth Ltd for a period of 1 week ending 28 June:

Gross pay		$3650
Deductions:		
Income tax instalments	$748	
Superannuation contributions	191	
Insurance premiums	90	
Medical insurance	178	1207
Net pay		$2443

The general journal entry to record the week's payroll is:



June	28	Wages and Salaries Expense	3 650	
		Taxation Office		748
		AB Superannuation Fund		191
		XY Insurance Ltd		90
		FM Medical Fund		178
		Wages and Salaries Payable		2 443
		(Payroll for the week ending 28 June)		

Note that this entry records the $3650 expense incurred by the entity for hiring its employees, and $3650 in liabilities to be paid in the future. The net pay, $2443, is paid to employees on 28 June, and all the liabilities for deductions will be paid at various times, depending on arrangements with outside bodies — most likely in the following month. The entry to pay employees their net pay is recorded in the cash payments journal on 28 June, and examples of such entries have appeared in previous chapters.

In a statement of financial position/balance sheet prepared at 30 June, all the credits above except net pay (which was paid on 28 June) are recorded as current liabilities. These amounts are, of course, added to the outstanding balances in the same accounts. Note also that, at 30 June, 2 days' pay has accrued to all employees and an end-of-period adjustment for accrued wages and salaries has to be made, as discussed in chapter 4.

To illustrate the payment on 15 July of liabilities for deductions in June, assume that records show that amounts owing for deductions are: Taxation Office $1976, AB Superannuation Fund $670, XY Insurance Ltd $296, FM Medical Fund $427. The entry in the cash payments journal to record the payment of these liabilities is:

Cash Payments Journal

Date	Account	Chq. no.	Post ref	Credits
				Cash at Bank
July 15	Taxation Office	054		1 976
	AB Superannuation Fund	055		670
	XY Insurance Ltd	056		296
	FM Medical Fund	057		427

Payroll ancillary costs

The expense of hiring employees can be considerably more than a fixed salary or simply multi-plying the number of hours worked by the rate per hour. There are a number of other benefits that must be taken into account. These other costs may be mandatory on the employer as they are required by government legislation, or are specifically set down in the various wage and salary agreements and contracts. These additional benefits arise because of the existence of benefits to employees which must be borne by the employer, such as annual leave, sick leave, maternity leave, workers compensation, public holidays and long-service leave. A brief introduction to some of these expenses is given below, together with a suggested accounting treatment to record such benefits.

Annual leave. Under employee awards and employment contracts, employees are generally entitled to a few weeks paid **annual leave**. The annual leave benefit usually accrues to an employee on a day-by-day basis throughout the year. Since annual leave is a right, employees are entitled to receive pro rata benefit for annual leave if they resign or are dismissed or retrenched during a period. Since the expense of annual leave usually accrues on a day-to-day basis, annual leave should be accrued on a regular basis throughout the year, and an appropriate liability recognised for leave unpaid.

To illustrate how this is done, let us suppose that Earth Ltd estimates that the gross wages and salaries payable for annual leave for the year is $28 200. At the end of each month, therefore,

one-twelfth of this amount ($2350) should be set aside. At the end of the reporting period any unpaid annual leave benefits arising from services rendered by employees throughout the reporting period meet the criteria for recognition as a liability. The general journal entry to recognise the expense and liability in each month is:

	Annual Leave Expense	2 350	
	Annual Leave Payable		2 350
	(Annual leave liability for the month)		

When annual leave is paid, an entry is made in the cash payments journal to debit the Annual Leave Payable account (a current liability) and credit the Cash at Bank account.

Sick leave. Many agreements provide for paid sick leave as an employee benefit. The period of sick leave to which an employee is entitled varies, but paid sick leave of 10 working days per year is common. Like annual leave, sick leave usually accrues to an employee on a day-to-day basis throughout the year. Any sick leave benefits owing to an employee and unpaid at the end of the entity's reporting period satisfy the recognition criteria for a liability. Accounting for sick leave is largely determined by the conditions attaching to the leave. Normally, sick leave is not paid out to employees when they cease employment. For this reason, most employers do not account for sick leave separately and simply treat it as a part of wages expense. However, IAS 19/AASB 119 requires an entity to estimate the amount of sick leave that is expected to be paid out in the future. The accounting entries for sick leave are similar to those for annual leave. To illustrate, assume that Earth Ltd estimates that the cost of sick leave benefits for each month of the coming year is $1400. The general journal entry to be made each month is set out below. Note that the Sick Leave Payable is a current liability.

Sick Leave Expense	1 400	
Sick Leave Payable		1 400
(Sick leave liability for the month)		

When sick leave is actually taken by an employee, an entry is made in the cash payments journal to debit the Sick Leave Payable account and credit the Cash at Bank account. Sick leave has to be paid at rates prevailing at the time of the leave; adjustments to the liability should be made if changes occur in wages and salary rates.

Workers compensation. **Workers compensation** relates to an insurance scheme whereby employees are compensated for injuries, loss of limbs and loss of life while at work. Under legislation, it is often compulsory for all employers to take out workers compensation insurance. This involves a cost to the employer in the form of the yearly premium payable to obtain the insurance cover. The premium is payable in advance and is based on a percentage of the estimated wages and salaries for the forthcoming year. The percentage rates of premium are variable and are set in such a manner as to reflect the relative occupational risks to which employees are exposed on the job.

Accounting for workers compensation is similar to the payment of any insurance premium. To illustrate, assume that Earth Ltd paid $8400 at the beginning of a year for workers compensation insurance. An entry is made in the cash payments journal resulting in a debit to Prepaid Workers Compensation Insurance and a credit to the Cash at Bank account. At the end of each month, the following general journal entry is made to reflect the workers compensation insurance expense for the month:

Workers Compensation Insurance Expense	700	
Prepaid Workers Compensation Insurance		700
(Workers compensation insurance expense for month)		

Public holidays. In any year, employees are typically entitled to at least 10 public holidays, which is the equivalent of 2 weeks work. Although there is a substantial expense involved to employers, there is no need for any special accounting treatment. Employees are simply paid in the normal way for public holidays. Unlike annual leave, there is no need to accrue the expense of public holidays or establish a liability.

Long-service leave. Another substantial expense of employment is paid **long-service leave**. Long-service leave represents paid leave granted to employees who have remained with the one employer over an extended period of time. Although leave benefits accrue over a long period, all the leave is paid at the rate of pay applicable when the leave is taken.

It is important to note that although the employee starts to accrue long-service leave from the beginning of employment, the employer is not liable to grant paid leave until the required period of employment has been completed, i.e. normally after 10 years. The general journal entry to record the expense and liability is:

		Long-service Leave Expense	xxx	
		Provision for Long-service Leave		xxx
		(Liability of long-service leave)		

Provision for long-service leave has an element of current liability but is largely non-current and is measured by the present value of expected future cash outlays. Because of the uncertainty in timing and amount, it seems this liability should be recorded and reported as a provision, rather than a payable. If material, the future amounts should be discounted to present value. When the employee is paid his or her leave benefit, an entry is passed debiting the Provision for Long-service Leave account and crediting the Cash at Bank account.

Warranties

IAS 37/AASB 137 suggests that establishing a provision for any warranty given on the sale of inventory is appropriate, as there is no doubt that an obligation to sacrifice future economic resources exists, but there is uncertainty as to the timing and the amount of the liability. Reasonably accurate estimates can be made of warranty costs from past experience with the same or similar products, or the experience of other entities in the industry concerned. Accounting for warranties involves establishing a liability called Provision for Warranties in the year the products are sold, and recognising an equivalent expense against the provision.

To illustrate, assume that No Risk Computers Ltd sells a particular brand of computer for $2860 (including GST), with a 1-year labour and parts warranty. Accounting records reveal that the average cost of repairing defective computers is $350, and that about 10% of computers sold require warranty repairs. Thus, if 2000 computers were sold in the year ending 30 June, it is necessary to establish a provision to cover future warranty costs. The estimate of the future warranty expense is $70 000 (2000 × 10% × $350).

The adjusting general journal entry to record the warranty expense associated with sales in the year ended 30 June and the provision for warranties is:

June	30	Warranty Expense	70 000	
		Provision for Warranties		70 000
		(Provision for warranty expense related to sales made in the year ended 30 June)		

Warranty expense is regarded as a selling and distribution expense, and the Provision for Warranties is shown as a current liability. On each occasion that warranty costs are incurred during the following year, the following journal entry (in general journal format) is made (note that the amount will differ depending on the circumstances of each claim):

July	15	Provision for Warranties	350	
		Cash at Bank		350
		(Warranty costs incurred on a faulty computer)		

Onerous contracts

An **onerous contract** is a contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. Where a contract has become onerous, it falls under IAS 37/AASB 137 and the standard requires the onerous contract to be recognised and measured as a provision. The unavoidable costs are the lower of the cost of fulfilling the contract and the cost of penalties involved in exiting the contract. For example, a business moves to new premises but still has some time to run on the lease on its old premises — the unavoidable costs are the lower of the cost of exiting the lease agreement and simply paying the rent on the old premises until the lease runs out.

BUSINESS KNOWLEDGE

Accounting issues from the Queensland and Victorian floods

The recent flood disasters in Queensland and Victoria have had a devastating and far-reaching economic impact. Many entities have been directly impacted by the flood disaster while other entities have been indirectly impacted through business relationships they have with those entities directly impacted. These economic impacts raise accounting issues that need to be considered. The recent flooding may result in certain contracts becoming onerous, for example a lessee of a building damaged by the floods who is still required to pay the lease payments despite being unable to use the premises. Furthermore, entities should consider the impact of any specific contract provisions which may come into effect as a result of the flood, for example, lease agreements, take or pay contracts, or the ability to honour minimum supply obligations. However, the existence of ‘force majeure’ clauses within contracts should be considered when assessing whether the contract is onerous.

Source: Excerpts from KPMG Reporting Update 21 January 2011, ‘Accounting issues arising out of the Queensland and Victorian floods’.

GST payable

Whenever entities in Australia sell goods and services that are subject to the GST, the entities must collect GST on behalf of the Australian Taxation Office (ATO). They thus have a liability to pay the GST they have collected to the ATO. To facilitate this, entities need to include a liability account for GST payable in their general ledger. The GST Payable account is a current liability because entities are required to submit GST payable, less any GST receivable, to the ATO on at least a quarterly basis.

To illustrate, consider No Risk Computers Ltd, which sells computers for $2860 each, including GST, on credit. Whenever a computer is sold, the following journal entry is made:

May	20	Accounts Receivable	2 860	
		Sales		2 600
		GST Payable		260
		(Sale of computer, including 10% GST)		

No Risk Computers Ltd purchases the computers from its supplier for $1540 each, including GST. Whenever No Risk purchases a computer, the following journal entry is made:

May	10	Purchases/Inventory	1 400	
		GST Receivable	140	
		Accounts Payable		1 540
		(Purchase of computer, including 10% GST)		

No Risk Computers Ltd pays GST to the ATO in the month following each quarter. Assume that for the quarter ended 30 June, the balance in the GST Payable account is $130 000 and the balance in the GST Receivable account is $110 000, so the following journal entry is made on the date of payment:

July	28	GST Payable	130 000	
		GST Receivable		110 000
		Cash at Bank		20 000
		(June quarter payment of GST)		

Note that the two accounts are offset and the balance is paid to the ATO, thus discharging the liability for the June quarter. In practice, some businesses may combine the two GST accounts into one clearing account which is called the GST Payable account. The journal entries are:

June	30	GST Payable	130 000	
		GST Receivable		110 000
		GST Payable		20 000
		(June quarter liability for GST)		
July	28	GST Payable	20 000	
		Cash at Bank		20 000
		(June quarter payment of GST)		

LEARNING CHECK

- ☐ Accounts payable usually relate to the purchase of inventory, supplies and services that do not usually incur interest or have a formal debt instrument.
- ☐ Bills payable are a formal debt instrument and usually incur interest.
- ☐ Employee benefits are covered by IAS 19/AASB 119 and include all forms of consideration given by an entity in exchange for services rendered by employees.
- ☐ Warranties are a provision under IAS 37/AASB 137 because there is uncertainty about their timing and the amount is based on a best estimate, e.g. past experience of claims by customers.
- ☐ GST payable is tax collected on behalf of the government that must be paid yearly or at regular intervals in the year. The amount payable is determined by netting off against GST payable any input credits in the form of GST receivable.

16.6 Non-current liabilities

LO 6 Explain the nature of the major categories of non-current liabilities and how to account for them.

Non-current liabilities generally include long-term borrowings such as debentures, unsecured notes, mortgage loans, unsecured long-term loans, and long-term commitments under a finance lease. They may also include provisions for long-service leave and warranty costs payable beyond the 12 months or operating cycle, as well as any long-term accounts payable. Note that the part of the non-current liabilities which comes due for payment within 1 year of the end of the reporting period or within the operating cycle is classified and reported as a current liability. This section deals with the accounting treatment of major types of non-current liabilities.

Entities obtain funds needed to operate a business by borrowing from a variety of lending sources. The method of financing depends on several factors, one of which is the length of time required to convert the assets acquired with the borrowed funds back into cash. Inventories that will be sold in the near future, for example, are usually financed through short-term credit. Cash needed to finance seasonal activities is generally borrowed through short-term bills or loans because current operations are expected to produce sufficient cash to repay the loan.

On the other hand, when an entity finds it necessary to obtain funds for long-term purposes such as the acquisition of non-current assets, the funds are often obtained by long-term borrowing. Deferring the payment for an extended period will allow time for the acquired assets to generate sufficient cash to cover interest payments and accumulate the funds needed to repay the loan.

The repayment of long-term debt can take up to 20 or more years. The agreement between the lender and the borrower usually provides for periodic interest payments on specified dates as well as the repayment of the amount borrowed. The borrower receives current dollars in exchange for a promise to make payments to the lender at specified intervals into the future. Dollars received and paid at different times are made comparable by considering the time value of money. (If you have not been exposed to present value concepts before, refer to the coverage in the appendix at the back of this book, and study the concepts and calculations presented.)

The types of non-current liabilities

Typical non-current liabilities are as follows.

- **Term loans**: a liability which arises by borrowing from banks, life insurance companies, and other financial institutions for periods up to 10 years. The interest rate, which is usually higher than the bank overdraft interest rate, may be fixed or may vary in accordance with general market interest rate levels. Some form of security, such as the assets being financed, is usually required against the loan, which requires repayment of interest and capital.

- **Mortgage payable**: a liability in which specific property of the borrower serves as collateral (security) for the loan. **Collateral** is something of value acceptable to the lender that can be converted into cash to satisfy the debt if the borrower defaults.
- **Debentures or bonds**: a form of liability, either secured or unsecured, generally issued when a large amount is borrowed from many lenders. Under Australia’s Corporations Act, the term ‘debenture’ is given the general meaning of a document that evidences indebtedness of a company in respect of money borrowed by the company, whether constituting a charge on property of the company or not, other than:
  - **(a)** a cheque, or order for the payment of money on a bill of exchange
  - **(b)** a promissory note having a face value of not less than $50 000
  - **(c)** a document acknowledging a debt where the transaction occurs in the ordinary course of business between a borrower and a lender.

Normally, debentures represent a long-term secured liability borrowed from many lenders, who receive regular interest payments for the funds provided. Term loans and mortgages are normally used when money is borrowed from one or several lending institutions such as banks or insurance companies. Often, however, a few lenders may not be able or willing to lend the total amount of money needed. In such situations, long-term funds may be obtained by issuing debentures to many lenders drawn from the investing public at large.

Other types of non-current liabilities are lease contracts, superannuation liabilities, certain types of redeemable preference shares, and liabilities for long-service leave. GST is not payable on financial instruments.

BUSINESS KNOWLEDGE

Accommodation bonds for aged care

An accommodation bond, which is paid when someone is entering a low-care facility or a high-care facility with extra services, is really an interest-free loan to a facility. Aged care operators are permitted to retain a maximum of $19 380 over five years, with the rest being returned to the resident or their estate when they leave the facility. The amount of bond that someone pays is currently negotiable with the facility. The average for a bed in a metropolitan facility is about $350 000. Permitted uses for a resident’s bond include capital expenditure, refunding bonds, refunding debt accrued for capital expenditure and refunds, investment in particular financial products, and loans for capital works or investment in particular financial products. Lynden Aged Care chief executive Ann Turnbull says the arrangements (under reforms proposed in the government’s Living Longer, Living Better aged care program) clarify the intended purpose for bonds as a source of capital for investment in aged care infrastructure.

Source: Based on information from Brown, B 2012, ‘Stricter rules for care bonds’, ***The Australian Financial Review***, 24 November.

Debentures

In general terms, a debenture is a written promise to pay a principal amount at a specified time and interest on the principal at a specified rate per period. Once issued (sold), the debenture becomes a non-current liability to the issuer and an investment to the buyer. When a debenture is issued, a certificate is given to the buyer as evidence of the company’s indebtedness.

The company borrowing money must establish a **trust deed** and appoint a trustee under the deed. The trust deed indicates the interest rate to be paid, the dates interest is to be paid, the maturity date, the principal amount, and other features included in this particular issue such as the debenture holders' right to convert the debentures into ordinary shares. The trust deed may include covenants which are designed to provide protection to the debenture holders and prevent the borrowing company from borrowing beyond certain limits. Examples of covenants are the requirement that total secured creditors cannot exceed 40% of total tangible assets and that total borrowings cannot exceed 60% of total tangible assets.

Debentures are generally issued by companies in denominations of $100, which is called the **nominal value**, **face value** or **principal**. On the **maturity date**, the borrower must repay the nominal value to the debenture holder. Maturity dates vary, but most debentures are issued by finance companies and usually range from 1 month to 5 years.

A total debenture issue of $4 000 000 would generally consist of 40 000 debentures each of $100 nominal value. The division of the total issue into relatively small units permits more investors to participate in the issue.

Before a company issues debentures, it must issue a prospectus, which in Australia must be lodged with the Australian Securities and Investments Commission. The prospectus is an important document in that it is a marketing aid for a company to attract investors and also provides information to potential investors about the securities being purchased. Under the Corporations Act, a prospectus must contain all such information that investors and their professional advisers would reasonably require in order to assess:

- the assets and liabilities, financial position, profits or losses, and prospects of the issuing company
- the rights and liabilities attaching to the securities.

In so doing, a company must have regard for the type of investors being sought, e.g. many small investors or a small number of large institutional investors.

A copy of the full prospectus (or a short-form prospectus, if appropriate) must be attached to an application form for the issue of debentures. Any interested person may then fill out the application form and forward it to the issuing company for further action. Directors of the company can, after a certain specified time, allot debentures based on applications received.

Because the debentures may be held by numerous individual investors, a corporate body is usually appointed as a **trustee** by the issuing company to represent the debenture holders. In most cases, the trustee is a large bank, insurance company or trust company whose main duty is to ensure that the issuing company fulfils the terms and covenants of the trust deed. The borrowing company then has certain obligations to the trustee, including giving the trustee quarterly reports on the progress of the company during the life of the debentures.

A specified rate of interest is paid on the nominal value throughout the life of the debentures. The rate, called the **coupon rate**, **nominal rate** or **stated rate**, is expressed as a percentage of nominal value. Interest payments are normally made quarterly or half-yearly, although the stated rate of interest is expressed as an annual rate.

Debenture prices are quoted as a percentage of nominal value. For example, the price of a $100 nominal value debenture quoted at 104 is $104 ($100 × 104%). Debentures may be sold at nominal value, which means that the debenture price is 100. If the debenture price is below 100, e.g. 98, the debentures are said to sell at a **discount**; if the price is above 100, e.g. 104, the debentures are said to sell at a **premium**. The amount of the discount or premium is the difference between the issue price and the nominal value of the debenture. For example, a debenture quoted at 104 is selling at a $4 ($104 – $100) premium. Alternatively, if the company received $92 for a $100 debenture, there is an $8 discount.

Types of debentures

A trust deed is written to satisfy the financial needs of the borrower, but the agreement also must be attractive to a sufficient number of investors. Consequently, individual debenture issues with a variety of features have been created.

- ***Mortgage debentures.*** A **mortgage debenture** is one in which no more than 60% of the value of land controlled by the company is mortgaged as security for the debenture. If the entity fails to satisfy its obligations as specified in the trust deed, the land may be sold and the proceeds used to satisfy the indebtedness.

- ***Debentures.*** Holders of debentures are secured by a charge over the whole or any sufficient part of the tangible property of the company. This charge may be fixed on a particular asset, or floating generally over all of the entity's tangible assets.
- ***Unsecured notes.*** If the loan cannot be described as a mortgage debenture or debenture, as above, it must be described as an unsecured note. Thus, **unsecured notes** are, in effect, borrowings with no claim over any of the company's assets, and rank with ordinary creditors for repayment of debt in the event of the liquidation of the company.

A debenture issue may contain other special features. For instance, debentures may be irredeemable except at maturity date, or redeemable earlier than maturity at the option of the issuing company. Early redemption is commonly made at a price above nominal value, i.e. at a premium. Alternatively, the debentures may be convertible into ordinary shares after a certain period of time.

Although debenture and note issues may contain different features, accounting for the various issues is similar. Because the features of long-term debt are important to potential investors, they are disclosed in the company's financial statements, usually in footnotes. The disclosure contains the interest rate, interest payments, maturity date, and any assets pledged as security. Examples of such disclosures can be seen in the annual reports of most public companies.

Accounting for debentures

When debentures are issued at nominal value, payable in full on application, money received from applicants who have sent in their application forms from the prospectus must be held in trust until directors have allotted the debentures to successful applicants. No formal journal entries are made when the prospectus is issued. To illustrate, assume that on 15 May 2018, Kelly Ltd's board of directors authorised the issue of 1000 $100 8% debentures for 5 years, payable in full on application. The date of allotment was 1 July 2018. Interest is payable half-yearly on 30 June and 31 December. There are no other special features in the trust deed. All debentures were applied for and allotted on 1 July. The entries to record the issue are (in general journal form):

2018				
July	1	Cash Trust	100 000	
		Application – Debentures		100 000
		(Money received on application for debentures)		
	1	Application – Debentures	100 000	
		Debentures		100 000
		(Allotment of 1000 $100 debentures)		
	1	Cash at Bank	100 000	
		Cash Trust		100 000
		(Transfer to cash at bank on allotment)		

Note that, for legal reasons, all money received on application is held in a Cash Trust account until the debentures are allotted to applicants. On allotment, the money in the Cash Trust account is then transferred to the company's normal Cash at Bank account and is available for use by the company.

In this example, interest of $4000 ($100 000 × 8% × 6/12) is due each 30 June and 31 December until the debentures mature. The entry to record the first half-yearly interest payment is:

Dec.	31	Debenture Interest Expense	4 000	
		Cash at Bank		4 000
		(Paid half-yearly interest on 8% debentures)		

During the 5-year period until the debentures mature, total interest expense of $40 000 is reported.

When a business has made a number of different debenture issues, the Debentures account represents a control account, and a subsidiary ledger is kept that records details of each separate issue.

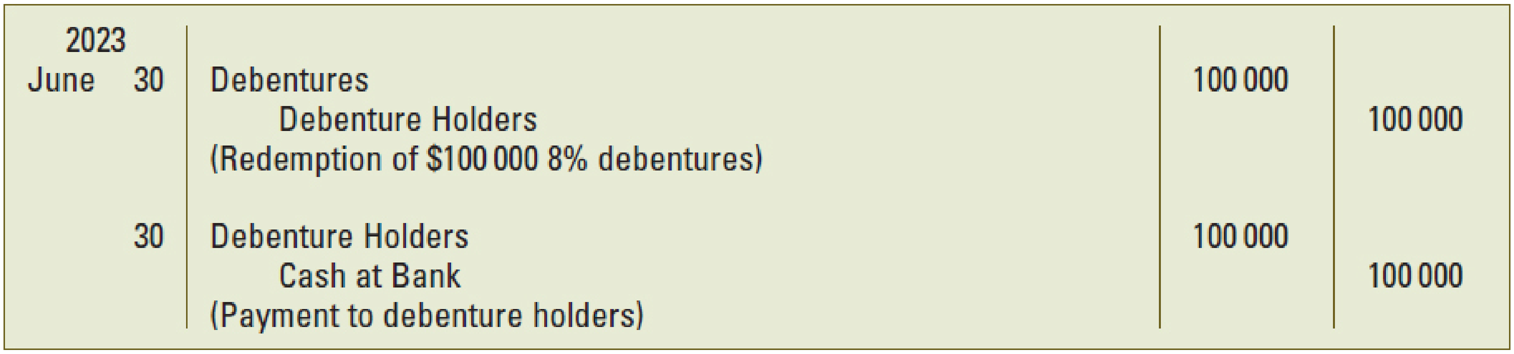
Some debentures may be traded on the open market. Depending on a number of factors, such as current interest rates and the financial position of the borrower, the price of the debentures will fluctuate above or below their nominal value. Changes in the market price of the debentures are not entered in the entity's accounts because such changes do not alter the entity's commitment to make the stated half-yearly interest payments and to pay the nominal value when the debentures mature.

Redemption of debentures

When the debentures are issued, the entity undertakes to pay to debenture holders the interest payable at regular intervals, and eventually to repay the principal. As noted above, debenture holders' rights are protected by the existence of a trust deed, with security for the debt covered by a fixed or floating charge over some or all of the entity's assets. The entity can be released from its obligations under a trust deed in a number of ways — by redemption in cash, by redemption with cash accumulated in a sinking fund, or by defeasance.

When debentures are redeemed in cash at maturity, the entity can pay the nominal value of the debentures, pay an amount higher than the nominal value (redeem at a premium), or pay an amount less than nominal value (redeem at a discount). In this book, the redemption at nominal value only is illustrated. Assume that $100 000 of Kelly Ltd's debentures are redeemed on 30 June 2023 by the cash payment of $100 000.

The journal entries (in general journal format) to redeem debentures are:



2023			
June 30	Debentures	100 000	
	Debenture Holders		100 000
	(Redemption of $100 000 8% debentures)		
30	Debenture Holders	100 000	
	Cash at Bank		100 000
	(Payment to debenture holders)		

Other methods of redemption are by sinking fund and by defeasance. **Redemption by sinking fund** means that the entity has established a fund into which it puts resources over the term of the debentures to buy assets such as government bonds. These investments are then used to redeem the debentures on maturity. **Defeasance** is an arrangement whereby the obligations under the trust deed are avoided by replacing each cash payment obligation with some other arrangement. Redemption by sinking fund and defeasance are beyond the scope of this book and are covered in more advanced books on accounting and finance.

Other non-current liabilities

Usually, a balance sheet/statement of financial position contains a number of different kinds of non-current liabilities other than debentures. Other common types of non-current liabilities are unsecured notes, mortgage payable, term loans, lease obligations, superannuation liabilities and liabilities for long-service leave.

Unsecured notes

The issue and redemption of unsecured notes are treated in the same way as debentures, except for the use of an Unsecured Notes account rather than a Debentures account.

Mortgage payable

A company may borrow money or finance the purchase of non-current assets on credit by giving the lender or seller a note secured by a legal document which is called a mortgage. A **mortgage** is a lien on specific property of the borrower (i.e. the lender, in effect, 'owns' the debtor's property until the debt is paid). If the debt is not paid, the mortgage holder (lender) may have the specific property sold, and the proceeds of the sale go towards reducing the debt.

Mortgage contracts generally require the borrower to make equal periodic payments that include both accrued interest and a reduction in principal. Each payment is applied first to the accrued interest; the remainder of the payment reduces the principal. As the principal balance declines over time, the portion of each payment assigned to interest decreases and the portion assigned to a reduction of principal increases.

To illustrate, assume that Action Airlines purchased a passenger plane for $2 500 000 on 1 September 2018. Action Airlines gave the seller a 12% mortgage that provided for a

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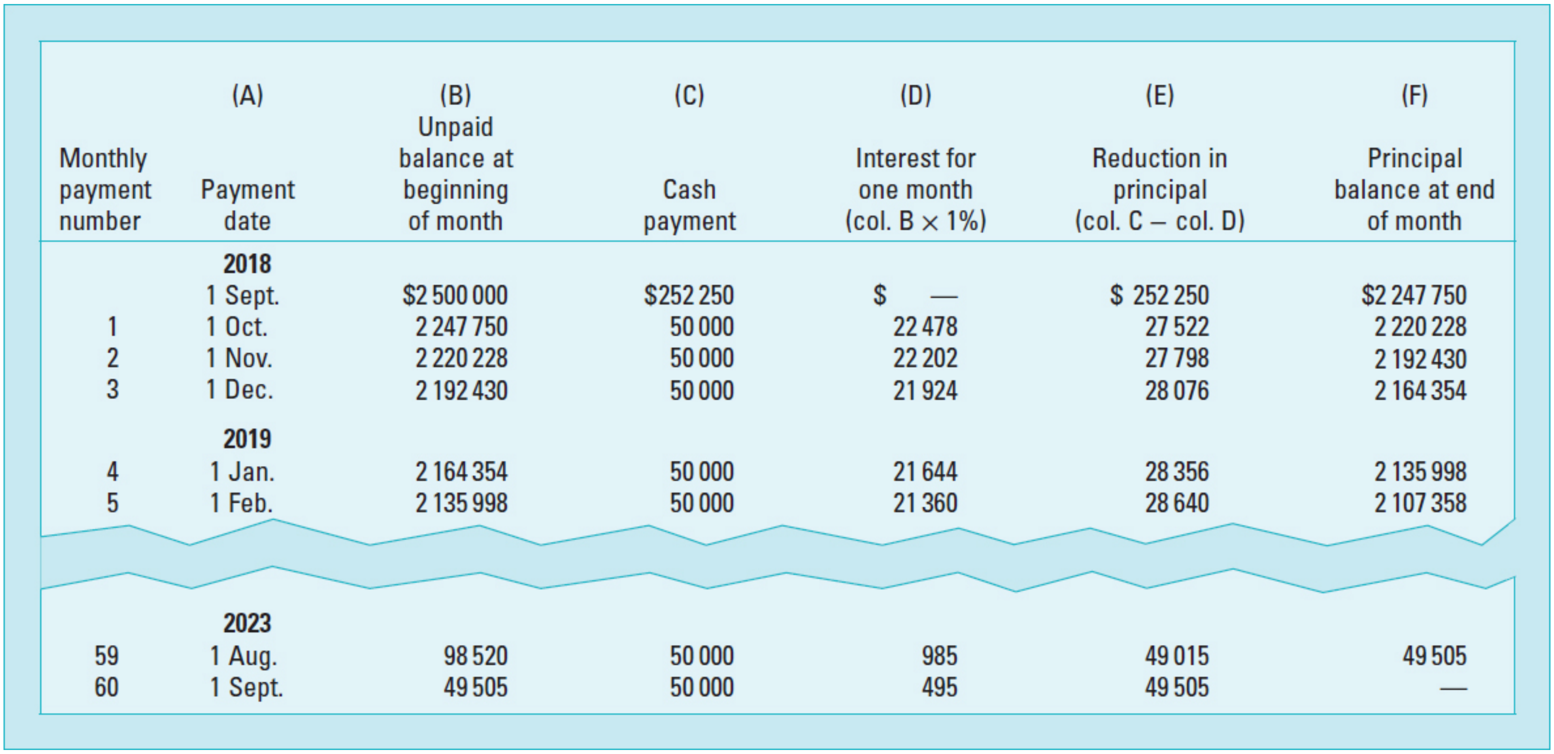
$252 250 deposit and 60 monthly payments of $50 000 each to begin on 1 October 2018. The division of the first five and last two monthly payments between interest and principal is shown in figure 16.2.

Figure 16.2 Monthly payment schedule



Monthly payment number	(A) Payment date	(B) Unpaid balance at beginning of month	(C) Cash payment	(D) Interest for one month (col. B × 1%)	(E) Reduction in principal (col. C – col. D)	(F) Principal balance at end of month
	2018					
	1 Sept.	$2 500 000	$252 250	$ —	$ 252 250	$2 247 750
1	1 Oct.	2 247 750	50 000	22 478	27 522	2 220 228
2	1 Nov.	2 220 228	50 000	22 202	27 798	2 192 430
3	1 Dec.	2 192 430	50 000	21 924	28 076	2 164 354
	2019					
4	1 Jan.	2 164 354	50 000	21 644	28 356	2 135 998
5	1 Feb.	2 135 998	50 000	21 360	28 640	2 107 358
	2023					
59	1 Aug.	98 520	50 000	985	49 015	49 505
60	1 Sept.	49 505	50 000	495	49 505	—

The entry to record the 1 October 2018 payment is:

Oct.	1	Interest Expense	22 478	
		Mortgage Payable	27 522	
		Cash at Bank		50 000
		(Monthly mortgage payment)		

For reporting purposes, the part of the unpaid principal balance to be paid during the next year is classified as a current liability, with the balance of the principal classified as a non-current liability.

Term loans

Term loans are similar to mortgages payable but there is no mortgage as such. Other security or guarantees are usually required. The accounting is the same as for mortgages payable.

Lease obligations

A **lease** is a rental agreement in which the lessee obtains from the lessor (the owner) the right to use property for a stated period of time in return for a series of rental payments. Many entities lease much of their equipment rather than purchase it, for one or more of the following reasons.

- The full lease payment, even for land, is deductible for tax purposes.
- Lease contracts may be more flexible and contain fewer restrictions than most debt agreements.
- The risk of obsolescence is shifted to the lessor.

Because of these advantages, the use of leasing has grown rapidly in the last 50 years. As a result, the accounting profession has devoted a great deal of effort to the establishment of accounting standards for lease reporting.

Accounting for leases by the lessee is similar to that described earlier for a mortgage payable. The lessee records the leased property as a non-current asset and credits a non-current liability for the future lease payments. The asset and liability are recorded at an amount equal to the present value of the future lease payments. Part of each lease rental payment is recorded as interest expense, and the remainder is a reduction in the principal balance. In addition, the leased asset is depreciated over the period that it is expected to be used in the normal manner for charging depreciation.

Accounting for leases is a specialist topic, and is covered in more advanced accounting books.

Why finance through long-term debt?

One function of management is to select the types of finance that are most advantageous to the entity. The major advantages and disadvantages of issuing long-term debt rather than owners' equity result from the legal distinction between creditors and owners.

The ***advantages*** of issuing long-term debt from the point of view of the owners include the following.

- Creditors do not have voting rights and therefore cannot participate in the management of the entity. This avoids diluting the control of the existing owners.
- Creditors do not share in any excess profits of the entity as they are entitled to only the interest on the debt.
- Owners can receive a greater return than if more shares are issued.

The ***disadvantages*** of issuing long-term debt from the point of view of the owners include the following.

- Interest payments to creditors must be made each period as specified in the debt instrument regardless of whether the entity is profitable, whereas if funds are raised through the issue of shares, dividends do not have to be paid. This makes long-term debt a more risky option for the owners of an entity than a new share issue.
- Default on the interest commitment could result in a forced winding-up of the entity.
- If the entity is wound up, creditors must be paid in full before any asset distribution is made to owners.

Even though an entity may be able to raise funds by selling shares, long-term debt is often issued because of the gearing provided and the income tax treatment of interest payments. **Gearing (or leverage)** is the use of borrowed funds to earn a return greater than the interest paid on the debt. The use of debt has the additional advantage of interest expense being deductible in calculating taxable income, whereas dividends on shares are not tax-deductible.

To illustrate the effect of debt financing versus equity financing (raising money by selling shares), assume that a company with $2 000 000 in shares is currently earning $400 000 a year profit before income tax. The company needs to raise $1 000 000 in additional funds to finance a planned expansion of the plant. Management estimates that, after the expansion, profit will be $700 000 annually before interest and income tax. The $1 000 000 can be obtained from one of the two plans that are proposed for consideration:

- Plan 1 — issue 1 000 000 shares at $1 each
- Plan 2 — issue 8% debentures.

It is assumed that each security is issued at its total value of $1 000 000. Income tax is assumed to be 30%. The effect of these two plans on the profit available to shareholders is shown in figure 16.3.

Figure 16.3 Illustration of two plans to finance expansion

	Existing operations	Plan 1: shares	Plan 2: debentures
Shares currently issued	2 000 000	2 000 000	2 000 000
Additional shares issued	—	1 000 000	—
Total	2 000 000	3 000 000	2 000 000
Profit before debenture interest and income tax	$ 400 000	$ 700 000	$ 700 000
Less: Debenture interest expense	—	—	80 000
Profit before income tax	400 000	700 000	620 000
Less: Income tax (30%)	120 000	210 000	186 000
Profit	$ 280 000	$ 490 000	$ 434 000
Number of shares issued	2 000 000	3 000 000	2 000 000
Earnings per share	14c	16.3c	21.7c

Using earnings per share (profit ÷ number of issued shares) as the sole criterion for making the decision, Plan 2 is the most attractive to the existing shareholders despite the payment of $80 000 in interest each period. This results from a combination of two factors. First, the entity is predicting that profit after tax will increase by $210 000 [$300 000 − (30% × $300 000)] before debenture interest expense is deducted. Second, because interest is a tax-deductible expense, the cost of borrowing is considerably less than the $80 000 paid to the debenture holders. In other words, the after-tax cost of borrowing is $56 000, which is the $80 000 expense minus the $24 000 (30% × $80 000) tax saving (reduction in income tax expense). The net increase in profit after tax of $154 000 ($210 000 − $56 000) accrues to the existing shareholders. Although Plan 1 shows an increase in profit after tax of $210 000 ($490 000 − $280 000), the increase is divided over 50% more shares.

This analysis was based on the effect of the alternative plans on earnings per share and on a favourable gearing assumption. In financial planning, however, management cannot ignore the fact that the debentures will eventually mature and require repayment and that the fixed interest cost must be paid each period. At lower levels of profit, Plan 1 becomes more attractive. For example, if the company were to earn $80 000 before interest and taxes, the entire amount would be offset by the interest cost. At lower earnings levels, the company may be unable to generate sufficient cash to satisfy the interest payments and could be forced into liquidation.

Whether an entity relies on long-term debt or a share issue to finance long-term expansion, there is a risk–return trade-off for the owners. Long-term debt provides the potential for a greater return for the owners but also greater risk. Issuing shares involves less return for the owners but also less risk of going into liquidation.

LEARNING CHECK

☐ Non-current liabilities are payable after the next accounting cycle or more than 12 months after the end of the reporting period.

☐ Debentures are normally a long-term secured liability borrowed from many lenders who receive regular interest payments.

☐ Debentures may be issued at their nominal rate or at a premium or discount.

☐ A mortgage is a lien on specific property and requires the repayment of principal and interest.

☐ A lease is a rental agreement where the lessee obtains the right to use property for a stated period of time in return for rental payments.

☐ If the lease is classified as a finance lease, i.e. if substantially all the risks and benefits of ownership pass to the lessee, the present value of future lease payments must be recorded by the lessee as an asset and as a liability.

- If the lease is classified as an operating lease, i.e. if substantially all the risks and benefits of ownership are retained by the lessor, lease payments are expensed.
- Whether to finance with long-term debt or equity depends on the risk–return trade-off for the entity.

16.7 Analysing liabilities for decision making

LO 7 **Analyse liabilities for decision-making purposes.**

In this chapter, we have seen that liabilities involve an outflow of resources embodying economic benefits that an entity is ***presently obliged to make*** as a result of past events. To ensure a continuing capacity to meet current or short-term liabilities, the operating cycle has to be managed to make sure that cash inflows are sufficient to cover current or short-term liabilities as they come due for payment. Sufficient cash also has to be generated in the operating cycle to provide the entity with the capacity to meet periodic interest payments and other charges associated with non-current liabilities. In the longer term, cash reserves have to be built up to provide the entity with the capacity to repay the principal on non-current liabilities. Creditors, both current and non-current, have a particular interest in an entity's liquidity and financial stability.

Cash management is a very important function of management, and external users are interested in how well the entity's short-term liquidity and its long-term financial stability are managed. Most entities, both large and small, that go into liquidation (i.e. are wound up) do so because of failure to successfully achieve an adequate level of liquidity and financial stability. Apart from evaluating absolute amounts of cash inflows and cash outflows, a number of common ratios can be used to analyse liabilities and their effect on liquidity and financial stability. These ratios can highlight areas of concern, and appropriate decisions can be taken to remedy any undesirable aspects and trends in liquidity and financial stability. These ratios are discussed below.

Liquidity ratios

Liquidity ratios provide a measure of an entity's ability to pay its short-term obligations and meet unexpected demands on its cash resources.

Current ratio

Perhaps the most commonly used measure of liquidity is the current ratio, which is calculated as:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The current ratio, a measure of the entity's ability to satisfy its obligations in the short term, measures a margin of safety for the creditors. It indicates how much current assets exceed current liabilities on a dollar-for-dollar basis. A low ratio may indicate inability to meet short-term debts in an emergency. A high ratio is considered favourable to creditors, but may indicate excessive investment in current assets that may not be contributing to profits.

Analysts often suggest as a rule of thumb that the current ratio should be at least 1.5:1; in other words, an entity should maintain $1.50 of current assets for every dollar of current liabilities. Although such rules may be one standard of comparison, they are arbitrary and subject to exceptions and numerous qualifications in the modern approach to statement analysis. Deviations from the rule, nevertheless, highlight an area that deserves further investigation.

Quick ratio or acid test ratio

One of the limitations of the current ratio is that it includes inventory and prepaid assets in the numerator.

These items are not as liquid as cash, marketable securities (e.g. shares), current bills receivable and accounts receivable. In the normal course of business, inventories must first be sold, and then the cash collected, before cash is available. Also, most prepaid assets are to be consumed and cannot be readily converted back to cash. A ratio used to supplement the current ratio that provides a more rigorous measure of liquidity is the quick ratio, or acid test ratio as it is sometimes called. The quick ratio is calculated as follows:

$$\text{Quick ratio} = \frac{\text{Cash at bank} + \text{Marketable securities} + \text{Net receivables}}{\text{Current liabilities}}$$

The higher the ratio, the more liquid the entity is considered. A rule of thumb used by some analysts is that a 0.9:1 ratio is adequate. A lower ratio would indicate that, in an emergency, the entity may be unable to meet its immediate obligations.

Although a single measure of the above ratios can be useful for decision making, the trend in these ratios over time is more informative.

The current ratio and quick ratio are used to measure the adequacy of the current assets to satisfy current obligations at one point in time, the end of the reporting period. These ratios do not consider the movement of items making up the current assets. An important aspect of the entity's operations affecting liquidity is how long it takes to convert receivables and inventories into cash. Since receivables and inventories normally make up a large percentage of current assets, a quick ratio and a current ratio may be misleading if there is an extended interval between purchasing inventory, selling it, and collecting cash from the sale. The receivables turnover and inventory turnover ratios are two other measures of liquidity that can provide additional information and that should be used together with the quick and current ratios. (These ratios were covered in previous chapters.)

Financial stability ratios

Financial stability ratios are used to analyse the ability of an entity to continue its activities in the long term, to satisfy its long-term commitments, and still have sufficient working capital to operate successfully. Two such ratios are covered below.

Debt ratio

The proportion of total assets financed by creditors is important to long-term investors since the creditors have first claim to assets in the event of liquidation — the creditors must be paid before assets are distributed to owners. The greater the percentage of assets contributed by owners, the greater the protection for the creditors. The debt ratio is a measure of the relationship between total liabilities and total assets and is calculated as:

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

Since this ratio is a measure of the margin of safety to the creditors in the event of liquidation, the lower the ratio, the greater the asset protection for the creditors.

Equity ratio

Another ratio that attempts to assess long-term stability and is sometimes used in place of the debt ratio is the equity ratio. This ratio is also referred to as the proprietorship ratio. The equity ratio examines the relationship between equity and total assets and is calculated as:

$$\text{Equity ratio} = \frac{\text{Total equity}}{\text{Total assets}}$$

As with the debt ratio, the equity ratio is a measure of the margin of safety to creditors in the event of liquidation. The higher the equity ratio, the greater the asset protection for creditors.

Note the following relationship between the debt ratio and equity ratio — one is the complement of the other. This is because total assets are financed by either debt or equity.

$$\text{Debt ratio} + \text{Equity ratio} = 1 \text{ or } 100\%$$

A further variation of the debt ratio and the equity ratio that is sometimes used is the capitalisation ratio (or gearing ratio), which is calculated as:

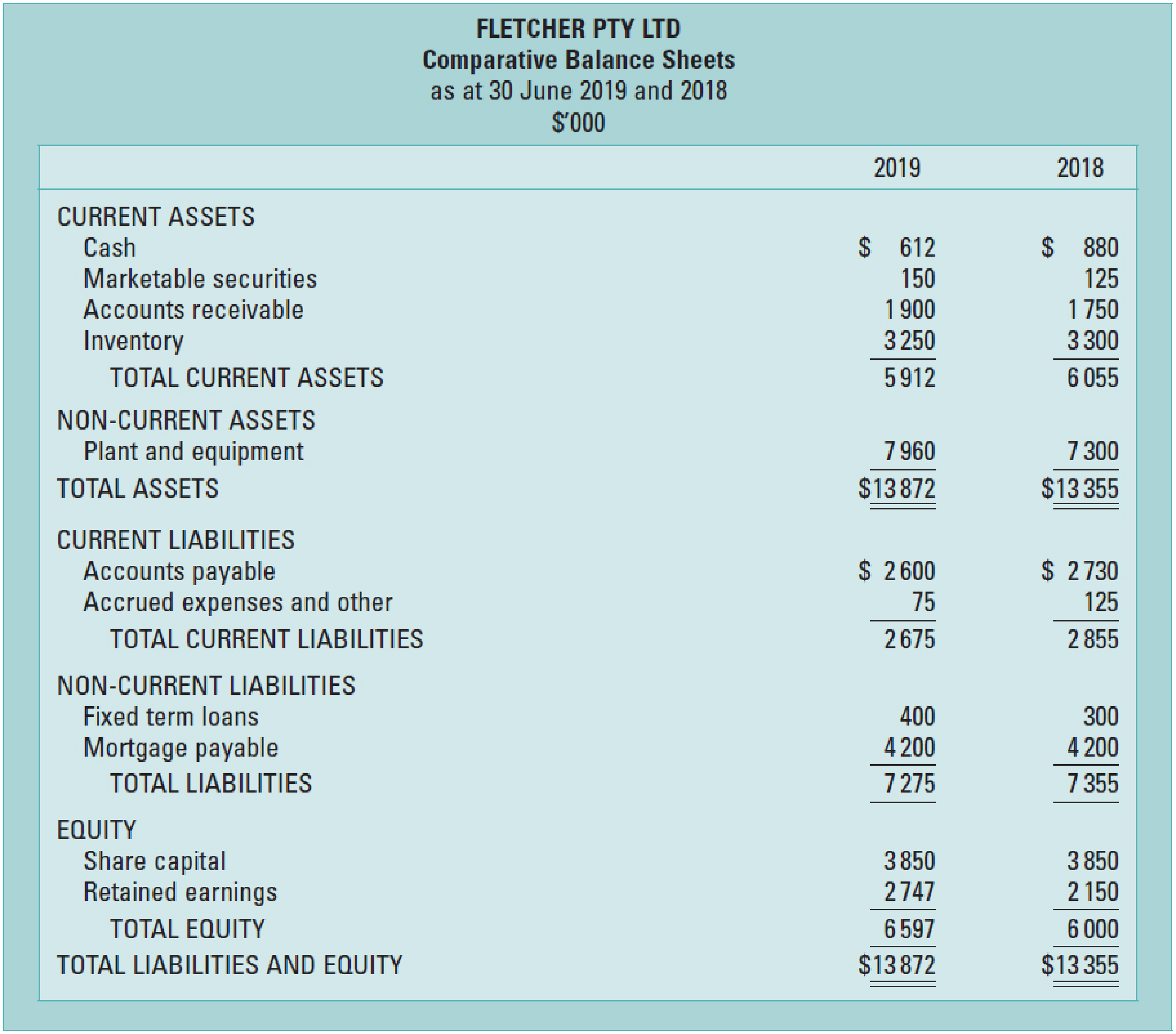
$$\text{Capitalisation ratio} = \frac{\text{Total assets}}{\text{Total equity}}$$

As with the debt and equity ratios, the capitalisation ratio points out the extent to which assets are financed by equity. It is usually expressed as a ratio, e.g. 2:1, which indicates that the equity structure of the entity is 50% equity and 50% debt. The capitalisation ratio is the reciprocal of the equity ratio and is simply another method of determining the amount of gearing in existence in the entity. It does not tell us anything about the desirability or otherwise of the gearing level in the entity. Trends in the ratio over time and comparison with the ratios of similar entities provide useful information regarding long-term stability and the degree of risk management has undertaken by financing assets with long-term debt.

Illustration of ratios

To illustrate the above ratios, the comparative balance sheets of Fletcher Pty Ltd are shown in figure 16.4 (overleaf). Calculate the following ratios — current ratio, quick ratio, debt ratio, equity ratio and capitalisation ratio for the years 2019 and 2018. Analyse the ratios, given that the industry averages for the above ratios are: current ratio 2.5:1, quick ratio 1.3:1, debt ratio 40%, and capitalisation ratio 2.5:1.

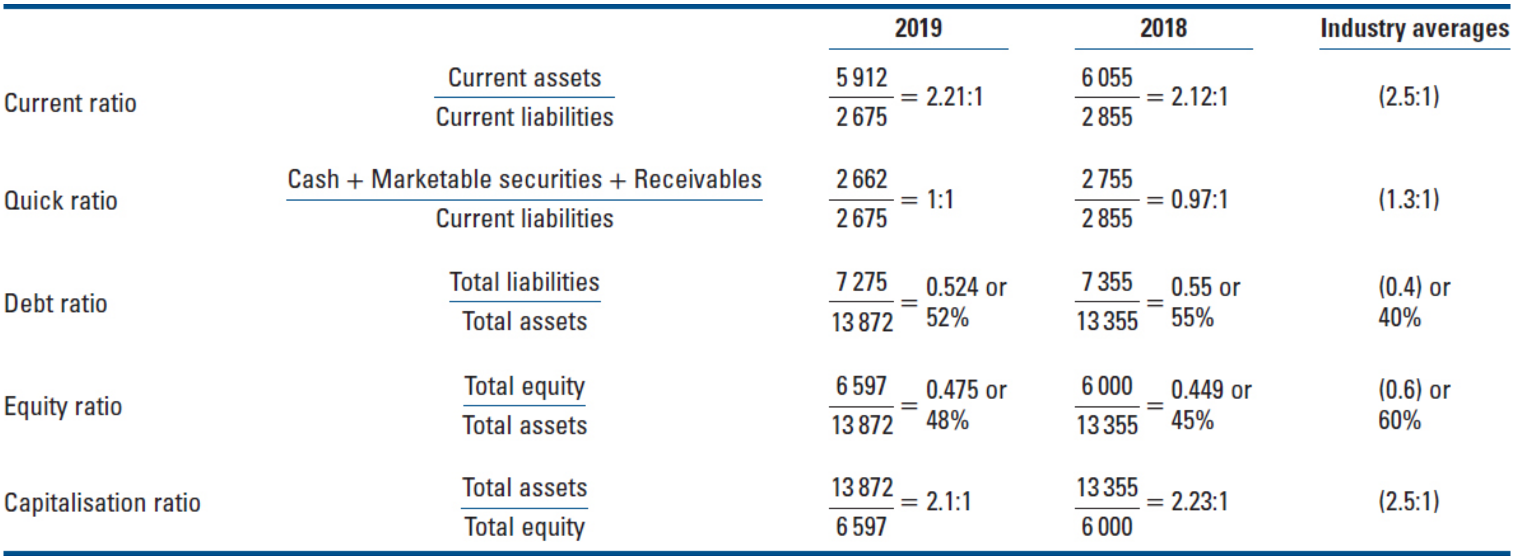
Figure 16.4 Comparative balance sheets — Fletcher Pty Ltd



FLETCHER PTY LTD
Comparative Balance Sheets
as at 30 June 2019 and 2018
$'000

	2019	2018
CURRENT ASSETS		
Cash	$ 612	$ 880
Marketable securities	150	125
Accounts receivable	1 900	1 750
Inventory	3 250	3 300
TOTAL CURRENT ASSETS	5 912	6 055
NON-CURRENT ASSETS		
Plant and equipment	7 960	7 300
TOTAL ASSETS	$13 872	$13 355
CURRENT LIABILITIES		
Accounts payable	$ 2 600	$ 2 730
Accrued expenses and other	75	125
TOTAL CURRENT LIABILITIES	2 675	2 855
NON-CURRENT LIABILITIES		
Fixed term loans	400	300
Mortgage payable	4 200	4 200
TOTAL LIABILITIES	7 275	7 355
EQUITY		
Share capital	3 850	3 850
Retained earnings	2 747	2 150
TOTAL EQUITY	6 597	6 000
TOTAL LIABILITIES AND EQUITY	$13 872	$13 355

Using the formulas given previously, the ratios are (industry averages are in parentheses):



		2019	2018	Industry averages
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{5\,912}{2\,675} = 2.21{:}1$	$\frac{6\,055}{2\,855} = 2.12{:}1$	(2.5:1)
Quick ratio	$\frac{\text{Cash + Marketable securities + Receivables}}{\text{Current liabilities}}$	$\frac{2\,662}{2\,675} = 1{:}1$	$\frac{2\,755}{2\,855} = 0.97{:}1$	(1.3:1)
Debt ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	$\frac{7\,275}{13\,872} =$ 0.524 or 52%	$\frac{7\,355}{13\,355} =$ 0.55 or 55%	(0.4) or 40%
Equity ratio	$\frac{\text{Total equity}}{\text{Total assets}}$	$\frac{6\,597}{13\,872} =$ 0.475 or 48%	$\frac{6\,000}{13\,355} =$ 0.449 or 45%	(0.6) or 60%
Capitalisation ratio	$\frac{\text{Total assets}}{\text{Total equity}}$	$\frac{13\,872}{6\,597} = 2.1{:}1$	$\frac{13\,355}{6\,000} = 2.23{:}1$	(2.5:1)

The company's liquidity is not convincing since, in both years, the current ratio and the quick ratio are both below the industry average. The liquidity position needs to be carefully monitored by management to assess why the ratios are below the industry averages. The trend from 2018 to 2019 is positive, but further improvement is necessary.

The financial stability ratios also are not strong. All ratios are below the industry average. As disclosed by the debt ratios, the company is relying heavily on debt financing (over 50%) of its assets in both years. This is well in excess of the policies on asset financing of the businesses in the industry, which average 40%. The equity ratios also confirm this heavier than normal reliance on debt financing. However, the trend is positive and needs to be maintained in future years. The capitalisation ratios of 2.23:1 and 2.1:1 are well below the industry average of 2.5:1.

Management needs to review its credit and financing policies and take remedial action as soon as possible, in an effort to get the company's financial position more in line with that of the industry in which it operates. If the current position is not improved, the company will have problems in the future obtaining credit and debt financing.

BUSINESS KNOWLEDGE

The role of capital structure in the market

The future of Billabong International hangs in the balance after takeover talks collapsed and it flagged lower earnings for the third time in six months, causing its share price to plunge by almost 50 per cent. Shares in the firm closed 49.5 per cent lower at 23c after a month-long trading halt was lifted, leaving the company with a market capitalisation of just $110.2 million. Billabong shares had reached a high of $14.06 in 2007. Billabong chairman Ian Pollard said refinancing would give the company a suitable capital structure and allow a continuation of its 'reform agenda'. 'It's our intention to conclude these discussions as soon as practically possible while aggressively reducing costs across all our global operations,' Mr Pollard said. Analysts said the market was concerned about whether Billabong would survive if it did not secure funding or buyers for parts of its business. 'All this is still up in the air and until that is sorted out, I don't think you can make an investment in this business,' one analyst said.

'Until the financial stability of the business is reinstated, no one is going to value the assets at the value that they are really worth.' Another analyst said it was worrying that Billabong's market capitalisation had fallen below its outstanding debt, which was reported as $152.2 million in its 2013 half-year results.

Source: Extract from Kwek, G 2013, 'Shares plunge as takeover talks aborted', ***The Age***, 5 June.

LEARNING CHECK

- ☐ Ratios used to evaluate short-term liquidity include the current ratio and quick or acid test ratio, and these compare current liabilities with the amount of current or very liquid assets available to discharge the liabilities when they fall due.
- ☐ Ratios used to evaluate long-term liquidity include the debt ratio, equity ratio and capitalisation ratio, which all look at the gearing/leverage of the entity and how assets have been financed.

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DISCUSSION QUESTIONS

1. ‘Classification of liabilities is based on the same principles as the classification of assets.’ Do you agree with this? Why or why not?
2. ‘Classification of liabilities as current or non-current is not that important. The money is paid out eventually anyway, so what’s the big deal?’ Discuss.
3. ‘The accounting treatment for a provision and a contingent liability is the same.’ Discuss.
4. ‘Employees often fail to appreciate the true cost of their employment.’ Discuss.
5. Your accounting lecturer remarked: ‘The journal entries necessary to record the expense and liability in accounting for long-service leave can be easily and logically derived. However, deciding when to record such entries and the dollar amount involved is problematic.’ Discuss.
6. With reference to the ***Conceptual Framework***, explain why future warranty costs should be recognised as a liability in the balance sheet/statement of financial position in the current period.
7. A family company, which had been operating successfully for five generations, continues to maintain a policy of raising money only through equity finance and never through debt. Discuss the advantages and disadvantages of adopting this policy. Would you recommend a continuation of this policy?
8. If a company is regarded as solvent, then it can be concluded that the company has no liquidity problems. Discuss.
9. A company issues debentures at 10%, the market rate at that time. What effect would an interest rate rise have?
10. ‘GST Payable should be treated as a revenue account for the entity.’ Discuss.
11. The debt ratio is the inverse of the equity ratio. If the company increases its level of leveraging what will be the effect on the equity ratio?
12. What is leasing? Why might an organisation decide to lease an asset rather than purchase it?

EXERCISES

Exercise 16.1 CLASSIFICATION OF LIABILITIES LO 4

How would each of the following liabilities be classified (current, non-current, or both) at the end of the financial year?

Unearned revenue
Accrued expenses
Provision for warranty repair costs
10-year debentures (after 5 years)
Mortgage loan (15-year)
Annual leave payable
Provision for long-service leave
Bills payable
GST payable
Accounts payable (trade)
Dividend payable
10-year debentures (after 9½ years)

Exercise 16.2 CLASSIFICATION OF LIABILITIES LO 3

Classify each of following items as a contingent liability, a provision or neither.

An unresolved lawsuit against the entity for copyright infringement.
Allowance for doubtful debts.
An arrangement to pay a bonus to salespersons for achieving sales over $50 000.
Refurbishment costs of a machine that will need refurbishment in two years.
An agreement to act as guarantor for another firm’s borrowings.

Environmental damage that an entity has undertaken to repair.
1000 12% debentures issued at $100.
A warranty provided at time of purchase that the manufacturer undertakes to repair items that fail within 12 months.

Exercise 16.3 RECORDING AND PAYING GST **LO 5**

Aspire Services Ltd made the following transactions during July 2018.

2018

July 12 Credit sales GST inclusive $4840
15 Cash sales GST inclusive $1320
26 Purchased supplies on account GST inclusive $1760
30 Credit sales GST inclusive $5060
31 Paid GST due to Australian Tax Office

Required

Use the general journal to record the above transactions.

Exercise 16.4 JOURNAL ENTRIES FOR BILL FINANCING **LO 5**

The following were among transactions of Raven Industries Ltd during the financial years ending 30 June 2017 and 30 June 2018.

2017

March 1 Raven Industries Ltd discounted its own 90-day bill of exchange made out to the International Bank. The face value of the bill was $360 000 and the bill was discounted at 10% p.a.
May 30 Paid the International Bank the amount due on the bill.
June 1 Raven Industries Ltd discounted a further 60-day bill, made out to Gold Bank for $150 000at a discount rate of 8% p.a.
July 31 Raven Industries Ltd honoured its bill drawn on Gold Bank.

Required

Record in general journal form all the above transactions, including any end-of-period adjustments required at 30 June 2017.

Exercise 16.5 ANNUAL LEAVE PAYABLE **LO 5**

At 30 June 2018, the accountant for Braxton Brewery, Sue Robertson, is preparing the financial statements for the year ended on that date. To calculate the annual leave payable, the accountant had gathered the following information on employee annual salary weeks leave outstanding:

Employee	**Annual salary**	**Weeks leave outstanding**
Sue Robertson	130 520	6
Jac Bunter	91 000	3
Xi Chen	71 760	3
Axel Hronky	65 000	4

Noel Kirabi	56 160	1
Jack Gilmore	50 960	5

Required

A. Calculate the annual leave payable liability for Braxton Brewery as at 30 June 2018 based on a 52-week year.
B. The balance of the annual leave payable liability before the above calculation was $5310. Show the general journal entry to record the appropriate balance in the Annual Leave Payable account.

Exercise 16.6 EMPLOYEE BENEFITS LO 5

On 21 November, the weekly payroll register of Python Ltd showed gross wages and salaries of $87 000. The organisation withheld $20 880 for income tax, $1670 for life insurance, $2500 for medical insurance premiums, and $8700 for superannuation deductions made on behalf of employees. Prior to this transaction the entity's current liabilities (extract) were:

Australian Taxation Office	$41 760
Life Insurance Payable	2 505
Health Insurance Payable	3 750
Superannuation Deductions Payable	17 400

Required

A. Prepare the general journal entry to record the payroll and payroll deductions.
B. Prepare the general journal entry to record the employer's contributions to the employees' superannuation fund at the rate of 12% of gross payroll.
C. Prepare entries in the cash payments journal to record payment of the above liabilities.

Exercise 16.7 WARRANTIES LO 5

At 30 June 2018, Ting Sun Electronics adjusted its Provision for Warranties so that it would be equal to 5% of sales for the year ended on that date. Sales for the year ended 30 June 2018 were $1 600 000 and the Provision for Warranties before the adjustment was $47 000. On 6 October 2018, a successful claim for warranty on faulty goods to the cost of $900 was made on Ting Sun Electronics.

Required

A. Prepare the general journal entry at 30 June 2018 to adjust the Provision for Warranties to the required level.
B. Record the payment of the warranty claim on 6 October 2018 in general journal format.

Exercise 16.8 ISSUE OF DEBENTURES LO 6

On 1 June, Sea Fare Enterprises received authorisation from its board of directors to issue $1 500 000 of 6% 10-year debentures dated 1 July. Interest is payable half-yearly on 31 December and 30 June each year.

Required

A. Record the issue of the debentures in general journal entry form, assuming allotment of all debentures on 1 July.
B. Record interest payments for 31 December and 30 June in the first financial year of issue.

Exercise 16.9 DEBENTURES ISSUED AT NOMINAL VALUE LO 6

The following information relates to a debentures issue of Justice Ltd dated 1 January 2017:

Date issued	1 January 2017
Nominal value	$1000

Stated interest rate	8%
Interest payment dates	30 June and 31 December
Term to maturity	8 years
Cash received from the issue	$500 000

The company’s financial year-end is 30 June.

Required

A. Prepare general journal entries to record:
   1. the issue of the debentures
   2. the 30 June and 31 December 2017 interest payments
   3. the 30 June 2018 interest payment.

B. Calculate the interest expense for the year ended 30 June 2018, and prepare the entry to close the Interest Expense account to the Profit or Loss Summary account.

C. Show how the debentures will be reported at 30 June 2018.

Exercise 16.10 MORTGAGE PAYABLE **LO 6**

Ensign Plus Ltd have recently purchased new premises in order to expand their inventory space. The cost of the premises was $1 280 000 and on 1 November they financed the purchase with a 7% loan to Hermitage Bank to be paid off over five years. Ensign paid a cash deposit of $350 000 and the agreement of the loan stipulates repayments will be $18 415 monthly. The first payment is due on 1 December. Assume interest is calculated monthly.

Required

A. Prepare a general journal entry to record the payment due on 1 December.

B. Calculate the outstanding principal after the first payment is made on 1 December.

Exercise 16.11 LIQUIDITY ANALYSIS **LO 7**

The following information has been extracted from the financial statements of Blue Hills Ltd.

	2018	**2017**
Cash at bank	$ 155 000	$ 180 000
Marketable securities	350 000	320 000
Accounts receivable	410 000	385 000
Inventory	940 000	960 000
Prepaid expenses	31 000	78 000
Plant and equipment	1 650 000	1 700 000
Accounts payable	879 000	823 500
Bills payable	53 000	49 500
Accrued expenses	6 000	3 500

Required

A. Calculate the following for 2017 and 2018:
   1. current ratio
   2. quick ratio.

B. Comment on the liquidity and trend in liquidity, given that the industry average for these ratios are: current 2.3:1 and quick 1.3:1.

Exercise 16.12 FINANCIAL STABILITY ANALYSIS **LO 7**

The following information is available for Mods Media Ltd.

	2018	2017
Selling price	$1 630 000	$1 725 000
Total liabilities	900 000	850 000
Share capital	365 000	480 000
Retained earnings	365 000	395 000

Required

A. Calculate the following ratios for 2017 and 2018:
   1. debt ratio
   2. equity ratio
   3. capitalisation ratio.

B. What do these ratios indicate about the company's gearing?

Exercise 16.13 CALCULATION OF LONG-SERVICE LEAVE LIABILITY LO 6

Latte Services Ltd has three employees. Their employment contracts entitle them to 13 weeks leave after 10 years of service. Refer to the following information about each employee at 30 June 2018:

Employee	Current salary	Years service
Nathan	70 000	2
Lucy	115 000	4
Ava	190 000	8

Assume salaries are not expected to change, and ignore the effect of inflation. The employees are committed to the organisation and do not plan to resign but will take long-service leave as soon as available. You have found out the following information on current high-quality bond interest rates:

Period to maturity	Bond rate
3 years	6%
6 years	8%
8 years	10%

Required

Calculate the value of the provision for long-service leave for Latte Services Ltd at 30 June 2018.

PROBLEMS

Basic
Moderate
Challenging

Problem 16.1 CALCULATIONS AND JOURNAL ENTRIES FOR A PAYROLL LO 5

The following information is used to calculate Cleaning Capers Ltd's payroll for the week ending 30 June 2018.

Employee	Gross pay	Salary sacrifice — donations

V. Gribben	952	20
D. Mitchell	1 240	40
F. Speight	2 180	50
P. Aiken	1 230	30

Employees' superannuation contribution is 9% of their gross pay. PAYG tax is taken out at 30% after subtracting the donations and superannuation. All employees also have the following deductions from their after-tax pay: 3.5% life insurance and 10% medical insurance.

Required

A. Calculate 'take-home' pay for each employee.
B. Prepare a general journal entry to accrue the payroll and associated deductions.
C. Prepare a cash payments journal entry to record the payment of wages.
D. Assume that, on 6 July 2018, the company forwarded cheques to cover amounts withheld from employees' wages for the month of June. Total income tax deductions were $6040. Other deduction liabilities were four times the total weekly deductions. Prepare a cash payments journal entry to record these payments.

Problem 16.2 PAYROLL TRANSACTIONS AND LIABILITIES **LO 5**

The following accounts and balances appeared in the ledger of Chafezz Accountants Ltd on 30 April 2018:

Annual Leave Payable	$23 400 Cr
Sick Leave Payable	16 640 Cr
Provision for Long-Service Leave	89 625 Cr
Taxation Office	32 210 Cr
Superannuation Fund	8 600 Cr
Medical Insurance Payable	1 480 Cr

The following transactions occurred during May and June:

May 3 Issued cheque payable to the Taxation Office in payment of employees' tax instalment deductions. Also forwarded cheques to other organisations to cover liabilities for deductions made on behalf of employees.

31 Prepared a general journal entry to record payroll for the period:

Gross wages	$78 200
Income tax instalments	19 550
Superannuation contributions	13 970
Medical insurance	1 560

Issued a cheque to cover the net amount of the monthly payroll.
Accrued long-service leave expense for May, $1000.
Accrued annual leave expense for May, $7680.
Accrued sick leave expense for May, $3690.

June 3 Issued cheque payable to Taxation Office for amount due.
Paid other deduction liabilities from May payroll.

27 Prepared journal entry to record payroll for June:

Gross wages	$80 400
Income tax instalments	21 000
Superannuation	13 510
Medical insurance	1 450

28 Drew cheque to pay fringe benefits tax instalment of $980.

30 Drew cheque to pay June wages to employees.
Accrued long-service, annual and sick leave for month (see 31 May entry above).

Required

Prepare entries in general journal form for Chafezz Accountants Ltd to record the above transactions.

Problem 16.3 PROVISION FOR WARRANTY CLAIM EXPENSES **LO 4**

Euro Classics Ltd has been operating a successful business for many years specialising in servicing and reconditioning repairs for classic European automobiles. Servicing costs $750, while reconditioning engines costs $1450. The business has a reputation for good customer service, an important feature of which is the 12 months parts and labour written warranty provided with each service.

On 30 June 2018, the owners decided to introduce the practice of providing for warranty expenses at year-end, thereby establishing a warranty expense in the year the vehicles are serviced or reconditioned, and setting up a provision to cover future warranty expenses as they occur. Past records have been examined, and it has been established that, on average, one in twenty vehicles are subject to a claim under the warranty offered. The costs of warranty have amounted to $400 for serviced vehicles and $960 for reconditioned vehicles. During the year ended 30 June 2018, 500 vehicles were serviced and 260 engines were reconditioned.

During the year ended 30 June 2019, 22 serviced vehicles and 15 reconditioned engines were repaired under the warranty. The costs of warranty work carried out by Euro Classics were all paid in cash. During the year, 680 vehicles were serviced and 240 engines were reconditioned. At 30 June 2019, it was decided that warranty costs in the following year would increase by 5%. (Ignore GST.)

Required

A. Show the general journal entries to record the services/reconditioning for the year, and to establish the Provision for Warranty at 30 June 2018.
B. Show the general journal entries to record sales and the actual warranty costs incurred during the year ended 30 June 2019.
C. Show the general journal entry to adjust the Provision for Warranty at 30 June 2019.

D. Show how the above transactions would affect the financial statements for the 2 years.

Problem 16.4 ALTERNATIVE FINANCING — SHARES VERSUS DEBENTURES LO 6

Trend Promotion Ltd, which has been trading profitably for many years, is planning to expand the business to meet the increasing demand for its services. The issue price of all shares is $2.50. It plans to invest $8 000 000 to finance this expansion, and as a result achieve an increase in profit before interest on debt and income tax of $1 600 000. A summary of financial results for the financial year ended 30 June 2018 is presented below:

Income	$13 000 000
Expenses (excluding interest and income tax)	(9 846 000)
Interest expense	(154 000)
Profit before income tax	3 000 000
Income tax (30%)	900 000
Profit	$ 2 100 000
Earnings per share	0.50

Management is considering whether to finance the expansion by selling 3 200 000 shares at $2.50 per share or by issuing 8% 10-year debentures at a nominal value of $100 each.

Required

A. Assuming that the company achieves the expected increase in profit from the expansion, what will be the earnings per share for each of the alternative methods of financing proposed?
B. Discuss the disadvantage(s) of the method that produces the highest earnings per share.
C. What other factors might be considered by management in making its decision on the preferred financing method?

Problem 16.5 MORTGAGE LOAN TO FINANCE NON-CURRENT ASSETS LO 6

Maryburn Imports Ltd has decided to purchase a new office building. It purchased land and a building for $5 250 000 on 1 December 2018. Agreed financing arrangements included payment of an initial deposit of 10% of the purchase price and the signing of a 7.5% p.a. mortgage contract which provided for quarterly payments of $168 961.88 over 10 years. The first quarterly payment was made on 1 March 2019. The company's financial year ends on 30 June.

Required

A. Prepare a quarterly payment schedule for payments made in the years ended 30 June 2019 and 2020. Head the columns with the following titles: Payment Date, Unpaid Balance at Beginning of Quarter, Cash Payment, Interest for One Quarter, Reduction in Principal, Principal Balance at End of Quarter.
B. Prepare journal entries associated with the land and building on 1 December 2018 for the financial year ended 30 June 2019. (The building was allocated 80% of the purchase price.) (Ignore GST.)

Problem 16.6 RATIOS FOR ANALYSING LIABILITIES LO 7

Several potential investors have been studying the affairs of Pelican Corporation to decide whether to invest in the company by purchasing unsecured notes which the company was proposing to issue. There was some speculation that the company was experiencing liquidity problems. The statements of financial position at 30 June 2018 and 2019 follow:

PELICAN CORPORATION
Statements of Financial Position
as at 30 June

	2019	2018
CURRENT ASSETS		

Cash at bank	$3 264	$2 832
Marketable securities	1 519	1 775
Accounts receivable (net)	1 178	930
Inventories	2 619	1 848
Other current assets	3 094	3 605
TOTAL CURRENT ASSETS	11 674	10 990
NON-CURRENT ASSETS	19 960	16 276
TOTAL ASSETS	$31 634	$27 266
CURRENT LIABILITIES		
Accounts payable	$4 880	$4 300
Bills payable	1 574	2 555
Current maturities of long-term debt	978	450
Accrued expenses	720	728
Provisions	3 420	2 345
TOTAL CURRENT LIABILITIES	11 572	10 378
NON-CURRENT LIABILITIES		
Long-term debt	5 800	4 160
Accrued expenses (payroll)	5 425	4 730
Other non-current liabilities	2 390	2 055
TOTAL NON-CURRENT LIABILITIES	13 615	10 945
TOTAL LIABILITIES	25 287	21 323
TOTAL EQUITY	6 447	5 943
TOTAL LIABILITIES AND EQUITY	$31 634	$27 266

Required

A. Calculate appropriate liquidity and financial stability ratios for the years ended 30 June 2018 and 2019. Research reveals that typical ratios in the industry for the current and quick ratios are 1.7:1 and 1.0:1 respectively. For financial stability ratios, industry averages are 2.5:1 for the capitalisation ratio and 60% for the debt ratio.

B. Comment on the liquidity and financial stability of the company, given the information available.

C. Would you, as one of the potential purchasers of the unsecured notes, lend money to the company? Explain why or why not.

Problem 16.7 JOURNAL ENTRIES FOR VARIOUS LIABILITIES **LO 5, 6**

Barrett and Taylor Ltd completed the following selected transactions during 2018 and 2019. The financial year for the company ends on 31 December. (Ignore GST.)

2018

Jan.	6	Issued a 7% 60-day promissory note to Carter Ltd in settlement of an account for $12 000 for goods supplied in the previous year.
Feb.	5	Paid Carter Ltd $6000 on the 6 January promissory note and accepted a new 10%, 30-day bill of exchange for the balance still owing.

March 7 Paid Carter Ltd for the 5 February bill.

April 23 The company paid warranty costs of $150 in cash to make good warranty conditions on a product sold in 2014. The company had an established Provision for Warranty Costs.

June 15 Issued at a discount rate of 8% its own $75 000, 30-day, non-interest bearing note, made out to the Champions Bank.

July 15 Paid the Champions Bank the amount due.

Aug. 29 The company agreed to act as guarantor for a loan of $350 000 taken out by an associated business.

Sept. 10 Purchased $13 500 worth of inventory from A.C.D. Ltd, on credit terms of 2/10, n/30.

Sept. 19 Paid A.C.D. Ltd the amount due.

Nov. 1 Issued to McCaw Merchandise a 7% 90-day bill for $12 000 in settlement of account owing.

Dec. 10 Issued at a discount rate of 9% its own $100 000 60-day bill made out to the Highland Bank.

2019

Jan. 29 Paid the Highland Bank the amount due.

Feb. 8 Paid the amount due to McCaw Merchandise for the bill issued on 10 December.

Required

Show how the above transactions, including any necessary adjusting entries on 30 June 2019, would be recorded in the general and cash journals of the company.

Problem 16.8 JOURNAL ENTRIES FOR DEBENTURE ISSUE AND MORTGAGE **LO 5, 6**

Tactix Ltd wishes to raise $2 500 000 to carry out construction work as part of a major expansion of its shopping mall operations. The directors decide to issue 10 000 $100 8% debentures, fully payable on application, with interest payable 6-monthly on 1 July and 1 January, and to borrow another $1 500 000 with a mortgage signed against other assets currently unencumbered. The terms of the mortgage loan include a deposit of $150 150, repayments of $28 680 for 60 months and an interest rate of 10% p.a.

All application money for the debentures was received on 1 April 2018 and the debentures were allotted on that date. The mortgage arrangements were finalised also on the same date.

Required

A. Prepare entries (in general journal form) to record the mortgage loan and the receipt of the application money on the debentures on 1 April 2018.
B. Prepare a loan repayment schedule for the mortgage for the first 9 months.
C. Show general journal entries to record all interest payments, and any necessary adjustments, up to 31 December 2018, assuming the end of the financial year is 30 June.

DECISION ANALYSIS

To provide or not to provide for warranties?

Laura Williams and Benji Tan have been conducting business for a few years selling high spec gaming computers. As part of its contract of sale, the business offers a 1-year labour and parts warranty on all computers. The business has recently introduced a new product line in the form of 4D gaming computers. The 1-year warranty cover was also stated on the sales invoice for these computers.

Benji had recently read an accounting text from which he learned that it would be good accounting practice to recognise, at the end of the period, a liability for future warranty costs on sales made during the period. This was justified on the basis of the definition of ‘provisions’.

Laura was a little concerned in that, although she could recognise that an obligation for future warranty costs existed at the end of the period, she had difficulty in accepting that the future costs could be reliably measured. She pointed out that this was also a requirement of accounting standards.

Benji responded that he had examined past records and was able to determine that warranty costs which were incurred in the period following the sale averaged about 3% of net sales of computers. Laura then remarked: ‘Yes, but what about our new 4D computers? We’ve only just begun to sell these. We have no way of knowing exactly what our warranty costs will be. I think we should be consistent in our approach to handling warranty costs.’

Laura and Benji decided to approach you as an accountant for your view.

Required

A. Would you support Laura in her approach to not providing for warranty costs on the 4D computers, and hence no provision at all for all products? Explain why or why not.
B. Would you support Benji in his decision to set up a provision for warranty costs on the computers? How would you justify your decision?
C. Summarise your decision on whether a provision for warranty should be recognised at period-end in Laura and Benji’s business.

SUSTAINABILITY ACCOUNTING

Recognition of liabilities

It has been argued that many companies’ profits are overstated because they fail to take into account the full cost of their operating activities. This is particularly relevant when considering the potential future environmental impact of both production and ultimate disposal of the items they manufacture. Consider the current approach to accounting for liabilities.

Required

A. What are the shortfalls of the current definition for liabilities when applied to potentially negative environmental situations?
B. How might this lead to profits being overstated?
C. Does it matter that accounting often fails to capture this information?
D. Should we change the definition of liability, and if so how?
E. What would be the broader ramifications for accounting and businesses if we were able to more accurately capture these liabilities?

COMMUNICATION AND LEADERSHIP

The road to liquidation

In recent years a number of companies have gone into liquidation (been ‘wound up’) because they have not been able to meet their liabilities when they fell due. In Australia, there are some well-publicised examples such as ABC Learning, HIH Insurance, One.Tel phone company, Australian Discount Retail and Westpoint.

Required

In groups of three or four, find (via electronic journals) an example of a listed company that has gone into liquidation in the past 5 years. Present a report to the class outlining a brief history of the company and its activities, and the events that led to the liquidation. Obtain the company’s latest annual report (your librarian should be able to help you find the best source for this) and calculate and discuss, in light of the liquidation, the company’s liquidity and financial stability ratios for the preceding 2 years. Is there any indication of financial distress in the management discussion in the annual report? Consider the usefulness of the annual report in identifying potential sources of concern about corporate survival.

ETHICS AND GOVERNANCE

Loan covenants

Sharon Rock, assistant accountant for Brady Industrial Products, was discussing the finalisation of the financial statements of the business as at 30 June 2018 with the accountant of the business, Tim O'Shea. Both agreed that everything appeared to be in order. Sharon, however, had noticed that a large loan had been taken out by the owner with Localtown Bank and that, as part of the loan agreement, Brady Industrial Products was to maintain a ratio of current assets (less inventories) to current liabilities of at least 1.2:1. The relevant figures prepared showed current assets (less inventories) standing at $1 100 000, whereas current liabilities stood at $1 000 000. Sharon raised her concerns with Tim O'Shea about not maintaining the desired minimum ratio for the purpose of the loan agreement. Tim replied: 'Yes, I can see the potential problem here. We could, I suppose, sell some inventory or put pressure on some trade debtors to pay up, but we may not have the time to get the ratio right for the bank's information. The bank will want the 30 June figures.'

Tim thought about the problem a little further and then explained: 'I have a better solution. There is a large loan of $120 000 which the business has made to the owner. This is currently classified as a non-current receivable as the loan is not due for repayment for another 14 months. This is probably close enough to be a current receivable, so let us simply reclassify the loan to the owner as a current receivable and this will overcome the potential problem with the bank's ratio requirement. I am sure the owner will agree with me on this.'

Required

A. Identify the stakeholders involved in this situation.
B. What are the main ethical issues involved?
C. What actions are available to Sharon to resolve the dilemma she faces?
D. What would you do if you were Sharon?

FINANCIAL ANALYSIS

Refer to the consolidated financial statements and notes in the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. Have the current liabilities of JB Hi-Fi Limited increased or decreased over the year? By how much? What classes of liabilities are recorded under the classification 'Current liabilities'?
2. What are the major liabilities of JB Hi-Fi Limited at the end of the financial year?
3. What items are included under the heading 'Provisions' in the 'Current liabilities' section of the statement of financial position (balance sheet)? Explain the nature of these items. Do these satisfy the definition of provisions as contained in IAS 37/AASB 137? By how much have liabilities for employee benefits increased over the year?
4. How much cash has been raised by interest-bearing loans in the most recent financial year? How much of such loans has been repaid? How do these amounts compare with the previous year?
5. Determine whether any of the non-current liabilities are secured.
6. How much of the non-current borrowings are due to be repaid within 2 years? between 2 years and 5 years? beyond 5 years?
7. Are there any non-current provisions? If so, what, in very general terms, do these represent?

Part 5

External reporting and performance evaluation

CHAPTER 17

Presentation of financial statements

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the different components of equity in a company (pp. 385–7)
- the declaration and payment of dividends on shares (pp. 395–400)
- the preparation of an internal income statement and balance sheet for a company (pp. 402–8).
- the creation and disposal of reserves (pp. 400–1).

Learning Objectives

After studying this chapter, you should be able to:

1 discuss the general reporting requirements imposed by the ***Corporations Act 2001*** and the accounting standards (pp. 718–22)

2 demonstrate the external reporting requirements for a statement of profit or loss and other comprehensive income for a company (pp. 723–5)

3 demonstrate the external reporting requirements for a statement of financial position for a company (pp. 725–7)

4 demonstrate the external reporting requirements for a statement of changes in equity for a company (pp. 727–8)

5 prepare the financial statements as required for general purpose financial reporting (pp. 729–34).

Brave new world

By focusing on its long-term value for organisations and society, integrated reporting will bring global cultural change, and business is starting to catch on.

There is a cultural shift spreading around the world. The intense focus on the financials as the prime way of explaining the progress of companies is easing. Other factors are gaining traction and the move will change the way that companies and other organisations' results are perceived. The inexorable rise of non-financial reporting and of integrated reporting is changing the balance all around the world. Integrated reporting has been described by International Integrated Reporting Council (IIRC) chairman Mervyn King as an idea whose time has come. Guy Battle, lead partner with Deloitte's sustainability services, says: 'It gives a better reflection of how businesses are being run and the value of that business to society'. The old order is changing. And it is being driven much more by companies, the corporate sector and the market in which they operate than by regulation or legislation.

In the aftermath of the financial crisis the world feels a need to understand more about what companies are doing, where their value lies and what their strategy is as they move forward into the future. 'By 2020 the reality will be that markets will be demanding integrated reporting,' says Battle, 'and by then hopefully the regulators will have caught up.'

'Golden age'

Integrated reporting has built up a head of steam. Its model of bringing together information in a connected way and showing how an organisation's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term has caught the imagination. It is what will bring about cultural change around the world.

'Non-financial reporting is entering a golden age. The brave new world of integrated reporting puts the investor, arguably the key stakeholder, at the centre,' said ACCA chief executive Helen Brand as she opened the 2013 Non-Financial Reporting Conference.

The conference was organised by Global Reporting Initiative (GRI) training partner Lodestar working with Deloitte and ACCA. Lodestar director Julie Fitzsimmons adds:

> Integrated reporting is the strategic approach that corporate reporting has been waiting for. But the key to its success is making the links with widely used reporting frameworks like the GRI so that companies can develop a seamless approach.

The global movement towards these goals was also reflected at the Amsterdam conference of the GRI in May 2013, with the unveiling of new guidelines. 'It is about creating better companies, a better market, a better world with more social justice and business managed in a responsible way,' said GRI chairman Herman Mulder. It also ties in with the aims of the Group of Friends of Paragraph 47 — the key section of the United Nations' Rio+20 summit in 2012 which called for sustainability to beat the heart of corporate reporting — while a recent ACCA report on progress stressed the importance of collaboration and the integration of sustainability into core business strategy. But it is likely to be integrated reporting that will free up existing systems and bring about cultural change. 'Financial statements no longer hold the master key to the value of a company today,' said Jonathan Labrey, communications director at the IIRC, at the Non-Financial Reporting Conference.

'Integrated reporting is breaking down the silos,' says Sallie Pilot, director of research and strategy at global reporting consultancy Black Sun. 'People are concentrating on the business issues. Companies are defining what their purpose is in society and the integrated reporting model lends itself to expressing that. We are moving towards a stakeholder model rather than just a shareholder model and it is concerned with demonstrating a right to operate. Integrated reporting is a better way of explaining these things.'

There will be two consequences of this in the years ahead: the nature and business of the finance function in companies will change, and investors will have to up their game. 'The role of the finance function is going to shift inevitably,' says Battle. 'I think integrated reporting will replace the front half of the annual report,' says Richard Martin, ACCA's head of corporate reporting.

The next step

But not everyone agrees quite what happens next. 'The finance function becomes ever more important,' says Pilot. 'Companies will need the rigour of the way in which it operates.' But they will have to change their activities. 'People will ask the question: "If we increase customer retention, what will be the likely financial effect?". It will become more important to evaluate these things,' she says. This will extend the remit of finance functions — an effect already seen where forms of integrated reporting are further down the line.

Source: Accountancy Futures 2013, 'Brave new world', August, pp. 20–1.

Chapter preview

Previously, this book has covered the details of different types of business structures and the accounting for company formation and issue of shares. Once funds have been raised through share issues, the directors of the company must then proceed with the task of fulfilling the company's objectives. The goal of most companies is to generate profits. The accounting treatment for income and expenses and the determination of profit or loss for a company is similar to those for a sole trader or a partnership. At the end of the reporting period, income and expense accounts are closed off to the Profit or Loss Summary account in the usual manner. However, an important difference arises from the fact that a company is liable to pay income tax on its final profit. Income tax is an expense in the year in which the profits are earned and companies provide for the future liability for income tax at the end of the financial year. A general journal entry is made debiting Income Tax Expense and crediting Current Tax Liability. The Income Tax Expense account is closed off to the Profit or Loss Summary, and the final balance of this account, which represents the profit, is transferred to the credit of the Retained Earnings account for appropriation by the directors.

Accumulated profits, represented by the balance in the Retained Earnings account, are used by the directors to pay dividends to the shareholders and to establish reserves. The Retained Earnings account is debited for the dividends paid or declared during the year and for any reserves set aside by the directors. Previously established reserves that are no longer required may be transferred back to the Retained Earnings account by crediting Retained Earnings and debiting the reserve account. These funds then become available for future appropriation. The year-end balance of the Retained Earnings account is included as part of the entity's equity. Hence, the major differences between the final financial statements of a company and those of a sole trader or partnership concern the accounting for income tax, dividends and reserves. Further, reporting requirements for companies are also subject to requirements of corporate legislation, accounting standards and the concept of corporate social responsibility (CSR). This chapter focuses on the presentation of financial statements for companies as required by the accounting standards and legislation.

17.1 External reporting requirements

LO 1 **Discuss the general reporting requirements imposed by the *Corporations Act 2001* and the accounting standards.**

Annual financial report

The ***Corporations Act 2001*** requires that a company prepare an **annual financial report**. This report must include the following items: a set of financial statements, notes to those financial statements, a directors' declaration, a directors' report and an annual auditor's report. The contents of the directors' declaration, directors' report and auditor's report are outlined in detail in the Corporations Act and are not discussed any further in this book.

The Corporations Act states that the financial statements to be included in the annual financial report of a company are those specified in the accounting standards. IAS 1/AASB 101 ***Presentation of Financial Statements*** defines a complete set of financial statements as:

(a) a statement of financial position as at the end of the period;
(b) a statement of profit or loss and other comprehensive income for the period;
(c) a statement of changes in equity for the period;
(d) a statement of cash flows for the period;
(e) notes, comprising a summary of significant accounting policies and other explanatory information.

The current version of the standard goes on to note that alternative titles are acceptable for these statements and therefore it is common to see the statement of financial position referred to as the 'balance sheet' and the statement of profit or loss and other comprehensive income called the 'income statement' or 'statement of comprehensive income'. The remainder of this chapter will focus on the statement of financial position, the statement of profit or loss and other comprehensive income and the statement of changes in equity. The statement of cash flows is covered in the next chapter.

As indicated above, the financial statements must include a set of notes providing additional information about the company's financial statements. The purpose of these notes is to assist users in the interpretation of the financial statements. The accounting standards provide specific detail about what should be included in the notes to the financial statements. Some examples of these disclosures include a summary of significant accounting policies and explanatory details about specific intangible assets such as patents, copyrights and so on. Together the financial statements and notes must contain all information necessary to ensure that they provide a true and fair view of the entity's performance for the reporting period and its financial position at the end of the reporting period.

In 2010, the Australian Accounting Standards Board (AASB) introduced AASB 1053 ***Application of Tiers***

of Australian Accounting Standards, also referred to as the **Reduced Disclosure Requirements**. This regime is mandatory from 2014. AASB 1053 introduces a differential reporting regime to the Australian reporting environment. Under this framework, all **disclosing entities** will be classified as either Tier 1 or Tier 2 disclosers. The disclosing entity concept is defined in the Corporations Act and most entities other than small proprietary companies are classified as disclosing entities. Designation as a disclosing entity means that the entity must prepare both annual and half yearly financial reports. However, a small proprietary company not classified as a disclosing entity may be directed to prepare an annual financial report if requested by at least 5% of its shareholders. If so, the company will have to comply with certain accounting standards unless the shareholders issue a direction specifying that the financial report does not have to comply with those standards. The shareholders of a small proprietary company may also further direct that the financial report should be audited.

AASB 1053 is intended to lessen the reporting burden on the majority of disclosing entities by introducing a second tier of reporting requirements into the Australian financial reporting framework. Under AASB 1053, only for-profit private sector entities that have **public accountability** and the Australian Government and State, Territory and Local Governments, are classified as Tier 1 entities. All other disclosing entities will be classed as Tier 2 and be exempted from providing certain information. The requirements for each tier are as follows:

1. Tier One: Australian Accounting Standards
2. Tier Two: Australian Accounting Standards — Reduced Disclose Requirements.

This provides substantial relief for Tier 2 entities in terms of compliance with their financial reporting obligations. In addition, it is expected that the Tier 2 requirements would apply to all not-for-profit private sector entities and most public sector entities (though regulators have the right to impose the application of Tier 1 requirements on the entities they regulate). Detailed discussion of the differences between Tier 1 and Tier 2 disclosure requirements is reserved for more advanced accounting courses. The remaining focus in this chapter is on the general principles of financial statement presentation and as such is applicable to all disclosing entities.

The Corporations Act clearly indicates that the overriding purpose of the annual financial report is to provide a true and fair view of the operations of the company. The AASB considers that

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'in virtually all circumstances, an entity achieves a fair presentation by compliance with Australian Accounting Standards' (CPA Accounting Handbook 2013, p. 422). Fair presentation is defined by the AASB as 'the faithful representation of the effects of transactions, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, incomes and expenses set out in the ***[Conceptual] Framework***' (CPA Accounting Handbook 2013, p. 422). These criteria have been discussed in detail in previous chapters. In situations where fair representation is not achieved by compliance with the accounting standards the entity should address this by providing additional information.

Concise report

One of the significant features of the ***Corporations Act 2001*** is that it permits concise financial reporting to a company's shareholders. Instead of providing each shareholder with a full set of financial statements and notes, the directors' report and the auditor's report, a company has the option to present a **concise report** for the financial year. This concise report consists of:

- a concise financial report drawn up in accordance with accounting standards
- the directors' report for the year
- a statement by the auditor that the financial report has been audited, and whether, in the auditor's opinion, the concise financial report complies with accounting standards
- a copy of any qualification in the auditor's report on the financial report
- a statement that the report is a concise financial report and that a full financial report and auditor's report will be sent to the shareholder free of charge if the shareholder asks for them.

Accounting standard AASB 1039 ***Concise Financial Reports*** was issued with the purpose of specifying the minimum contents of a concise financial report. According to AASB 1039, a concise financial report must include the following financial statements:

- a statement of profit or loss and other comprehensive income for the annual reporting period

- a statement of financial position as at the end of the annual reporting period
- a statement of cash flows for the annual reporting period
- a statement of changes in equity for the annual reporting period.

AASB 1039 requires that each financial statement must be presented as it is in the financial report, 'in accordance with other accounting standards, except for the omission of cross references to notes to the financial statements in the financial report' (CPA Accounting Handbook 2013, p. 1248). Although the notes themselves are not included, AASB 1039 suggests that, for entities other than listed companies, each financial statement must be accompanied by some ***discussion and analysis*** to help inform the financial statements. (Under the Corporations Act, listed companies must provide such discussion and analysis as part of the directors' report.) AASB 1039 indicates that this discussion and analysis covers such items as below:

(a) ***For the statement of profit or loss and other comprehensive income:***

- trends in revenues
- the effects of significant events on the entity's operations
- the main influences on the costs of operations
- measures of financial performance such as return on sales (profit margin), return on assets, and return on equity.

(b) ***For the statement of financial position:***

- changes in the composition of assets
- the relationship between debt and equity
- significant movements in assets, liabilities, and equity items.

(c) ***For the statement of cash flows:***

- changes in cash flows from operations
- the financing of capital expenditure programs
- the repayment and servicing of any borrowings.

(d) ***For the statement of changes in equity:***

- changes in the composition of the components of equity
- causes of significant changes in issued capital, such as rights issues, share buy-backs or capital reductions.

According to AASB 1039, in order to provide clear information to the company's shareholders, the concise financial report must also disclose (among other items):

- the amount of sales revenue recognised in accordance with IAS 18/AASB 118 ***Revenue***
- the amount of dividends paid and dividends proposed, and the expected date of payment, as well as the dividends per share
- the earnings per share
- details of any events occurring after the reporting date which do not relate to conditions existing at reporting date
- details of any changes in accounting policies or estimates which have affected the current financial statements.

AASB 1039 also requires that the concise financial report must prominently display advice that it is an extract from the financial report and that it cannot be expected to provide a full understanding of the company's financial performance, financial position, and financing and investing activities. Shareholders who wish to obtain the full financial report can request this from the entity at no cost.

Interim financial report

If an entity is a 'disclosing entity' as defined in the Corporations Act, it is required also to prepare an **interim financial report**. The interim financial report is defined in IAS 34/AASB 134 ***Interim Financial Reporting*** as either a complete set of financial statements (as described in IAS 1/AASB 101 ***Presentation of Financial Statements***) or as a set of condensed financial statements prepared for an interim period, which is specified as each half-year for a disclosing entity in Australia. However, an interim period can be any period shorter than a full reporting period, and therefore an interim financial report applies to any period shorter than the full period. A disclosing entity, which may or may not be incorporated, is an entity that has ‘enhanced disclosure’ securities. This means that a disclosing entity is one which:

- has its shares listed on the Australian Securities Exchange, or
- is raising funds pursuant to a prospectus, or
- is offering its securities as consideration for the acquisition of shares in another company under a takeover scheme, or
- is issuing shares under a compromise or scheme of arrangement, or
- is a borrowing corporation.

Disclosing entities are required to follow the requirements of IAS 34/AASB 134 in the presentation of these interim financial statements. IAS 34/AASB 134 specifies that the minimum requirement of the interim financial report must include:

- a condensed statement of financial position
- a condensed statement of profit or loss and other comprehensive income
- a condensed statement of changes in equity
- a condensed statement of cash flows
- selected explanatory notes.

General requirements for the annual report

IAS 1/AASB 101 specifies the following general requirements for the presentation of financial statements.

- Each component of the financial statements must be clearly identified and the following information must be displayed prominently:
  - the name of the entity and, if appropriate, any change in its name
  - whether the financial statements cover the individual entity or a group of entities
  - the date of the end of the reporting period or the period covered by the financial statements, whichever is appropriate
  - the presentation currency
  - the level of rounding used in presenting amounts in the financial statements.
- The financial statements must provide comparative information for the preceding reporting period. This includes comparative information for narrative and descriptive disclosures if necessary to assist in understanding the current period’s financial statements.

- If the financial statements are for a period other than 12 months, the reasons for using a different time period must be stated. The report must also state that the comparative amounts for the preceding period are not comparable because of the different lengths of reporting periods. The entity must also clearly disclose the details of the period covered.
- Notes in the annual report must be presented in a systematic manner, with appropriate cross-referencing to directly related information in the financial statements. The notes must disclose certain additional information not presented in the financial statements if relevant to a user’s understanding of the annual report. The first note to the financial statements contains information about the accounting policies adopted by the entity in preparing the statements.
- There must be consistency of presentation and classification of items in the financial statements from one period to the next, unless there has been a significant change in the entity’s operations, or a change in accounting policies is warranted to provide more relevant information.
- The entity must disclose the following, somewhere in the financial statements:
  - the domicile and legal form of the entity, its country of incorporation, the address of its registered office and principal place of business (if different)
  - a description of the entity’s operations and its principal activities
  - the name of the parent entity and ultimate parent entity, if any.
- If the entity has reclassified financial information in the financial statements, comparative information must also be reclassified, if practicable. The entity must also disclose the nature of the reclassification, amount of each item or class of items and the reason for the reclassification.

BUSINESS KNOWLEDGE

Information overload

With layer upon layer of international regulation changing the face of the finance professional's role, Shell's Paul Morshuis questions the benefits.

The 2008 financial crisis changed the world, and especially the world of business, in myriad ways. Without doubt, its most significant legacy is the explosion in the demand for corporate information. We might have seen this coming, the argument goes, if we had more information. So governments have responded, layering on the legal requirements, while the modern world of instantly available information has also played its part . . .

Paul Morshuis, vice president of accounting and reporting for the Dutch oil multinational Shell, knows better than most the true impact on finance functions of the drive for transparency. Shell is a complex, massive corporation operating in more than 70 jurisdictions and generating revenues of over US$450bn a year. The finance function employs about 10 000 people, over half of them in five shared services centres (based in Glasgow, Krakow, Chennai, Kuala Lumpur and Manila) that centrally manage key global processes: data management; expenditure; record-to-report activities; revenue; and management information and strategic analysis. A similar number of finance professionals are embedded in the business or work in specialist areas such as tax and treasury. 'This is a unique time in terms of the many things coming at us and happening around us,' says Morshuis from his office in The Hague. 'As a professional accountant I see more and more coming at me, and I'm concerned that in our eagerness to improve transparency we sometimes forget there are side effects.' Morshuis estimates that he currently spends half of his time dealing with regulatory changes — either those newly in place or planning for more to come. For a company such as Shell, which operates in a highly regulated environment, just keeping on top of the various reporting and disclosure requirements is a full-time job. The group is listed in London, Amsterdam and New York, which means it is subject to International Financial Reporting Standards (IFRS), UK, Dutch and European Union (EU) pronouncements and US Securities and Exchange Commission rules, as well as the local requirements in each country in which it operates. The result is an enormous volume of disclosure and compliance information. Shell's 2012 annual report ran to 192 pages, including around 35 pages of notes to the financial statements. Its sustainability report made up a further 44 pages, 'and that is just a fraction of the information that we must produce for internal and external consumption'.

Source: Accountancy Futures 2013, 'Information overload', August, p. 10.

LEARNING CHECK

☐ The four basic financial statements prepared by entities for external reporting purposes, in accordance with legislation and accounting standards are the statement of profit or loss and other comprehensive income, statement of financial position, statement of cash flows and statement of changes in equity.

☐ Attached to these financial statements must be a set of notes, disclosing much additional information, including information about the accounting policies adopted by the entity.

☐ In Australia, users may receive a concise financial report instead of the full annual report.

☐ Certain types of disclosing entities are also required to provide interim financial reports.

17.2 Statement of profit or loss and other comprehensive income

LO 2 **Demonstrate the external reporting requirements for a statement of profit or loss and other comprehensive income for a company.**

This section provides an introduction to the disclosure requirements for a company's statement of profit or loss and other comprehensive income. For more advanced coverage of the topic, consult the accounting standards and more advanced textbooks. Exemplar statements are also published by major accounting firms and these can be accessed via various websites.

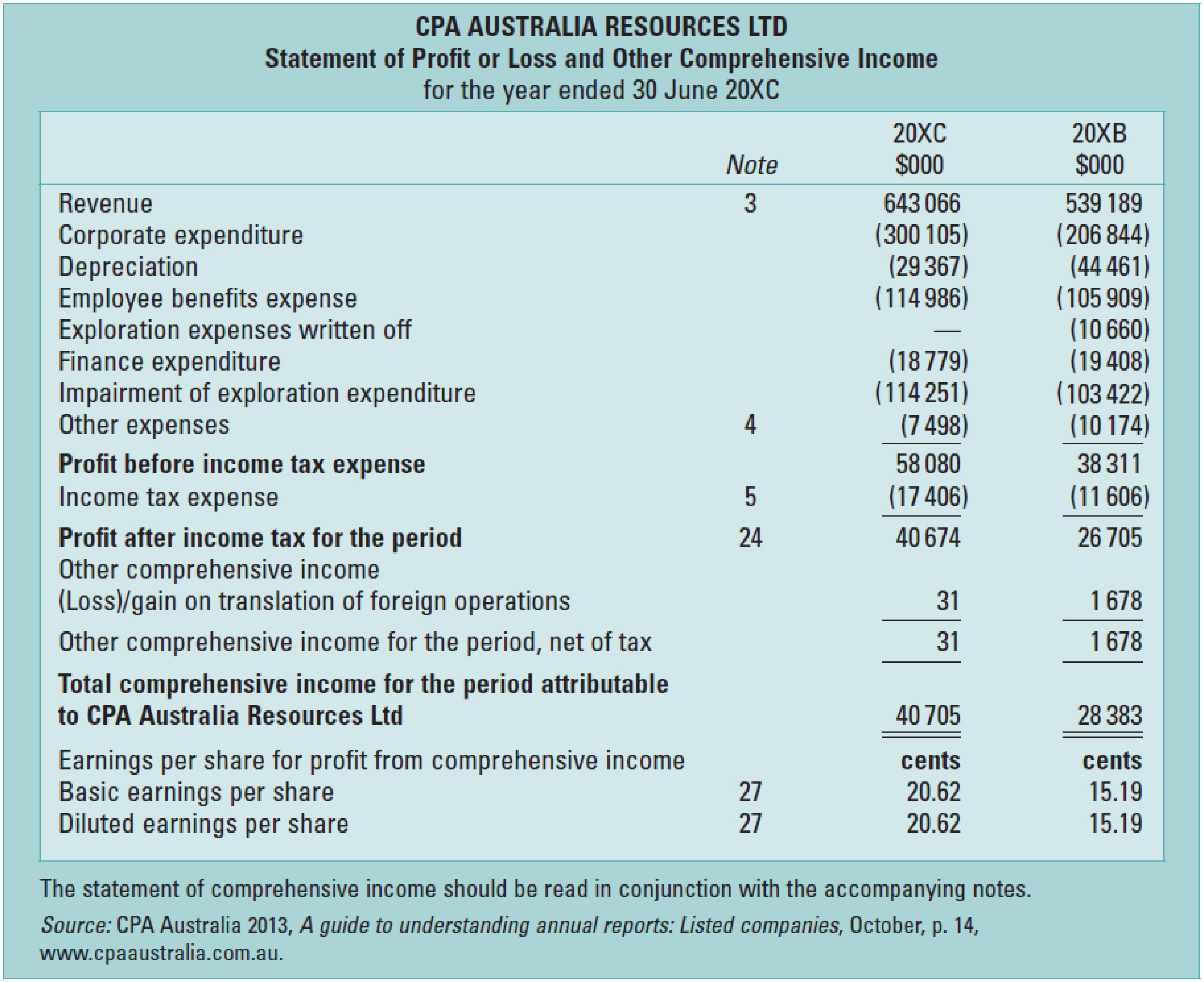
- Disclosure requirements for a company's statement of profit or loss and other comprehensive income are specified in IAS 1/AASB 101 ***Presentation of Financial Statements***. The standard defines **total comprehensive income** as 'the change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners' (AASB 101 paragraph 7). The majority of these non-owner transactions are the typical items of income and expenses (discussed in previous chapters) and are included in the calculation for profit or loss. However, IAS 1/AASB 101 acknowledges that certain transactions are excluded from the profit or loss calculation due to specifications contained in other accounting standards. Therefore, IAS 1/AASB 101 requires that such transactions must be separately reported as ***other comprehensive income*** and specifies that these items must be added to the figure of profit or loss to disclose total comprehensive income.

Typical items that are included in ***other comprehensive income*** are defined by IAS 1/AASB 101 paragraph 7 and include (the accounting treatment of these items is not covered in this chapter which is concerned with the presentation of the financial statements only):

- changes in revaluation surplus (see AASB 116 ***Property, Plant and Equipment*** and AASB 138 ***Intangible Assets***)
- actuarial gains and losses on defined benefit plans recognised in accordance with paragraph 93A of AASB 119 ***Employee Benefits***
- gains and losses arising from translating the financial statements of a foreign operation (see AASB 121 ***The Effects of Changes in Foreign Exchange Rates***);
- gains and losses on remeasuring available for sale financial assets (see AASB 139 ***Financial Instruments: Recognition and Measurement***)
- the effective position of gains and losses on hedging instruments in a cash flow hedge (see AASB 139).

Entities may choose to present the statement of profit or loss and other comprehensive income as a single statement. In this case the profit or loss section is presented first and followed immediately by a section for other comprehensive income. Alternatively, an entity may choose to present two separate statements, namely a statement of profit or loss followed by a statement of profit or loss and other comprehensive income. In this approach the second statement begins with the profit or loss figure and then displays the items for other comprehensive income. This textbook will follow the single statement presentation as demonstrated in figure 17.1.

Figure 17.1 Suggested format of statement of profit or loss and other comprehensive income to satisfy the requirements of IAS 1/AASB 101



CPA AUSTRALIA RESOURCES LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 20XC

	Note	20XC $000	20XB $000
Revenue	3	643 066	539 189
Corporate expenditure		(300 105)	(206 844)
Depreciation		(29 367)	(44 461)
Employee benefits expense		(114 986)	(105 909)
Exploration expenses written off		—	(10 660)
Finance expenditure		(18 779)	(19 408)
Impairment of exploration expenditure		(114 251)	(103 422)
Other expenses	4	(7 498)	(10 174)
Profit before income tax expense		58 080	38 311
Income tax expense	5	(17 406)	(11 606)
Profit after income tax for the period	24	40 674	26 705
Other comprehensive income			
(Loss)/gain on translation of foreign operations		31	1 678
Other comprehensive income for the period, net of tax		31	1 678
Total comprehensive income for the period attributable to CPA Australia Resources Ltd		40 705	28 383
Earnings per share for profit from comprehensive income		**cents**	**cents**
Basic earnings per share	27	20.62	15.19
Diluted earnings per share	27	20.62	15.19

The statement of comprehensive income should be read in conjunction with the accompanying notes.

Source: CPA Australia 2013, *A guide to understanding annual reports: Listed companies*, October, p. 14, www.cpaaustralia.com.au.

IAS 1/AASB 101 states that it is permissible to show aggregate figures for income and expenses on the face of the statement of profit or loss and other comprehensive income with details of the company's individual income and expenses included in notes to the statement. Alternatively, details of income and expenses can be shown on the face of the statement. However, IAS 1/AASB 101 (paragraph 82) specifically requires that the following items must be disclosed as line items: revenue, finance costs, share of the profit or loss of associates and joint ventures accounted for using the equity method, tax expense, and a single amount for the total of discontinued operations. Further, note that the income tax relating to each component of other comprehensive income must be separately disclosed (where applicable).

The requirement in IAS 1/AASB 101 (paragraph 82) to separately disclose finance costs, which should be treated as an expense in accordance with IAS 23/AASB 123 ***Borrowing Costs***, requires further discussion. The general requirement of IAS 23/AASB 123 is that borrowing costs must be recognised as an expense in the financial year in which they are incurred. However, if borrowing costs are directly attributable to the acquisition, construction or production of a 'qualifying asset', the standard states that these borrowing costs should be treated as part of the cost of that asset. Hence, in this scenario borrowing costs would not appear in the statement of profit of loss and comprehensive income.

Instead, the borrowing cost would be capitalised and would be reported in the asset section of the statement of financial position. A **qualifying asset** is defined as an asset that necessarily takes a substantial period of time, usually longer than one year, to get ready for its intended use or sale. Thus a qualifying asset may be part of the entity’s property, plant and equipment, or part of its inventories (providing these items take a considerable period of time to produce) and therefore the all-inclusive cost of the asset (including borrowing costs) would be reported in the company’s statement of financial position.

Disclosure of income and expenses

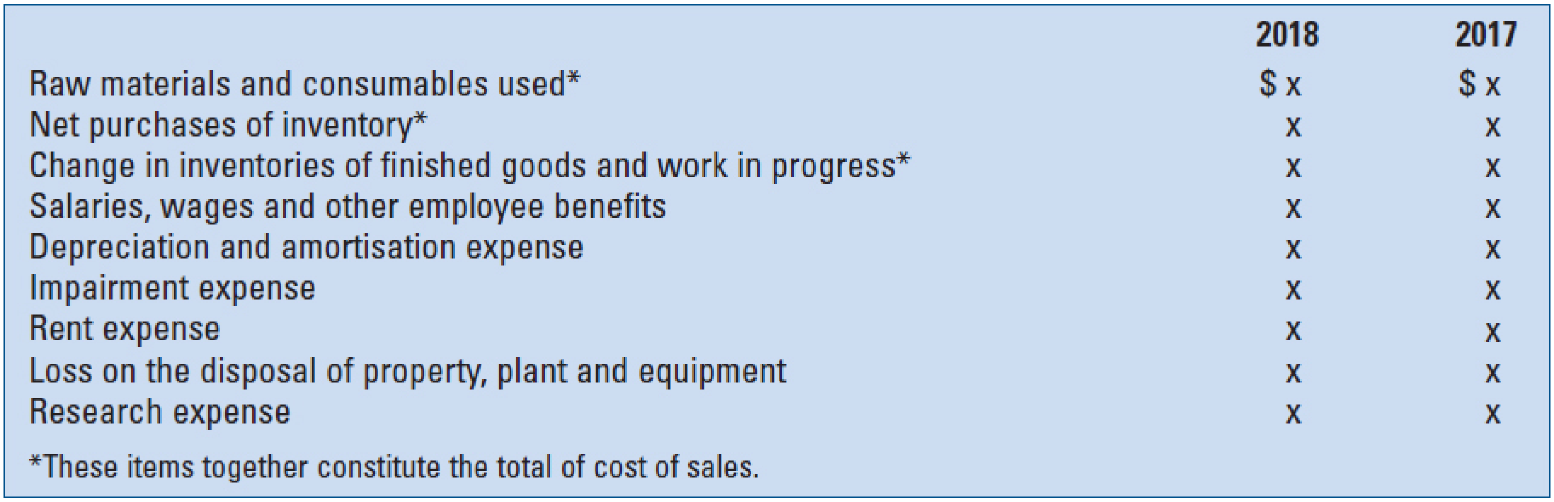
In a previous chapter, we discussed the nature of income (including revenues) as outlined in the ***Conceptual Framework*** and in IAS 18/AASB 118 ***Revenue***. Furthermore, we also discussed the alternative criteria developed for the recognition of revenue in accordance with IAS 18/AASB 118. As well as the disclosures required under IAS 1/AASB 101 entities must also comply with IAS 18/AASB 118 in regards to the disclosure of the accounting policies used for recognising revenue and the disclosure of categories of revenue. The following categories of revenue must be disclosed separately under IAS 18/AASB 118:

- the sale of goods
- the rendering of services
- interest
- royalties
- dividends
- the amount of any revenue arising from exchanges or swaps of goods and services.

In relation to expenses, their definition and recognition criteria have been discussed in detail in a previous chapter. As noted above, disclosure of individual expenses under IAS 1/AASB 101 may occur on the face of the statement of profit or loss and other comprehensive income, but it is more usual to find detailed disclosure in the notes. The standard requires each entity to present an analysis of expenses based on either the ***nature*** of the expenses or their function within the entity. AASB 101 provides guidance for this choice and indicates that entities should consider historical and industry factors as well as the nature of the entity. The decision criteria should be to select the method that provides the most relevant and reliable information.

If expenses are classified by nature, a listing of disclosed expenses may appear as shown in figure 17.2.

Figure 17.2 Classification of expenses by nature



	2018	2017
Raw materials and consumables used*	$ x	$ x
Net purchases of inventory*	x	x
Change in inventories of finished goods and work in progress*	x	x
Salaries, wages and other employee benefits	x	x
Depreciation and amortisation expense	x	x
Impairment expense	x	x
Rent expense	x	x
Loss on the disposal of property, plant and equipment	x	x
Research expense	x	x

*These items together constitute the total of cost of sales.

In this format there is no need to allocate expenses across the different functions of the entity. Thus, depreciation expense can be presented as a total amount rather than being allocated across the selling function and the administrative function.

Alternatively, ***expenses may be classified by function***, in which case they would be disclosed, for example, as in figure 17.3.

Figure 17.3 Classification of expenses by function

	2018	2017
Cost of sales	$ x	$ x
Selling and distribution expenses	x	x
Administrative expenses	x	x
Finance expenses	x	x
Other expenses	x	x

In this format all expenses need to be allocated across the different functions; for example, wages and salaries and other employee benefits must be split into those for the selling function, those for the administrative function, and so on. Note that a retail entity is expected to disclose cost of sales separately, and to use classifications such as those discussed in chapter 6.

Separate disclosure of many categories of expenses is also required by other accounting standards. For example, various standards require disclosure of expense items, such as depreciation, amortisation and impairment expenses on non-current assets, rent expense, loss on disposal of property, plant and equipment, and expenses incurred in relation to bad and doubtful debts. Therefore, entities must ensure that they comply with all the relevant accounting standards in their disclosures relating to expenses.

LEARNING CHECK

☐ There is no required format for presenting a statement of profit or loss and other comprehensive income in general purpose financial statements. Nevertheless, the standards do provide suggested formats.

☐ Income and expenses may be disclosed on the face of the statement of profit or loss and other comprehensive income or in detailed notes.

☐ Major categories of revenue to be disclosed are listed in IAS 18/AASB 118.

☐ Expenses may be classified by nature or by function, whichever provides the more relevant information.

17.3 Statement of financial position

LO 3 **Demonstrate the external reporting requirements for a statement of financial position for a company.**

This section presents an introduction to the disclosure requirements for a company's statement of financial position. Coverage of detailed notes to the statement is provided in more advanced texts. Accounting firms also commonly provide exemplar presentations of financial statements and these can be accessed via various accounting websites.

IAS 1/AASB 101 does not mandate a prescribed format for the statement of financial position. The standard requires that all assets and liabilities in the statement be classified either as current

or non-current, unless a liquidity presentation is more appropriate to provide relevant and reliable information. Under the standard an entity must classify an asset as current when it satisfies one of the following conditions:

(a) it expects to realise the asset, or intends to sell or consume it, in its normal operating cycle;

(b) it holds the asset primarily for the purpose of trading;

(c) its expects to realise the asset within twelve months after the reporting period; or

(d) the asset is cash or a cash equivalent (as defined in AASB 107) unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

Assets which do not fit the above criteria are required to be classified as non-current. A similar requirement is imposed for the classification of current and non-current liabilities:

(a) it expects to settle the liability in its normal operating cycle;

(b) it holds the liability primarily for the purpose of trading;

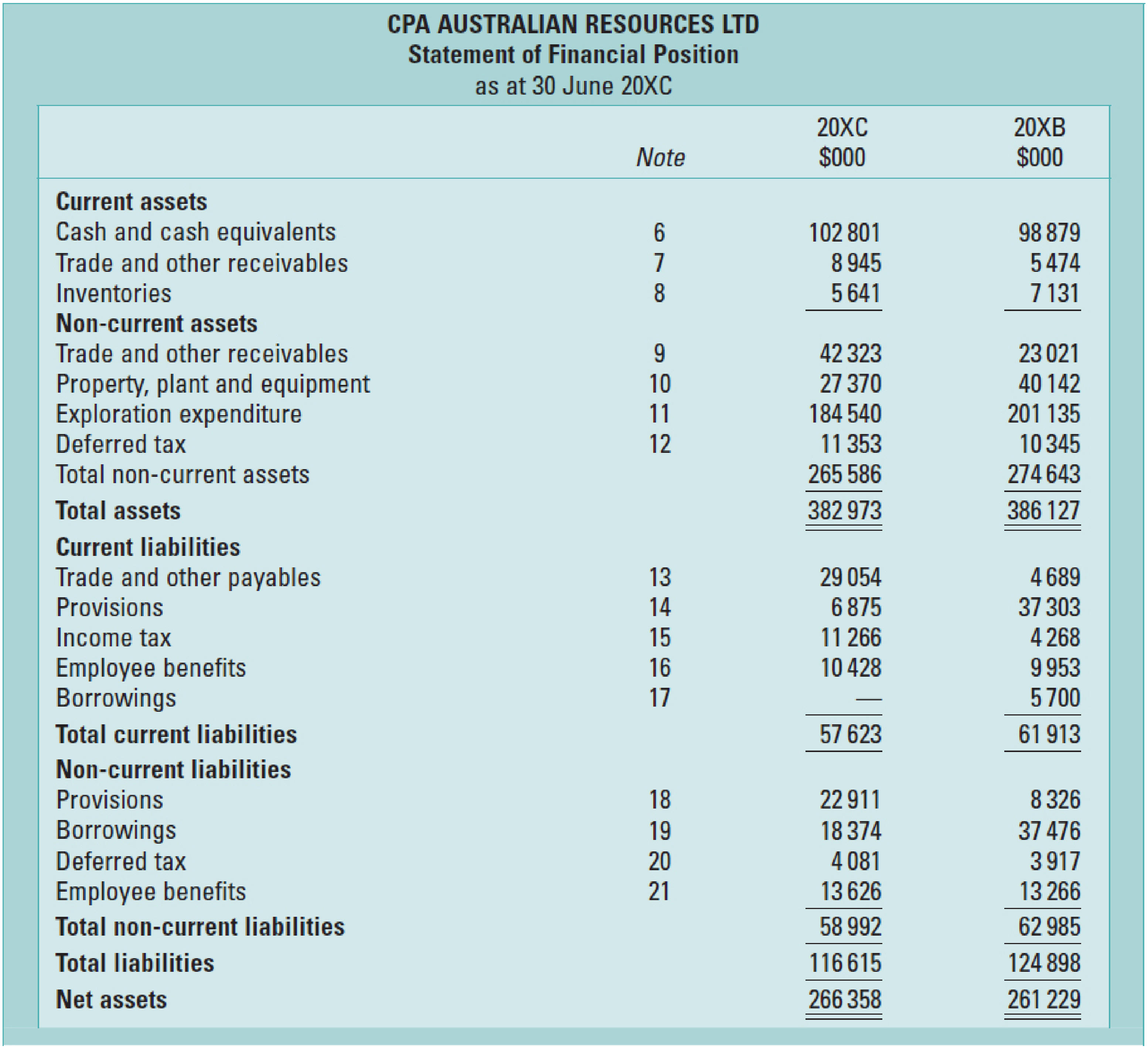
(c) the liability is due to be settled within twelve months after the reporting period; or

(d) it does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

All other liabilities should be classified as non-current.

IAS 1/AASB 101 specifies minimum disclosures of certain asset and liability categories and subcategories. For detailed examples refer to the Implementation Guidance on IAS 1 (this is an accompaniment to IAS 1/AASB 101 but does not form part of the standard) which is provided to assist in properly satisfying these disclosure requirements. Figure 17.4 provides an example of a statement of financial position to present a visual demonstration of the types of disclosure required. In this book, the current/non-current classification is used for all exercises and problems, unless a liquidity presentation is specifically requested.

Figure 17.4 Current/non-current format of statement of financial position to satisfy requirements of IAS 1/AASB 101



CPA AUSTRALIAN RESOURCES LTD
Statement of Financial Position
as at 30 June 20XC

	Note	20XC $000	20XB $000
Current assets			
Cash and cash equivalents	6	102 801	98 879
Trade and other receivables	7	8 945	5 474
Inventories	8	5 641	7 131
Non-current assets			
Trade and other receivables	9	42 323	23 021
Property, plant and equipment	10	27 370	40 142
Exploration expenditure	11	184 540	201 135
Deferred tax	12	11 353	10 345
Total non-current assets		265 586	274 643
Total assets		382 973	386 127
Current liabilities			
Trade and other payables	13	29 054	4 689
Provisions	14	6 875	37 303
Income tax	15	11 266	4 268
Employee benefits	16	10 428	9 953
Borrowings	17	—	5 700
Total current liabilities		57 623	61 913
Non-current liabilities			
Provisions	18	22 911	8 326
Borrowings	19	18 374	37 476
Deferred tax	20	4 081	3 917
Employee benefits	21	13 626	13 266
Total non-current liabilities		58 992	62 985
Total liabilities		116 615	124 898
Net assets		266 358	261 229

	Note	20XC $000	20XB $000
Equity			
Contributed equity	22	223 610	223 274
Reserves	23	5 500	5 469
Retained profits	24	37 248	32 486
Total equity		266 358	261 229

The statement of financial position should be read in conjunction with the accompanying notes.

Source: CPA Australia 2013, *A guide to understanding annual reports: Listed companies*, October, p. 15, www.cpaaustralia.com.au.

A few observations about preparing a statement of financial position follow.

- In presenting the statement of financial position for a particular company, it is helpful if the headings and subheadings are followed to the extent that the items exist in the company under consideration. Additional subheadings can be provided; for example, a subheading for biological assets or for development costs capitalised, depending on the disclosure policies of the company concerned. Various items may also require additional disclosures to be made in the notes as a result of the application of other accounting standards. These requirements are not covered in this chapter.
- Details of appropriation items, such as transfers to or from reserves and dividends declared or paid, do not appear on the face of either the statement of profit or loss and other comprehensive income or the statement of financial position. Hence, there is no obvious connection between the two statements for external disclosure purposes. Instead, these transactions are captured by movements in the Retained Earnings account, which are shown in the statement of changes in equity as discussed in the next section.
- An entity's statement of financial position presents the accounting equation in one form or another, for instance:

  Assets − Liabilities = Equity

  or

  Assets = Liabilities + Equity

Note that there is no requirement in IAS 1/AASB 101 to begin the statement of financial position with the asset section. The statement could begin with equity and show an alternative representation of the accounting equation:

Equity = Assets − Liabilities

LEARNING CHECK

☐ There is no required format for presenting a statement of financial position in the general purpose financial statements. Nevertheless, the accounting standards illustrate a suggested format.

☐ IAS 1/AASB 101 requires an entity to adopt either a current/non-current presentation or a liquidity presentation.

☐ Details of assets, liabilities and equity are provided in appropriate notes to the statement of financial position.

17.4 Statement of changes in equity

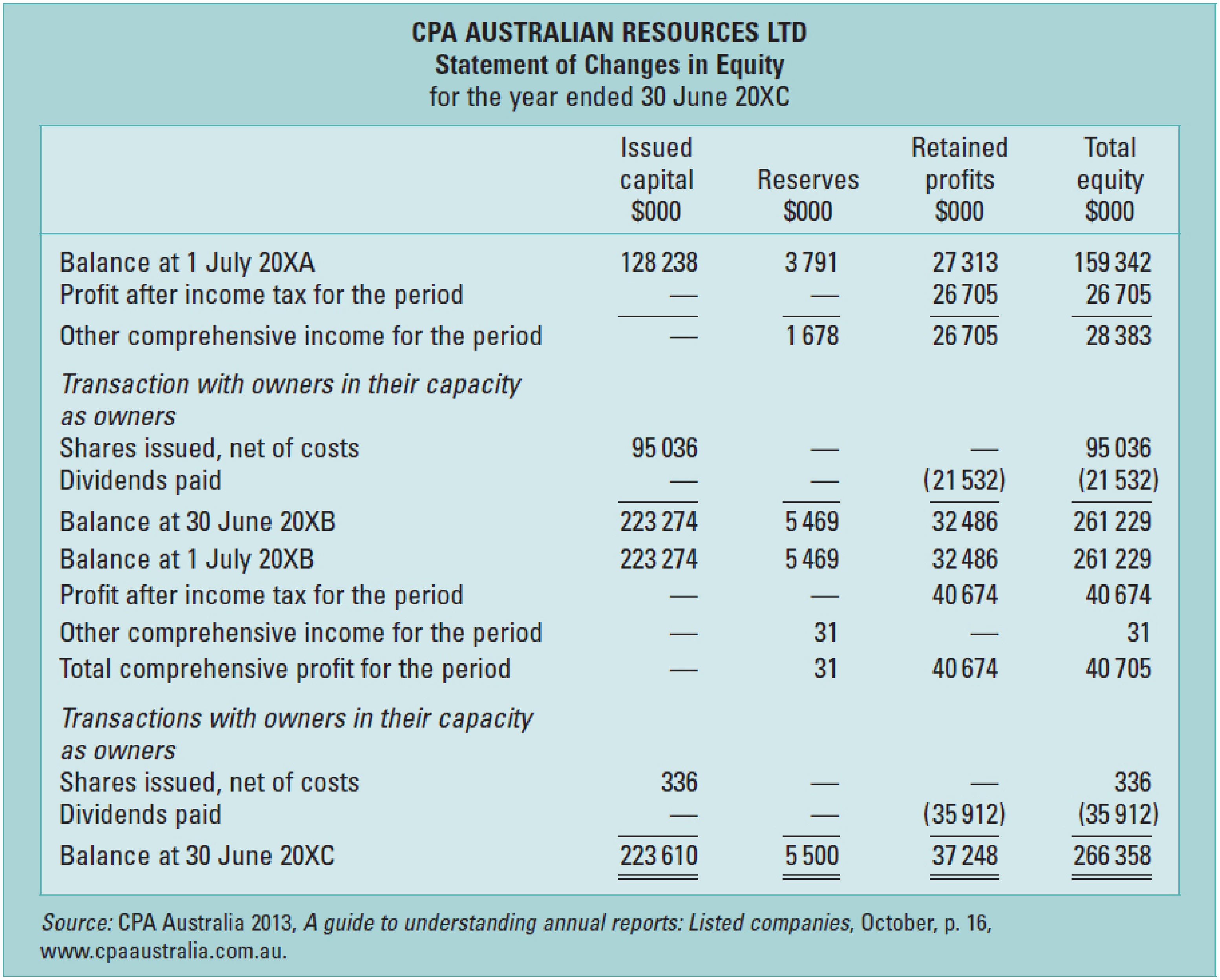
LO 4 **Demonstrate the external reporting requirements for a statement of changes in equity for a company.**

IAS 1/AASB 101 requires each entity to include a statement of changes in equity in its financial statements. The statement of changes in equity displays the changes in each major equity item during the annual reporting period. The statement must disclose:

- **(a)** the total comprehensive income for the reporting period
- **(b)** for each component of equity, reconciliation between the carrying amount at the beginning and the end of the period, separately disclosing changes resulting from:
  - **(i)** profit or loss
  - **(ii)** other comprehensive income
  - **(iii)** transactions with owners in their capacity as owners.

A suggested format for a simple statement of changes in equity is presented in figure 17.5.

Figure 17.5 Statement of changes in equity



CPA AUSTRALIAN RESOURCES LTD
Statement of Changes in Equity
for the year ended 30 June 20XC

	Issued capital $000	Reserves $000	Retained profits $000	Total equity $000
Balance at 1 July 20XA	128 238	3 791	27 313	159 342
Profit after income tax for the period	—	—	26 705	26 705
Other comprehensive income for the period	—	1 678	26 705	28 383
Transaction with owners in their capacity as owners				
Shares issued, net of costs	95 036	—	—	95 036
Dividends paid	—	—	(21 532)	(21 532)
Balance at 30 June 20XB	223 274	5 469	32 486	261 229
Balance at 1 July 20XB	223 274	5 469	32 486	261 229
Profit after income tax for the period	—	—	40 674	40 674
Other comprehensive income for the period	—	31	—	31
Total comprehensive profit for the period	—	31	40 674	40 705
Transactions with owners in their capacity as owners				
Shares issued, net of costs	336	—	—	336
Dividends paid	—	—	(35 912)	(35 912)
Balance at 30 June 20XC	223 610	5 500	37 248	266 358

Source: CPA Australia 2013, *A guide to understanding annual reports: Listed companies*, October, p. 16, www.cpaaustralia.com.au.

It is useful to carefully review the relationship between the statement of changes in equity with the two preceding statements. From the illustrative statements above note the balance of retained earnings in the statement of financial position at 20XB. The balance of $32 486 000 is the beginning balance for the current year. This is also reported in the statement of changes in equity. Note that the current period profit as reported in the statement of profit or loss and other comprehensive income is added to the beginning retained earnings balance in the statement of changes in equity. Dividends paid are deducted from retained earnings in the statement of changes in equity — this transaction does not appear elsewhere in the financial statements. The ending balance of $37 248 000 is reported in the statement of changes in equity and also displayed in the statement of financial position. A similar process occurs in the treatment of other comprehensive income. The statement of profit or loss and other comprehensive income reports a $31 000 gain on translation of foreign operations. This is transferred to the reserves in the statement of changes in equity. Therefore, the reserves account in this statement represents the opening balance plus or minus any transactions that affect the reserve accounts. The closing balance of the reserve accounts is shown in the statement of changes in equity as well as the statement of financial position. It is useful to remember that most items of income and expense are reported in the statement of profit or loss and included in the calculation of profit. This is then transferred to the retained earnings via the statement of changes in equity. However, for particular cases (as noted above) IAS 1/AASB 101 requires that some transactions be separately identified as other comprehensive income and reported as such. These transactions are also transferred to the various equity accounts via the statement of changes in equity. Hence, the statement of changes in equity is an important tool in tracking the effect of transactions reported in the statement of profit or loss and other comprehensive income. This statement also assists in understanding the way the outcome of these transactions is reflected in the statement of financial position.

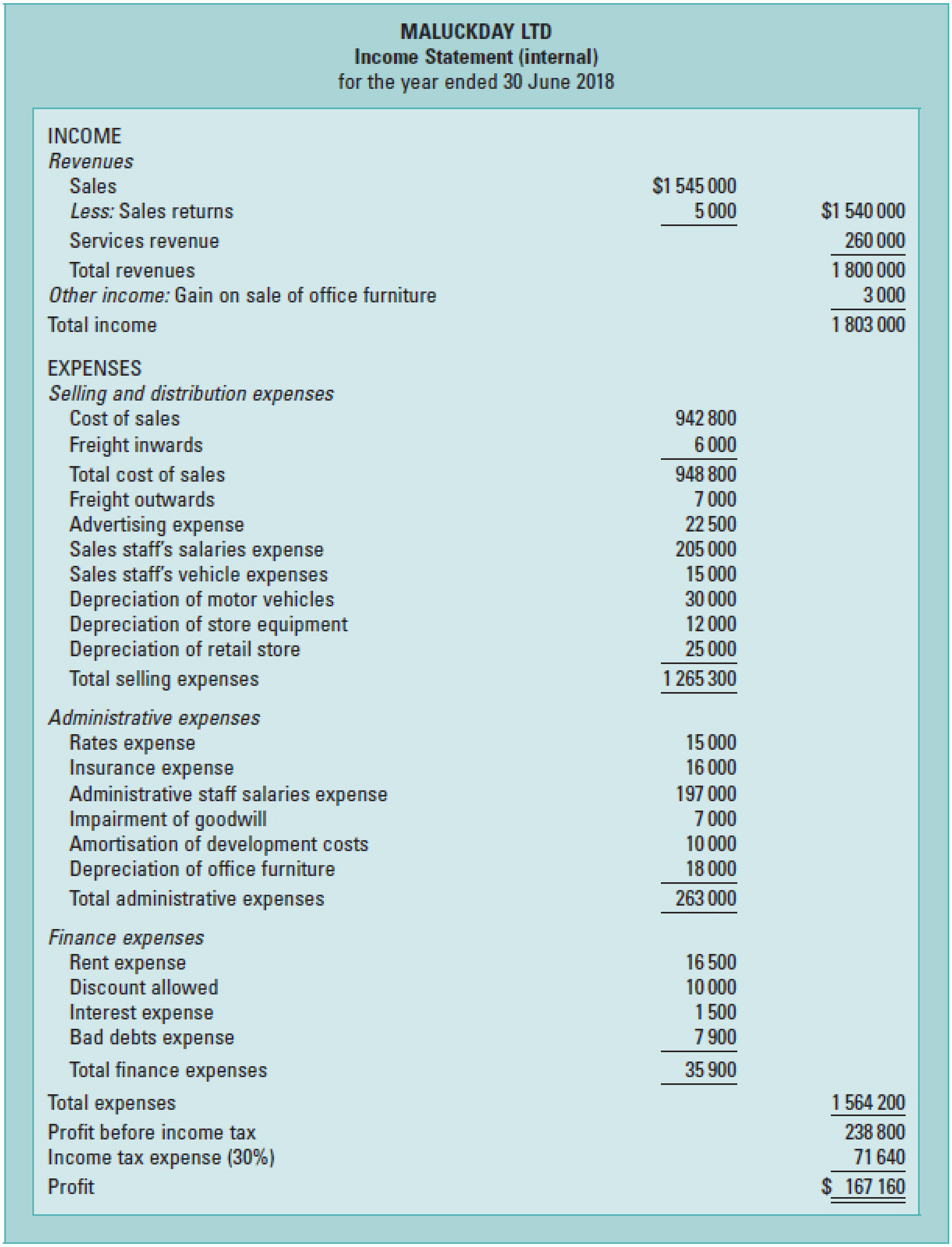
17.5 Demonstration problem

LO 5 **Prepare the financial statements as required for general purpose financial reporting.**

In addition to carefully reviewing the demonstration problem below, it may be helpful to refer to the generic examples of the financial statements that can be found in the Australian Implementation Guidance that accompanies IAS 1/AASB 101. This document can be downloaded from the AASB website for further reference.

The internal financial statements of Maluckday Ltd are shown in figures 17.6 and 17.7. Expenses are classified according to function; that is, selling and distribution, administrative and finance. Note that cost of sales is classified as a selling expense in figure 17.6, but does not have to be, as per figure 17.3.

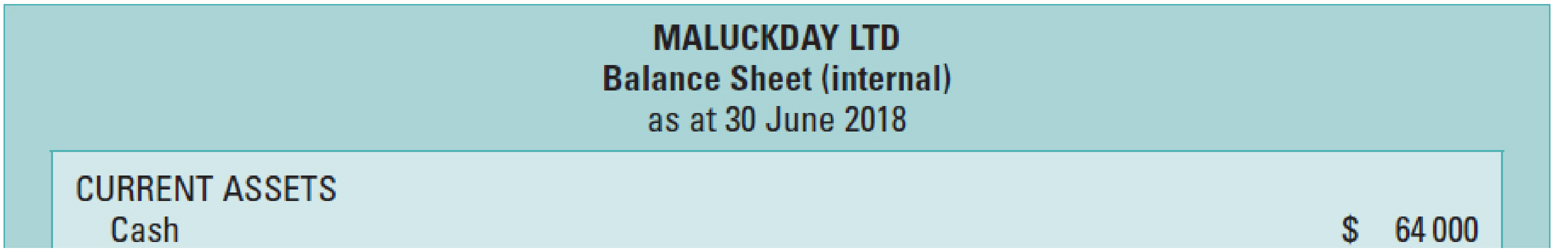
Figure 17.6 Internal income statement for Maluckday Ltd



MALUCKDAY LTD
Income Statement (internal)
for the year ended 30 June 2018

INCOME		
Revenues		
Sales	$1 545 000	
Less: Sales returns	5 000	$1 540 000
Services revenue		260 000
Total revenues		1 800 000
Other income: Gain on sale of office furniture		3 000
Total income		1 803 000
EXPENSES		
Selling and distribution expenses		
Cost of sales	942 800	
Freight inwards	6 000	
Total cost of sales	948 800	
Freight outwards	7 000	
Advertising expense	22 500	
Sales staff's salaries expense	205 000	
Sales staff's vehicle expenses	15 000	
Depreciation of motor vehicles	30 000	
Depreciation of store equipment	12 000	
Depreciation of retail store	25 000	
Total selling expenses	1 265 300	
Administrative expenses		
Rates expense	15 000	
Insurance expense	16 000	
Administrative staff salaries expense	197 000	
Impairment of goodwill	7 000	
Amortisation of development costs	10 000	
Depreciation of office furniture	18 000	
Total administrative expenses	263 000	
Finance expenses		
Rent expense	16 500	
Discount allowed	10 000	
Interest expense	1 500	
Bad debts expense	7 900	
Total finance expenses	35 900	
Total expenses		1 564 200
Profit before income tax		238 800
Income tax expense (30%)		71 640
Profit		$ 167 160

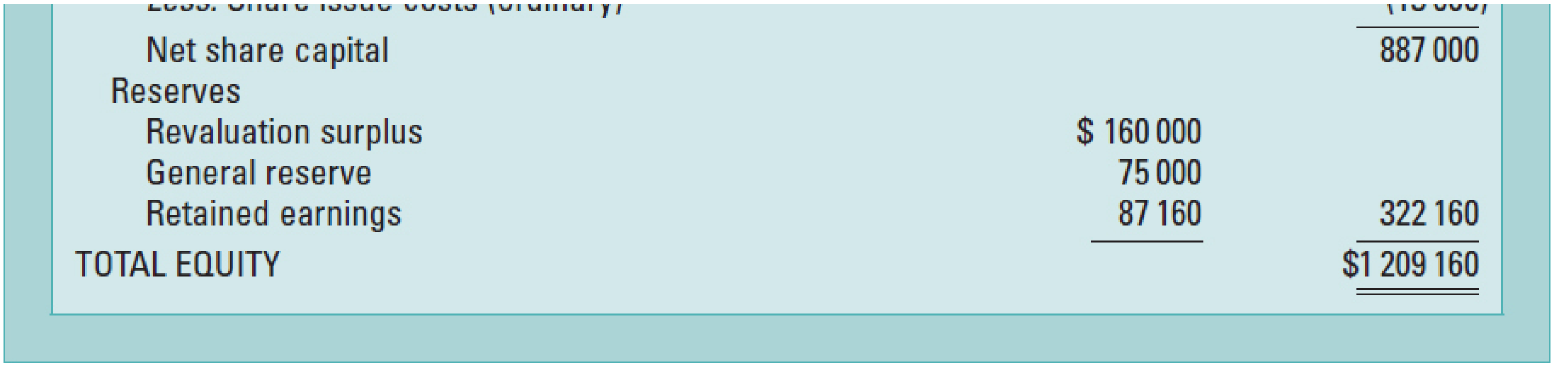
Figure 17.7 Internal balance sheet for Maluckday Ltd



MALUCKDAY LTD
Balance Sheet (internal)
as at 30 June 2018

CURRENT ASSETS	
Cash	$ 64 000

Accounts receivable	$ 218 000	
Allowance for doubtful debts	(10 900)	207 100
Inventory		250 000
Prepaid insurance		4 000
Prepaid rent		2 000
TOTAL CURRENT ASSETS		527 100
NON-CURRENT ASSETS		
Land (at cost)		100 000
Retail store (at fair value)		435 000
Motor vehicles (at cost)	300 000	
Accumulated depreciation	(180 000)	120 000
Store equipment (at cost)	60 000	
Accumulated depreciation	(27 000)	33 000
Office furniture (at cost)	90 000	
Accumulated depreciation	(38 000)	52 000
Goodwill (at cost)	140 000	
Accumulated impairment losses	(7 000)	133 000
Development costs	100 000	
Accumulated amortisation	(10 000)	90 000
TOTAL NON-CURRENT ASSETS		963 000
TOTAL ASSETS		1 490 100
CURRENT LIABILITIES		
Accounts payable		60 000
Salaries payable		9 000
Interest payable		300
Current tax liability		71 640
GST payable [collections less outlays]		8 000
Ordinary dividend payable		80 000
Preference dividend payable		40 000
TOTAL CURRENT LIABILITIES		268 940
NON-CURRENT LIABILITIES		
Loan payable		12 000
TOTAL NON-CURRENT LIABILITIES		12 000
TOTAL LIABILITIES		280 940
NET ASSETS		$1 209 160
EQUITY		
Share capital		
40 000 ordinary shares issued and paid to $1		$ 400 000
50 000 preference shares issued and paid to $1		500 000
		900 000
Less: Share issue costs (ordinary)		(13 000)



Net share capital		887 000
Reserves		
Revaluation surplus	$ 160 000	
General reserve	75 000	
Retained earnings	87 160	322 160
TOTAL EQUITY		$1 209 160

Additional information

(a) Assume that Maluckday Ltd had revalued its retail store upwards by $60 000, resulting in an increase in the revaluation surplus during the current period.

(b) Assume that there were no interim dividends paid during the year, and that $15 000 was transferred to the general reserve from retained earnings.

(c) Assume that 50c per share was received as a payment for a call on all ordinary shares during the year.

(d) Assume that $3000 of the loan payable is due within 12 months.

(e) Beginning finished goods inventory was $244 000.

Required

A. Prepare a statement of profit or loss and other comprehensive income, statement of financial position and the statement of changes in equity as required by IAS 1/AASB 101 in the annual financial report for Maluckday Ltd, following the formats used in figures 17.1, 17.4 and 17.5 respectively.

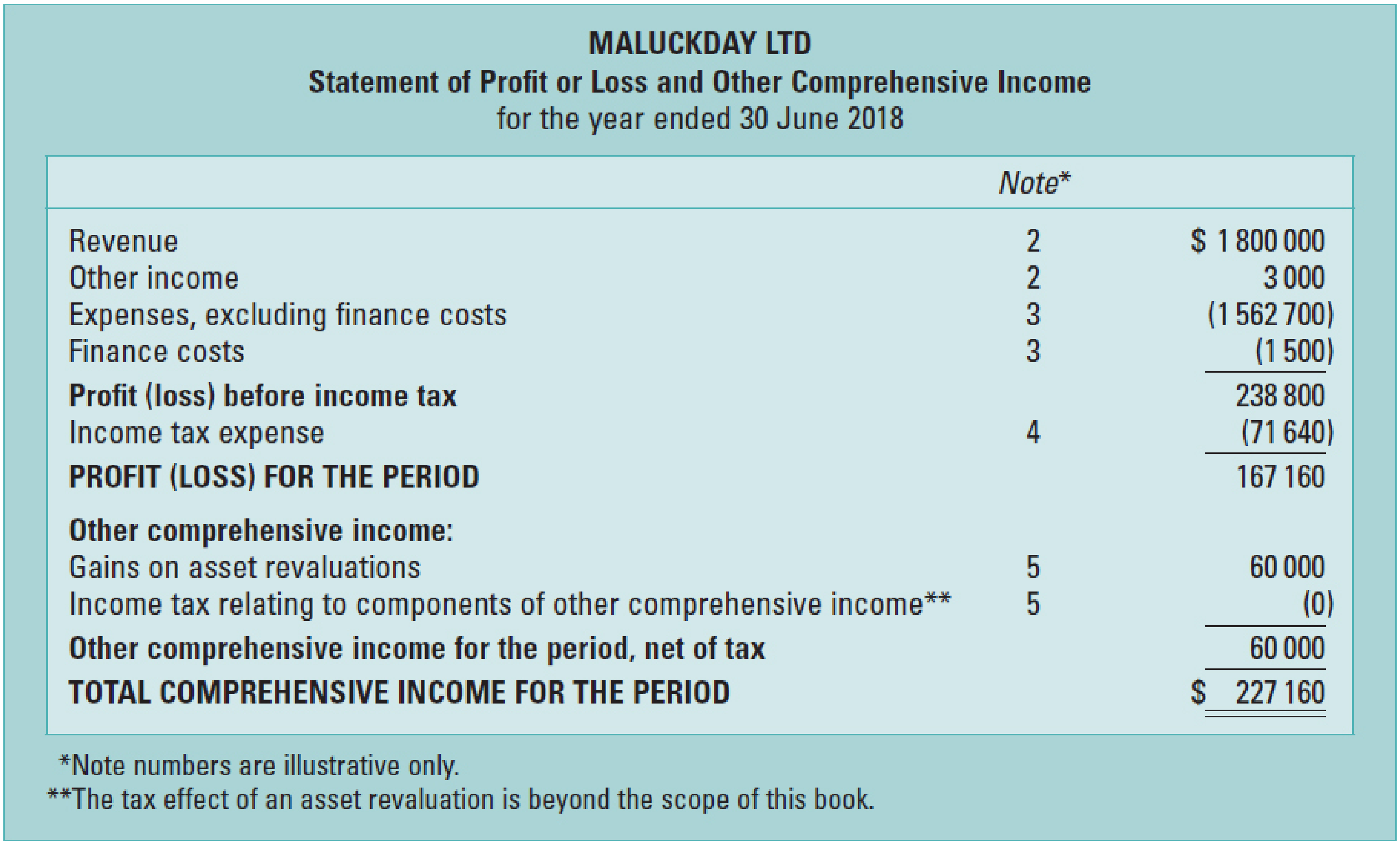
B. Prepare a note showing expenses classified by nature, assuming that the beginning balance of inventory was $244 000.

Solution

A. Figure 17.8 illustrates the statement of profit or loss and other comprehensive income, figure 17.9 (p. 732) illustrates the statement of financial position, and figure 17.10 (p. 732) illustrates the statement of changes in equity for Maluckday Ltd. Note the following points:

1. A fully compliant statement would require comparative figures to be provided.
2. Expenses excluding finance costs equal total expenses of $1 564 200 less interest expense of $1500.
3. GST payable is treated as part of payables, not current tax liabilities, in the statement of financial position. UIG Interpretation 1031 states that the net amount of GST recoverable from, or payable to, the taxation authority shall be included as part of receivables or payables in the statement of financial position. Salaries, interest and dividends are also treated as payables.
4. Property, plant and equipment includes land, retail store, motor vehicles and store and office equipment.
5. Many additional note disclosures would be required for income, expenses, assets, liabilities and equity, but these are beyond the scope of this book.

Figure 17.8 Statement of profit or loss and other comprehensive income for Maluckday Ltd for external reporting purposes



MALUCKDAY LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2018

	*Note**	
Revenue	2	$ 1 800 000
Other income	2	3 000
Expenses, excluding finance costs	3	(1 562 700)
Finance costs	3	(1 500)
Profit (loss) before income tax		238 800
Income tax expense	4	(71 640)
PROFIT (LOSS) FOR THE PERIOD		167 160
Other comprehensive income:		
Gains on asset revaluations	5	60 000
Income tax relating to components of other comprehensive income**	5	(0)
Other comprehensive income for the period, net of tax		60 000
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		$ 227 160

*Note numbers are illustrative only.
**The tax effect of an asset revaluation is beyond the scope of this book.

Figure 17.9 Statement of Financial Position for Maluckday Ltd for external reporting purposes

MALUCKDAY LTD
Statement of Financial Position
as at 30 June 2018

	Note	
ASSETS		
Non-current assets		
Property, plant and equipment	6	$ 740 000
Goodwill	7	133 000
Other intangible assets	8	90 000
		963 000
Current assets		
Inventories	9	250 000
Trade receivables	10	207 100
Other current assets	11	6 000
Cash and cash equivalents	12	64 000
		527 100
Total assets		$1 490 100
EQUITY AND LIABILITIES		
Equity		
Share capital	13	$ 887 000
Retained earnings		87 160
Other components of equity	14	235 000
Total equity		1 209 160
Non-current liabilities		
Long-term borrowings	15	9 000
Total non-current liabilities		9 000
Current liabilities		
Trade and other payables	16	197 300
Current portion of long-term borrowings	17	3 000
Current tax payable	18	71 640
Total current liabilities		271 940
Total liabilities		280 940
Total equity and liabilities		$1 490 100

Figure 17.10 Statement of changes in equity for Maluckday Ltd

MALUCKDAY LTD
Statement of Changes in Equity
for the year ended 30 June 2018

	Share capital	Retained earnings	Revaluation surplus	General reserve	Total equity
Balance at 30 June 2017*	$700 000	$ 55 000	$100 000	$60 000	$ 915 000
Changes in equity for the year					
Issue of share capital	200 000				200 000
Share issue costs	(13 000)				(13 000)
Dividends		(120 000)			(120 000)
Total comprehensive income for the year		167 160	60 000		227 160
Transfer to general reserve		(15 000)		15 000	
Balance at 30 June 2018	$887 000	$ 87 160	$160 000	$75 000	$1 209 160

*These amounts are found by working backwards from the final balances in the question.

B. A suitable note prepared by the company to classify expenses ***by nature*** is as shown in figure 17.11.
Expenses classified by function have appeared in the internal income statement shown in figure 17.6, although several of these expenses do not need to be disclosed separately. For example, in the selling and distribution expenses, depreciation on motor vehicles, store equipment and retail store can be added together and shown as one amount.

Figure 17.11 Classification of expenses by nature

Note 3: Expenses (excluding finance costs) classified by nature

Net purchases of inventory	$ 954 800
Increase in inventories of finished goods*	(6 000)
Salaries, wages and other employee benefits**	402 000
Depreciation and amortisation expense[†]	95 000
Impairment expense	7 000
Rent expense	16 500
Bad debts expense	7 900
Other[‡]	85 500
Total expenses excluding finance costs	$1 562 700

*This is calculated by deducting the change in value of inventory during the period ($250 000 – $244 000 = $6000) from the total of cost of sales $948 800.

**The sum of sales staff salaries and administrative staff salaries.

[†] The sum of depreciation on motor vehicles, store equipment, retail store, office furniture and amortisation of development costs.

[‡] The sum of freight outwards, advertising, rates, insurance and discount allowed.

BUSINESS KNOWLEDGE

Australia's water accounting system singled out — but will today's liquid measures leave enough water for the future?

Australia's general purpose water accounting system was recently singled out in the fourth edition of the UN's World Water Development Report for its sophistication in supporting crucial decision-making concerning the world's most precious resource.

Just as importantly, the system is being used by a number of national and international organisations to measure the use and quality of water.

General purpose water account reports (GPWARs) look like general purpose financial reports, but with volumetric rather than financial measurement, and a focus on water rather than other assets and liabilities...

Australia is the driest inhabited continent and one of the highest per capita users of water in the world so the equitable distribution of the nation's water is a subject of constant debate among communities, irrigators, businesses, environmental groups and politicians.

Just as financial reporting developed internally in the absence of accounting standards and auditing was at one stage voluntary, general purpose water accounting is evolving.

'For now the preparation of water accounting reports is voluntary and assurance of those water accounting reports is voluntary, but I imagine that over time it may become mandated and a legal requirement for some organisations or jurisdictions if there is sufficient demand from users and regulators,' Godfrey says...

Unlike in financial reporting where numerous standards deal with a range of different issues, the WASB aims to keep the number of water accounting standards small. Of course demand may determine otherwise.

Godfrey says the approach has been to be very principle-based in the first standard, to avoid getting down to fine detail in setting rules-based standards for small issues and to remove professional judgement.

'The principles in the first standard cover a range of concepts to avoid having to set a large suite of water accounting standards. My hope is we will never have a huge volume of water accounting standards because the principles enunciated in a small number are sufficient to decide reporting in a host of contexts,' Godfrey says.

'The difficulty is that if you start getting into too much detail you start guiding how every individual type of transaction, transformation or event should be reported and possibly miss out on something. Also it takes away from the professionalism of preparing the report and allowing discretion. Most people apply that discretion with integrity.'

As concerns about the use and quality of water grow, so too will the demand for a systematic process of identifying, recognising, quantifying, reporting and assuring both information and the obligations around the delivery of water rights or other claims to water.

Source: Extracts from Brown, B, 2013, 'Australia's water accounting system singled out', ***InTheBlack***, 12 September.

LEARNING CHECK

☐ The statement of profit or loss and other comprehensive income and the statement of financial position prepared for external reporting purposes summarise much of the information contained in the internal financial statements.

☐ The statement of changes in equity shows detailed movements in all equity accounts.

☐ The note providing information on expenses classified by nature requires a rearrangement of the data in the internal income statement (figure 17.6).

KEY TERMS

Annual financial report, p. 718

Concise report, p. 720
Disclosing entity, p. 719
Interim financial report, p. 721
Public accountability, p. 719
Qualifying asset, p. 724
Reduced Disclosure Requirements, p. 719
Total comprehensive income, p. 723

DISCUSSION QUESTIONS

1. What items must be included in an entity's annual financial report?
2. A financial report must include 'comparative figures'. What does this mean, and can a company change these comparative figures in the following year? Discuss.
3. What is meant by the all-inclusive concept of profit? Does IAS 1/AASB 101 ***Presentation of Financial Statements*** follow this concept in presenting a statement of profit or loss and other comprehensive income? Explain.
4. Comment on why you think the accounting standards now require entities to separately disclose other comprehensive income.
5. What is the purpose of a statement of changes in equity? What is the connection between this statement and the other two financial statements discussed in this chapter?
6. Why do you think the AASB has introduced the reduced disclosure requirements for some entities?
7. Given that disclosing entities are required to comply with the accounting standards, why are the figures in financial statements sometimes disputed?
8. According to AASB 1039, in order to provide clear information to shareholders, the concise financial report must disclose which of the following?
    - **(a)** Gross profit
    - **(b)** Dividends per share
    - **(c)** Earnings per share
    - **(d)** Sales revenue
    - **(e)** Changes in accounting policies
9. For each of the following items state which financial statement it would appear in:
    - **(a)** Property, plant and equipment
    - **(b)** Retained earnings
    - **(c)** Gains on property revaluation
    - **(d)** Cost of sales
    - **(e)** Issue of share capital.
10. Are there any circumstances in which borrowing costs are permitted to be excluded from the statement of profit or loss and other comprehensive income? Explain.

EXERCISES

Exercise 17.1 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME AND STATEMENT OF CHANGES IN EQUITY LO 2, 4

Determine whether the following transactions would appear in the statement of profit or loss and other comprehensive income. If so explain how they would be disclosed.

- **(a)** A gain on foreign currency translation of $83 000.
- **(b)** As a result of a fall in share prices in a recession, directors decided to write down the value of the company's investment, Shares in Pluto Ltd, by $80 000.

- **(c)** Loss from discontinued business operations.
- **(d)** Dividend paid of $1 500 000 in total.
- **(e)** Inventory costing $120 000 is sold for $160 000.

(f) A transfer of $500 000 is made to general reserve from retained earnings.

Exercise 17.2 RESERVES, DIVIDENDS, STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME, STATEMENT OF CHANGES IN EQUITY

LO 2, 4

The following information relates to Dunadeal Ltd at 30 June 2019:

Share capital	
100 000 10% cumulative preference shares issued at $1 each	$ 100 000
200 000 ordinary shares issued at $1 each	200 000
General reserve (balance 1 July 2018)	55 000
Retained earnings (balance 1 July 2018)	50 000
Revenue	1 550 000
Profit before income tax (and items listed below)	190 000
Interest expense	23 000
Paid damages on lawsuit	50 000
Gain on sale of property, plant and equipment	105 000

Additional information

During the year ended 30 June 2019:

(a) Directors declared and paid dividends of 5% on the preference shares and 10c per share interim on ordinary shares.

(b) Assume the tax rate is 30% for estimating income tax expense.

Required

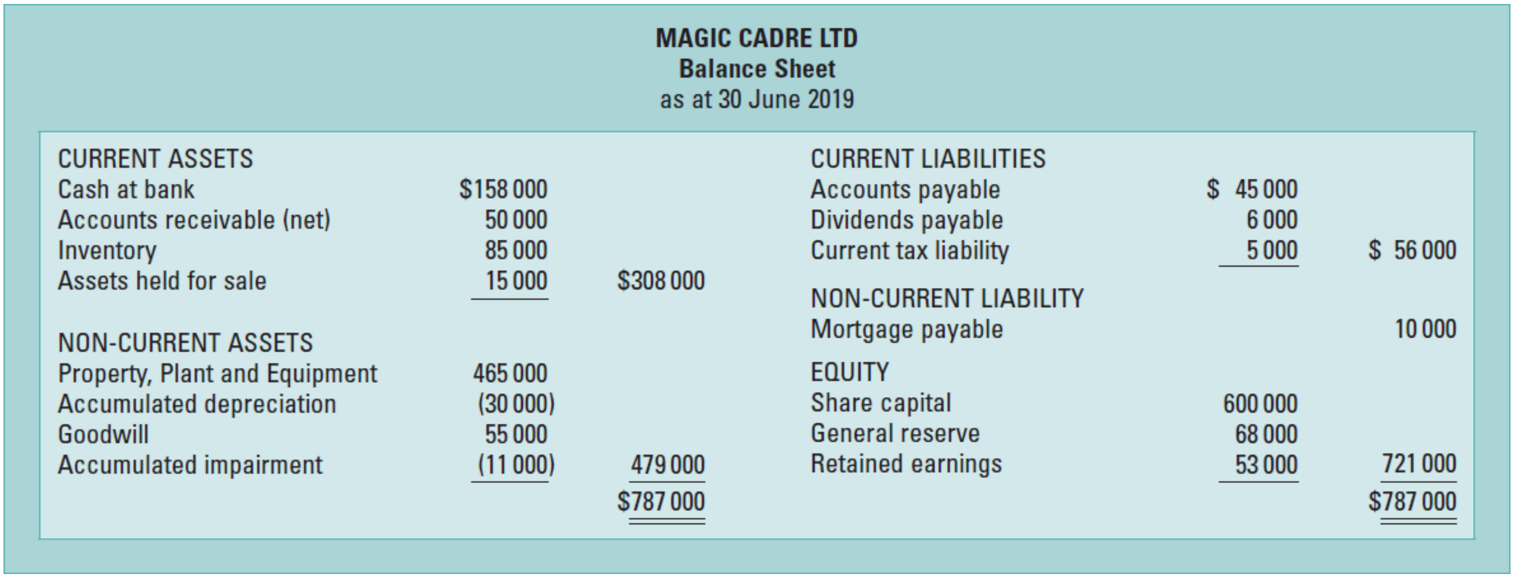
A. Prepare a statement of profit or loss and other comprehensive income for the year ended 30 June 2019 in accordance with current accounting standards.

B. Prepare a statement of changes in equity for Dunadeal Ltd for the year ended 30 June 2019.

Exercise 17.3 STATEMENT OF FINANCIAL POSITION

LO 3

The summarised balance sheet of Magic Cadre Ltd at 30 June 2019 for presentation to management is:



MAGIC CADRE LTD
Balance Sheet
as at 30 June 2019

CURRENT ASSETS			CURRENT LIABILITIES		
Cash at bank	$158 000		Accounts payable	$ 45 000	
Accounts receivable (net)	50 000		Dividends payable	6 000	
Inventory	85 000		Current tax liability	5 000	$ 56 000
Assets held for sale	15 000	$308 000			
			NON-CURRENT LIABILITY		
			Mortgage payable		10 000
NON-CURRENT ASSETS			EQUITY		
Property, Plant and Equipment	465 000		Share capital	600 000	
Accumulated depreciation	(30 000)		General reserve	68 000	
Goodwill	55 000				
Accumulated impairment	(11 000)	479 000	Retained earnings	53 000	721 000
		$787 000			$787 000

Required

Prepare the statement of financial position for external reporting purposes of Magic Cadre Ltd at 30 June 2019 in accordance with the format illustrated in figure 17.4.

Exercise 17.4 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME, INCOME AND EXPENSES CLASSIFIED BY FUNCTION

LO 2

The following information was obtained for Lisa’s Fashionista Ltd for the year ended 30 June 2019:

Administrative expenses	$ 400
Cost of sales	000
Dividends declared	1 760 000
Gain on asset revaluation	200 000
Gain on sale of machinery	80 000
Income tax expense for current year	120 000
Losses on investments in equity	440 000
instruments	8 000
Net sales revenue	3 600 000
Retained earnings (1/7/18)	240 000
Selling and distribution expenses	500 000
Uninsured flood loss	40 000

Required

A. Prepare a statement of profit or loss and other comprehensive income for Lisa’s Fashionita Ltd for the year ended 30 June 2019 so as to comply with the requirements of IAS 1/AASB 101.
B. Prepare an appropriate note for the disclosure of income.
C. Prepare an appropriate note for expenses classified by function.

Exercise 17.5 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME AND RETAINED EARNINGS ACCOUNT

LO 2, 4

The information below relates to Treasure Cove Ltd for the year ended 30 June 2019.

Required

Prepare a statement of profit or loss and other comprehensive income for external reporting and prepare the Retained Earnings T account for the year ended 30 June 2019.

1. Profit before tax	$ 435
(This figure is before adjustments for points 4 and 5 are	000
made.)	
2. Retained earnings 1 July 2018	26 250
3. Revenues for the year	1 920 000
4. Interest expense	68 500
5. Impairment of goodwill	23 000
6. Transfer to general reserve	7 500
7. Estimated income tax expense for year ended 30 June 2019	103 500
8. Interim dividend paid	
Preference	24 000
Ordinary	30 000
9. Final dividend declared	
Preference	24 000
Ordinary	60 000

Exercise 17.6 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME AND NOTE FOR INCOME

LO 2

The ledger of Elena’s Crystals Ltd at 30 June 2018 contained the following information:

Sales revenue	$1 500 000
Gain on revaluation of building (not	50 000
sold)	55 000
Interest revenue	30 000
Donations received	650 000
Cost of sales	120 000
Selling and distribution expenses	150 000
Administrative expenses	30 000
Finance expenses	

(The finance expenses included $12 000 interest expense.)

Assume a tax rate of 30%.

You discover the following additional information, not reflected in the figures.

1. No tax expense has yet been accounted for. Donations received are tax exempt.
2. One division of business for the company had been discontinued on 1 June 2018. The assets associated with this division were sold for $1 000 000, at a loss of $75 000 before income tax.
3. On 6 January 2018, certain items of company property were resumed by the government for upgrading of the interstate highway, which ran past the company's warehouse. The government paid sufficient compensation for the company to realise a $100 000 before-tax profit on the deal.

Required

A. Prepare a statement of profit or loss and other comprehensive income for the year ended 30 June 2018 to comply with the requirements of IAS 1/AASB 101.
B. Prepare an appropriate note for income in order to comply with accounting standards.

Exercise 17.7 DIVIDENDS AND STATEMENT OF CHANGES IN EQUITY **LO 4**

On 1 July 2018, the equity of Terravista Ltd was as follows:

600 000 ordinary shares issued at $2.20	$1 320 000
General reserve	50 000
Retained earnings	500 000

During the year ended 30 June 2019, the following events affecting the company's equity occurred:

2018		
Aug.	1	Declared and paid a cash dividend of 20c per share.
Oct.	1	Announced a share split of 4 shares for every 1 share held. This was eventually carried out on 5 October.
2019		
Jan.	3	Declared and paid an interim cash dividend of 5c per share.
June	30	Declared a final dividend of 8c per share. Profit (after tax) was determined to be $300 000. Transferred $10 000 to the general reserve.

Required

A. Prepare journal entries (in general journal format) for the listed transactions and events for Terravista Ltd for the year ended 30 June 2019.
B. Prepare a statement of changes in equity for the year ended 30 June 2019 to comply with IAS 1/AASB 101.

Exercise 17.8 DIVIDENDS **LO 1, 4**

The equity of Instrumental Issues Ltd at 30 June 2018 is as follows:

Equity	
10% preference shares, cumulative and participating, issued at $5	$1 000 000
170 000 ordinary shares, fully paid	1 020 000
Revaluation surplus	300 000
Retained earnings	650 000
	$2 900 000

Required

Based on the above information, answer the following questions.

1. What is the issue price per share of the ordinary shares?
2. If the directors decide to declare a final dividend of 40c per share on the ordinary shares, what journal entry would be necessary on 30 June 2018, assuming no ratification of the dividend is required by

shareholders?

3. If the total dividend to be paid on all shares is to equal $400 000, how much money would be paid to the preference shareholders and to the ordinary shareholders assuming (independent scenarios)?
   (a) There are no accumulated dividends owing to preference shares and the preference shares are entitled to participate in additional dividends once the ordinary shareholders have received 30c per share.

   (b) There is 1 year of dividends in arrears on the preference shares and the preference shares are entitled to participate in additional dividends once the ordinary shareholders have received 30c per share.
4. What are the necessary journal entries to provide for the dividends in questions 3(a) and (b) respectively?
5. Assume that the market price of each ordinary share is currently $8. If a bonus dividend is to be provided out of the revaluation surplus to ordinary shareholders on the basis of 1 share for every 5 shares held, what is the journal entry required on 30 June 2018?
6. Assuming the existence of items in questions 3(a) and 5 and no other changes to issued capital for the year, and that the balance of retained earnings at the beginning of the year was $450 000, prepare a statement of changes in equity for the year ended 30 June 2018 for external reporting purposes to comply with current accounting standards.

Exercise 17.9 RESERVES, DIVIDENDS, STATEMENT OF CHANGES IN EQUITY LO 4

The following was obtained from the ledger of Valediction Ltd as at 30 June 2018:

Share capital	
100 000 ordinary shares paid to 75c, but issued for $1	$75 000
60 000 10% preference shares fully paid at $1	60 000
Calls in advance	1 000
General reserve	20 000
Retained earnings 1/7/17	16 000
Profit for year (before tax)	55 000
Interim dividend paid on ordinary shares (1/1/18)	8 000

End-of-year adjustments

1. Income tax expense of $15 400 is to be recognised. The company pays tax in one instalment annually.
2. Declare a dividend on the preference shares for the current year.
3. Declare a final dividend on ordinary shares of $3000. No ratification is required at the annual meeting.
4. Transfer $5000 from the general reserve to retained earnings.

Required

Prepare a statement of changes in equity for Valediction Ltd for the year ended 30 June 2018.

Exercise 17.10 GENERAL JOURNAL, STATEMENT OF CHANGES IN EQUITY LO 4

The following information relating to the year ending 30 June 2019 for Megathink Ltd has been obtained from the company's records.

General reserve	$ 6 000
Goodwill	10 000
Income tax expense	48 000
Interim dividends paid	20 000
Profit for year before further adjustments and income tax	175 000
Retained earnings (1/7/18)	20 000
Revaluation surplus	20 000
Share capital — 50 000 ordinary shares issued at $1	50 000

There were no shares issued during the year. The revaluation surplus related only to a block of land that had been previously revalued to a fair value of $120 000 from a cost of $100 000. It is now fair valued at $70 000.

On 30 June 2019, the directors decided to:

1. declare a final dividend payment of 8c per share — this dividend does not have to be ratified by the annual meeting
2. write off goodwill
3. increase general reserve by $10 000.

Required

A. Record the above adjustments in the general journal.
B. Prepare a statement of changes in equity complying with IAS 1/AASB 101 (ignore comparatives).

Exercise 17.11 DIVIDENDS, EQUITY SECTION OF STATEMENT OF FINANCIAL POSITION

LO 1, 4

The equity of Kenselmac Ltd at 14 February 2018 consisted of:

Share capital	
800 000 shares (fully paid for $2)	$1 600 000
600 000 shares (paid to $1, issued at $2)	600 000
General reserve	100 000
Plant replacement reserve	50 000
Retained earnings	125 000

The following events occurred during 2018:

Feb. 15 Interim dividend of 10c per share declared and paid.

April 2 Final call made on the 600 000 partly paid shares.

May 30 All call money received.

June 30 Profit before tax for the year was $700 000 out of which the following adjustments were made (if appropriate):

- **(a)** Income tax expense was determined as $250 000.
- **(b)** Final dividend of 5c per share on all issued shares was recommended.
- **(c)** Transfers to reserves: General reserve $40 000
  Plant replacement reserve $30 000
- **(d)** Directors revalued the company's properties by $300 000.

Aug. 15 Shareholders approved the final dividend and a 1-for-5 bonus issue of shares at a price of $1 per share to be satisfied out of the surplus arising from revaluation of properties.

Aug. 16 Payment of final dividend and allotment of bonus shares.

Required

A. Prepare general journal entries for the above transactions.
B. Show the Retained Earnings account up to 31 August 2018.
C. Show the equity section of the statement of financial position as at 31 August 2018.

PROBLEMS

Basic
Moderate
Challenging

Problem 17.1 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

LO 2

RUSCELLO LTD
Income Statement (Internal)
for period ended 30 June 2019

Income			$8 000 500
Interest on investments			123 000
			8 123 500
Less: Selling expenses			
Advertising	$ 250 000		
Sales salaries	1 750 000		
Commissions	308 000	$2 308 000	
Less: Administrative expenses			
Rates	16 800		
Insurance	135 000		
Administrative expenses	2 840 000		
Other administrative expenses	612 600	3 604 400	
Less: Finance expenses			
Interest expense	1 087 000	1 087 000	6 999 400
Profit before income tax			1 124 100
Less: Income tax expense			337 230
Profit			$ 786 870

In addition to the above information assume that Ruscello Ltd revalued its land and buildings upward by $80 000 resulting in an increase in its revaluation surplus. There was nil tax effect from this revaluation.

Required

Prepare a statement of profit or loss and other comprehensive income for Ruscello Ltd in accordance with the requirements of IAS 1/AASB 101.

Problem 17.2 STATEMENT OF CHANGES IN EQUITY **LO 4**

The following information relating to Mount Athos Ltd has been obtained from the balance sheet as at 30 June 2018.

Share capital	$1 600 000
General reserve	492 000
Retained earnings	880 000

In addition to the above, it is noted that during the year ended 30 June 2019:

(a) 100 000 shares were issued at $1.50 per share

(b) comprehensive income after taxation was $631 000

(c) an interim dividend of $128 000 was paid together with a final dividend of $175 000

(d) $85 000 was transferred from the retained earnings account to the general reserve.

Required

Prepare a statement of changes in equity for Mount Athos Ltd for the reporting period ended 30 June 2019.

Problem 17.3 RESERVES, DIVIDENDS, STATEMENT OF profit or loss and other COMPREHENSIVE INCOME, STATEMENT OF CHANGES IN EQUITY **LO 2, 4**

The equity of Fiorente Ltd at 30 June 2018 was:

Share capital	
500 000 5% cumulative preference shares issued at $1 each	$ 500 000
1 000 000 ordinary shares issued at $2 each	2 000 000
Total share capital	3 500 000
General reserve	350 000
Retained earnings	(200 000)
	$3 650 000

Additional information

During the year ended 30 June 2019, the following transactions occurred:

2018

Oct. 1 Fiorente Ltd settled a long standing civil lawsuit for $125 000 (significantly less than had been expected). The directors had previously placed $350 000 into a general reserve in anticipation of the potential costs. The board has now decided that the general reserve can be discontinued.

Dec. 1 The directors had not paid the preference shareholders their dividend for 2018, given the lack of retained earnings. They now declare and pay the dividend.

2019

Feb. 1 The profits for the half year were such that the directors declare and pay 15c per share interim dividend for ordinary shareholders.

June 30 The profit before tax for the year was $1 264 000. The directors decided to recommend a final dividend of 30c per share for ordinary shareholders. Assume the tax rate is 30% for estimating income tax expense.

In determining the profit before tax of $1 264 000 the following items were taken into account:

Sales	$7 510 000
Cost of sales	5 760 000
Selling, distribution and administrative expenses	61 000
Damages on lawsuit	125 000
Revaluation down of land	351 000
Profit on sale of investment in government bonds	585 000
Bad debts expense	220 000

Required

A. Prepare general journal entries for all dated transactions in the additional information.
B. Prepare a statement of profit or loss and other comprehensive income for the reporting period ended 30 June 2019 in accordance with current accounting standards.
C. Prepare a statement of changes in equity for Fiorente Ltd for the reporting period ended 30 June 2019.
D. Discuss the nature and purpose of the general reserve.

Problem 17.4 DIVIDENDS, RESERVES, FINANCIAL STATEMENTS **LO 2, 4**

Royal Empire Ltd commenced trading many years ago. Equity at 30 June 2018 comprised:

Share capital, 200 000 ordinary shares fully paid at $5	$1 000 000
General reserve	335 000
Retained earnings	171 500
	$1 506 500

During the financial year ended 30 June 2019, the following transactions with respect to capital and dividends took place:

2018

Aug.	31	Final dividend of 10c per share for year ended 30 June 2018 was ratified and paid.
Oct.	31	Issued 100 000 shares, fully paid at $5, in payment for assets with a fair value of $500 000.

2019

Mar.	31	Interim dividend of 50c for the half-year ended 31 December 2018 paid on all shares.
June	30	The company made a profit before tax of $580 000 for the financial year. Revenue for the year was $1 350 000 and interest expense was $48 000. The directors decided: **(a)** to provide for income tax expense and current liability at 30% of profit before tax **(b)** to transfer $20 000 to general reserve **(c)** to recommend a final dividend of $1 per share on all issued shares **(d)** to revalue plant with a cost of $100 000 and a carrying amount of $70 000 to $85 000.

Required

A. Prepare entries in general journal format to record the above transactions. Ignore closing entries.
B. Prepare the statement of profit or loss and other comprehensive income for the reporting period ended 30 June 2019 to comply with IAS 1/AASB 101.
C. Prepare a statement of changes in equity for the year ended 30 June 2019.

Problem 17.5 TAKEOVER OF EXISTING BUSINESS, ISSUE OF ORDINARY SHARES, STATEMENT OF FINANCIAL POSITION LO 3

Dandino Ltd was formed on 1 March 2018 for the purpose of purchasing the business of Verama Ltd whose assets and liabilities at that date were as shown below.

Assets	
Freehold land	$ 30 000
Buildings	180 000
Machinery	70 000
Supplies	45 000
Accounts receivable	120 000
Inventory	190 000
Liabilities	
Mortgage payable	70 000
Accounts payable	85 000

Additional information

(a) Dandino Ltd agreed that the fair values of all assets and liabilities taken over were equal to carrying amounts with the exception of the following:

(i) Freehold land was to be valued at $80 000, buildings to be valued at $120 000, accounts receivable to be taken over at $100 000 and inventory to be valued at $180 000.

(ii) The purchase price was $500 000 and, in satisfaction thereof, the vendors were to receive $400 000 in fully paid ordinary shares and the balance in cash. The fair value of each ordinary share is $2.

(b) The company offered for public subscription 300 000 ordinary shares to be paid in full on 31 March.

(c) Applications were received for 320 000 shares. All money due was received on application.

(d) On April 30, the directors allotted 300 000 shares and any excess application money received was returned to unsuccessful applicants.

(e) Verama Ltd was paid, according to the agreement, on 15 May 2018.

Required

A. Record all the above transactions in general journal form in the accounts of Dandino Ltd up to 30 June 2018.
B. Prepare the statement of financial position for Dandino Ltd as at 30 June 2018 in accordance with the requirements of IAS 1/AASB 101.

Problem 17.6 CONVERSION OF PARTNERSHIP INTO COMPANY, ISSUE OF SHARES, STATEMENT OF FINANCIAL POSITION **LO 3**

Munce and Cassidy, the proprietors of a consulting business, decided to convert their business into a limited company known as Hawkspur Ltd. The following was the balance sheet for internal purposes at the date of the proposed conversion, 1 July 2018:

MUNCE AND CASSIDY
Balance Sheet
as at 30 June 2018

CURRENT LIABILITY			NON-CURRENT ASSETS (NET)		
Accounts payable		$ 15 000	Freehold premises	$ 40 000	
NON-CURRENT LIABILITY			Equipment	18 000	
Mortgage payable		20 000	Fixtures and fittings	12 000	$ 70 000
EQUITY			CURRENT ASSETS		
Munce, Capital	$45 000		Accounts receivable	22 000	
Cassidy, Capital	45 000	90 000	Cash at bank	5 000	
			Inventory	28 000	55 000
		$125 000			$125 000

Hawkspur Ltd was registered on 1 July 2018. The purchase agreement provided that the assets other than cash at bank were to be taken over at the following fair values:

Freehold premises	$60 000
Equipment	18 000
Accounts receivable less 10%	
Inventory	25 000
Fixtures and fittings	10 000

Munce and Cassidy were to pay the accounts payable and discharge the mortgage payable. As consideration for the sale they were to receive $40 000 in cash 7 days after the allotment of shares issued to the public and on 31 August 60 000 fully paid ordinary shares and 40 000 fully paid 10% preference shares, valued at $1 per share.

The company offered for public subscription 80 000 preference shares and 100 000 ordinary shares payable 50c per share on application, 25c per share on allotment and 25c per share 1 month after allotment. The subscription lists closed on 31 July and application money was received for 65 000 preference shares and 120 000 ordinary shares.

On 4 August, the directors proceeded to allotment, and forwarded letters of regret enclosing refund of application money to unsuccessful applicants. By 31 August, all the allotment money was received except that due on 1400 ordinary shares. The purchase price was paid to Munce and Cassidy as per agreement. Share issue costs paid on 31 August amounted to $4500.

The company purchased additional freehold property on 1 September 2018 for $195 000, satisfied by the issue of 150 000 fully paid ordinary shares, valued at $1 each, $30 000 on long-term loan, and the balance in cash.

Required

A. Prepare journal entries (in general journal form) for Hawkspur Ltd up to and including 1 September

2018.

B. Show the statement of financial position of the company as at 1 September 2018. Follow the requirements of IAS 1/AASB 101.

Problem 17.7 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME, STATEMENT OF FINANCIAL POSITION AND RETAINED EARNINGS

LO 2, 3, 4

The trial balance of Le Max Ltd at 30 June 2019 was as shown below.

LE MAX LTD
Trial Balance
as at 30 June 2019

	Debit	Credit
Share capital (ordinary shares issued at $2, fully paid)		$ 200 000
General surplus		25 000
Retained earnings		73 400
Revaluation surplus		85 000
Mortgage loan (secured over land and buildings)		250 000
Bank overdraft (at call)		70 900
7% debentures		80 000
Interest payable		2 800
Accounts payable		69 500
Dividend payable		10 000
Employee benefits payable		34 200
GST payable		18 400
Allowance for doubtful debts		12 800
Accumulated depreciation – plant and equipment		42 500
Accumulated impairment losses – goodwill		10 000
Cash at bank	$ 500	
Accounts receivable	67 800	
Inventory	87 700	
Prepaid insurance	7 000	
Plant and equipment	222 500	
Land	220 000	
Buildings	380 000	
Goodwill	50 000	
Government bonds (long-term)	35 000	
Shares in Carncotton Ltd	20 000	
Sales revenue		825 000
Cost of sales	450 000	
General expenses	265 000	
Loss on sale of plant	10 000	
Interest received		2 500
Dividends received		3 500
	$1 815 500	$1 815 500

Additional information

(a) General expenses for the year include the following items:

Depreciation – plant and equipment	$ 17 200
Depreciation – buildings	15 000
Employee benefits	11 600
Bad debts	10 000
Interest expense	28 700
Inventory losses	6 200
Discount allowed	4 200
Council rates	16 120
Superannuation contributions	7 000

(b) The company tax rate is 30%, to be applied to profit before tax.

(c) The opening balance of the allowance for doubtful debts was $15 250.

(d) All assets are carried at cost, except for land and buildings, which are carried at fair value.

(e) During the year, 50 000 shares were issued at an issue price of $2 each, payable in full on application.

(f) On 30 June 2019, the directors revalued land and buildings based on fair values. The carrying amounts of land and buildings before the revaluation were $195 000 and $350 000 respectively.

(g) The mortgage loan is repayable in annual instalments of $50 000 starting on 1 March.

(h) The debentures are to be redeemed on 31 March 2020. There is no plan to refinance these debentures in the future.

(i) The employee benefits payable consist of:

Annual leave	$18 400
Long-service leave	15 800

(j) No employee is eligible for long-service leave until 2023.

(k) Goodwill is not considered to be impaired.

(l) During the year, Le Max Ltd sold an item of plant for $38 000. The carrying amount of the plant at the date of sale was $48 000.

(m) During the year, an interim dividend of $20 000 was paid, and a final dividend of $10 000 was declared. $25 000 was also transferred to the general reserve.

Required

A. Prepare a statement of profit or loss and other comprehensive income for Le Max Ltd for the year ended 30 June 2019, according to the requirements of IAS 1/AASB 101.
B. Prepare a statement of financial position at 30 June 2019 to comply with IAS 1/AASB 101.
C. Prepare the Retained Earnings account for the year ended 30 June 2019.

Problem 17.8 COMPREHENSIVE PROBLEM

LO 2, 3

The ledger balances of Outback Grande Ltd as at 30 June 2019 are shown opposite.

The following adjustments are yet to be taken into the accounts:

1. Inventory on hand at 30 June 2019 valued at $94 250.
2. Allowance for doubtful debts to be increased to $1625, which was the balance of the account on 1 July 2018.
3. It was discovered that $780 for office equipment had been charged in error to the purchases account on 1 July 2018.
4. Depreciation of delivery vehicles and office equipment for the current year to be at the rate of 20% p.a. on cost, and on buildings at 5% on cost.
5. Interest expense accrued $325.
6. Unexpired insurance, $130.
7. Declare a dividend to shareholders of $22 750 for the current year.
8. Transfer $6500 to general reserve and reduce goodwill by $13 000 because of impairment.

OUTBACK GRANDE LTD
Trial Balance
as at 30 June 2019

	Debit	Credit
Accounts receivable	$ 81 250	
Accounts payable		$40 700
Advertising expense	4 875	
Stationery expenses	585	
Share capital		325 000
Bills receivable	6 175	

Bank overdraft		10 650
Delivery vehicles (at cost)	30 875	
Directors' fees	8 125	
Discount allowed	3 250	
First call (25c per share)	6 500	
General expenses	5 070	
Goodwill (at cost)	39 000	
Income from investments		5 000
Insurance expense	625	
Interest expense	3 120	
Investments (at cost)	104 000	
Land (at cost)	26 650	
Buildings (at cost)	100 000	
Electricity expense	1 075	
Maintenance of vehicles expense	4 375	
Office equipment (at cost)	3 250	
Petty cash advance	130	
Retained earnings (1/7/18)		34 585
Accumulated depreciation – delivery vehicles		5 850
– buildings		4 550
Allowance for doubtful debts		975
Current tax liability		27 650
Purchases	124 870	
Sales		227 500
Income tax expense	27 650	
Salaries expense – administrative	11 245	
Salaries expense – selling	15 015	
Inventory (1/7/18)	74 750	
	$682 460	$682 460

Required

A. Prepare the statement of profit or loss and other comprehensive income for the year ended 30 June 2019 in accordance with the requirements of IAS 1/AASB 101.

B. Prepare the statement of financial position as at 30 June 2019 in accordance with the requirements of IAS 1/AASB 101.

Problem 17.9 COMPREHENSIVE PROBLEM

LO 2, 3, 4

The following unadjusted trial balance is for the year ended 30 June 2019:

BILLY GOAT LTD
Unadjusted Trial Balance
as at 30 June 2019

	Debit	Credit
Bank overdraft		$ 178 050
Vehicle rental expenses	$ 72 000	
Cash at bank	7 500	
Investment in government bonds	150 000	
Goodwill	30 000	
Interest revenue		4 800
Insurance expense	3 000	
Land	230 000	
Buildings	1 000 000	
Office furniture and equipment	127 000	
Retained earnings (1/7/18)		89 000
Revaluation surplus		15 000
Accumulated depreciation – office furniture and equipment		23 000
Accumulated depreciation – buildings		100 000

Accumulated impairment losses – goodwill		6 000
Allowance for doubtful debts		14 700
Cost of sales	197 400	
Advertising expense	12 300	
Sales returns and allowances	8 700	
Sales		478 120
Mortgage payable		90 000
GST payable		15 000
Inventory	106 000	
Share capital (issued and paid to $1 per share)		1 140 000
General reserve		18 000
Interest expense on overdraft	11 300	
Discount received		11 250
Discount allowed	12 000	
Fees revenue		17 900
Proceeds on sale of furniture		13 000
Carrying amount of furniture sold	5 000	
Accounts payable		118 900
Accounts receivable	225 400	
Salaries of sales staff	60 000	
Administrative wages	70 620	
Interest expense on mortgage	4 500	
	$2 332 720	$2 332 720

Additional information

(a) Billy Goat Ltd is involved in the computer services industry. Leased vehicles are used mainly for delivery and service of computers. The company's head office, which houses its administrative staff, is located on a prime piece of real estate in the local township.

(b) There have been no share issues during the year.

(c) The following adjustments are required before preparation of Billy Goat Ltd's financial statements for the year.

1. Depreciation to be provided on a straight-line basis on buildings at 5% p.a. and on office furniture and equipment at 10% p.a. The sale of office furniture occurred at the beginning of the current financial year.
2. Goodwill is considered to have fallen in value through impairment by 10% of its original cost.

3. Management was informed that a particular debtor was bankrupt and the full account of $12 000 needs to be written off.
4. The Allowance for Doubtful Debts account needs to be adjusted to 8% of accounts receivable, after considering the adjustment in (3) above.
5. Current income tax expense (and tax liability) for the year is estimated to be $8000.
6. Accrued wages to staff: sales $1500, administrative $2000.
7. Vehicle rental paid in advance at 30 June 2019 amounted to $30 000.
8. A dividend of 3c per share is to be declared on shares.
9. Land is to be revalued to its fair value of $250 000.
10. Transfer $10 000 from the general reserve to retained earnings.

Required

A. Prepare the journal entries (in general journal form) required by items 1–10 above.
B. Prepare the adjusted trial balance as at 30 June 2019.
C. Prepare the statement of profit or loss and other comprehensive income, with expenses classified by function, for Billy Goat Ltd for the year ended 30 June 2019 in accordance with the requirements of IAS 1/AASB 101.
D. Prepare the statement of changes in equity for the year ended 30 June 2019 in accordance with the requirements of IAS 1/AASB 101.
E. Prepare the company's classified statement of financial position as at 30 June 2019 in accordance with the requirements of IAS 1/AASB 101, using the current/non-current classification.

DECISION ANALYSIS

Treatment of events for a construction company

Terrific Town Houses Ltd is a large company registered in South Australia for the purpose of constructing blocks of home units and town houses. The company conducts its activities in all states. The managing director, Richard Townsend, who is keen to show favourable profit figures, especially profit from operations, is confronted with a number of doubtful issues. He has asked you, the accountant, to clarify the accounting treatment for each of these issues in order to finalise the accounts for the year ended 30 June 2019.

1. Last year, the company acquired land at Kalamunda on the Darling Ranges behind Perth, and had begun construction of 15 town houses on this land. The construction work was three-quarters finished when a bushfire swept through the area on the weekend of 24–25 March 2019. The company had a policy of self-insurance, and estimated that the loss incurred was approximately $2.5 million. Fire danger in the locality of Kalamunda is extremely high during the late summer months every year.
2. Many years ago, the company purchased a large tract of land at Nambucca Heads in New South Wales for $1.5 million, for the purpose of erecting home units. Because of a recession, construction work was delayed. Last November, the company received an offer for the land for $3 million. The offer was considered too good to refuse, and the land was sold at this price on 30 November 2018.
3. The company also holds land at Ipswich in Queensland, which it had purchased some years ago for $600 000. Unfortunately, part of the land subsided because of old coalmines, which were unrecorded by the government as the mines were closed before records were kept. Consequently, the land was regarded as unsuitable for building purposes. The company believes that the land is worth only $300 000 at the end of the reporting period, and it intends to revalue the land down to this recoverable amount.

   However, in the Mount Lofty Ranges behind Adelaide, other land held by the company has jumped considerably in value from cost of $800 000 to an estimated $1.2 million. Townsend intends to revalue this land to offset the loss on the downward valuation of the land at Ipswich.
4. Land costing $200 000 was purchased some years ago at Anglesea in Victoria. An application to have the land rezoned for the purpose of constructing town houses was unsuccessful, and the company sold the land for $350 000 on 16 April 2019.

5. The company had acquired, for $2.5 million, a piece of land for construction of an international hotel and casino on the banks of the Tamar River. At that time (2015), the local council was enthusiastically pro-development and the company was given all necessary approvals to commence construction. Construction began in 2016, and costs of $3 million had already been incurred when lobbying by conservationists caused the state government to halt the company’s work on the project in May 2016. The subsequent court case did not favour the company’s arguments for continuation of the project, and the project had to be abandoned in February 2019. The company lost $4 million in sunk costs and legal fees. Townsend suggested that the loss should be written off against retained earnings on the grounds that it was really a loss incurred in the previous financial year when work ceased.

Required

Advise Townsend on the most appropriate treatment in the financial statements for each of the above circumstances.

COMMUNICATION AND LEADERSHIP

The changing face of corporate reporting

This chapter has focused on Australian financial reporting as legislated by the Corporations Act. However, companies are increasingly prepared to disclose additional information beyond that required by legislation. These types of voluntary disclosures may include information about environmental actions, sustainability, employee initiatives and community impacts. Like financial reporting, there is a significant cost attached to the preparation and dissemination of these reports. It is likely, therefore, that companies provide this information because they believe that there may be long term benefits in doing so.

Required

Work in groups of three and search the internet for Australian companies that provide corporate citizenship reports (e.g. Exxon Mobil Australia, KPMG, Telstra Corporation). Each group should work with a report from a different company. Each group should prepare and present a report addressing the following.

1. Discuss the relationship between the corporate citizenship report and the financial statements.
2. Identify the key achievements that each company has chosen to highlight. Why do you think they have chosen these elements? Compare and contrast with the other groups.
3. Who do you think the report is aimed at? What benefits does the company expect to reap from preparing this report? Is this the same for each company? Discuss.

ETHICS AND GOVERNANCE

Corporate governance in action

The Australian Securities and Investments Commission is the government body charged with administering the legal requirements of Australian financial reporting legislation. Visit the website for ASIC, www.asic.gov.au, and find out more about the roles and rights of ASIC in regards to financial reporting in Australia.

FINANCIAL ANALYSIS

Refer to the latest consolidated financial statements of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the following questions.

1. Provide details of the consolidated entity's income, major expense and profit after tax for the current year. In percentage terms, how much have these items changed from the previous period?
2. Do the consolidated financial statements follow the suggested formats, as illustrated in figures 17.1 and 17.4 of this chapter? If not, how and why do they differ?
3. What items of other comprehensive income are reported by JB Hi-Fi Limited? What percentage of total comprehensive income do these represent?
4. In the last two years how much has JB Hi-Fi Limited paid out to shareholders in the form of the dividends?

CHAPTER 18

Statement of cash flows

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the difference between the cash basis and the accrual basis of accounting (pp. 130–2)
- the major items included in a company's statement of profit or loss and other comprehensive income (pp. 723–6)
- the major items included in a company's statement of financial position (pp. 726–7)
- the major items included in a company's statement of changes in equity (pp. 727–8).

Learning Objectives

After studying this chapter you should be able to:

1 explain the reasons for preparing a statement of cash flows (p. 753)
2 describe the general format of the statement of cash flows (pp. 753–5)
3 define the concept of cash in accordance with IAS 7/AASB 107 ***Statement of Cash Flows*** (pp. 755–6)
4 classify cash inflows and cash outflows into operating, investing and financing activities (pp. 756–8)
5 prepare a statement of cash flows for a sole trader using the direct method by analysing cash records and other financial statements (pp. 758–70)
6 determine the notes to the statement of cash flows (pp. 770–4)
7 identify and explain some of the more advanced issues involved in the preparation of the statement of cash flows (pp. 774–84)
8 prepare and analyse the statement of cash flows for a company after consideration of the more advanced issues (pp. 784–93)

9 identify the limitations of the statement of cash flows (pp. 793–4).

Cash flow management — lack of appetite for credit

With record numbers of business bankruptcies this year, cash flow management in private enterprises has come back into focus as business owners try to offset poor economic conditions. The Insolvency and Trustee Service Australia (ITSA) says the proportion of debtors reaching a business-related debt agreement in the June quarter — 25 per cent of all debt agreements — was the highest business proportion since the September quarter 2003.

And while cash flow is often discussed in terms of finance, the new cash flow discipline is as likely to centre on internal discipline and a 'cash is king' attitude, according to advisers such as Andrew Graham, national head of business solutions at RSM Bird Cameron. 'Using finance to bridge cash shortfalls is still popular in small and medium businesses, but most of them are looking at their internal finance systems first.' Graham says the current trend is for private business owners to try matching revenue to costs, ensuring that all business activities are profitable.

'It's very much the old "we'll pay you when we get paid",' says Graham. 'These are not fancy computer programs — it's business owners breaking down projects into stages, ensuring they are not committing to orders until progress invoices have gone out. It's an old-fashioned approach but it's keeping many businesses afloat.'

He says ongoing surveys among clients suggest 30-day invoices are being paid in 55–60 days, putting cash flow pressure on the entire supply chain.

Good time to refinance business debt

Graham says the traditional backstop for cash flow problems, the banks, are proving expensive, in line with Australia's sluggish business credit growth: 0.9 per cent in the year to May 2013, at a time when housing credit rose 4.5 per cent. 'The current cash rate is as low as it's ever been, suggesting it's a good time to refinance business debt,' he says. 'But the banks are scrutinising security and they're really looking at the ability to repay. Owners go looking for a better rate on their debt and the bank is increasing their risk margin.'

Graham says the banks’ indicator rates for secured business lending are only the starting point. ‘Some of the property put up as security doesn’t have the value it had four or five years ago, and the banks are also repricing the risk once they’ve had another look at the business’s books. Some owners walk away — others don’t have the choice.’

It’s a point borne out by East & Partners research, which found that 43 per cent of the small and medium-sized enterprises surveyed had experienced rate rises on their secured loans in the past six months, at a time when the cash rate was dropping to historic lows. East also found that of the 23.2 per cent of SMEs applying for credit during 2012, 44 per cent were unsuccessful.

Head of markets analysis at East & Partners, Lachlan Colquhoun, says business credit growth is low not because enterprises don’t need it, but because banks are tightening their credit rules and business owners don’t like what they’re being offered. ‘Business owners are approaching their banks, but high numbers are walking away because the covenants are too onerous or the pricing is too high.’

Colquhoun says many SME owners are confused about rising credit costs at a time of a very low cash rate.

They’re hardly being paranoid: the Reserve Bank of Australia, in a recent report, said fees paid in household lending fell in 2012 to $4.1 billion, while bank fees in business lending rose 7 per cent to $7.3 billion.

More curious is that private business owners, according to East & Partners Business surveys, have returned to being net seekers of credit for the first time in several years.

Returned appetite for cash flow products

‘The appetite for the basic cash flow products has returned,’ says Colquhoun. ‘Leasing and commercial hire purchase are growing slowly as business owners want assets off the books.’ He says the current feature of leasing finance — along with the overdraft, one of the key cash flow finance tools for SMEs — is that the banks are not chasing private businesses as they have in the past. ‘The main channel into the small and medium sized market is brokers.’

The focus on cash flow isn’t only about triage. Greg Hayes, director of Hayes Knight accountants and business advisers, says with cash being king, successful companies are making cheap acquisitions. ‘The flip side of businesses struggling to be cash flow positive, are the ones who have thrived in this downturn,’ says Hayes. He says distressed businesses in an insolvency arrangement are selling assets for a fraction of their market worth. ‘If a business can buy revenue-generating assets for much less than they should pay, then they can strengthen their cash flow position.’ ‘It’s not only hard assets, such as plant and equipment,’ he says. ‘You’re seeing client lists and business systems being acquired very cheaply. ‘Obviously, if you can boost revenues without the normal costs, your cash flow is probably under less pressure in relation to your competitors.’ ‘Businesses are paying down debt.’ He says the lack of appetite for business credit in the past few years was only partly due to the banks’ tightening credit policies; many business owners preferred to deleverage and concentrate on their internal cash flow management. ‘Businesses are paying down debt and getting control of their cash, so they’ll make two $5000 orders rather than one $10 000 order,’ says Hayes. ‘There’s a lot of negotiating for better prices and terms.’

He said some popular cash flow management techniques were ill-advised because they came at the expense of profit margins, and those decisions were haunting many business owners. ‘Some sectors of the economy are in a state of permanent discounting, so they’re making up to half the margin they once operated on,’ says Hayes. ‘They’re sacrificing profit in order to keep the cash flowing, but that’s how you become a marginal business.’ He says the repricing of risk by the banks means that successful businesses can refinance with cheaper debt, but troubled firms are being offered more expensive facilities. ‘Some of the pain is occurring because many private businesses have built debts to the Australian Taxation Office and a year ago the ATO decided to pursue those outstanding amounts. The business owners take a loan or extend the overdraft to pay the ATO and they are not happy with what the bank is charging them. ‘Some banks are offering new and improved cash flow services to business customers, in spite of rising business borrowing costs. Rob Phelps, head of business banking for small business at St George Banking Group, says the bank has developed cash flow tools in response to customer demand. ‘Cash flow is important to small business owners,’ he says. ‘We have tools for business customers that can help speed payments from customers, and allows owners to manage their transactional banking and debt facilities from mobile devices such as iPhones and iPads.’ ‘We’re all walking round with mini computers in our pockets,’ Phelps says. ‘These cash flow tools are online and they help owners manage their cash and operate their business.’

Source: Abernethy, M 2013, ‘Lack of appetite for credit’, ***The Australian Financial Review***, Supplement, 14 August, p. 2.

Chapter preview

As indicated in chapter 17, a statement of profit or loss and other comprehensive income, a statement of financial position, a statement of changes in equity and a statement of cash flows must be included in a set of annual financial statements to comply with the ***Corporations Act 2001*** (s. 295) and/or accounting standards. The first three statements are presented in chapter 17. The amounts presented in these statements are a result of applying accrual accounting.

The statement of cash flows is important to users of general purpose financial statements because it identifies the cash inflows and cash outflows from operating, financing and investing activities of the entity that have occurred during the reporting period. An analysis of comparative statements of financial position for successive periods will identify the total changes that have taken place in asset, liability and equity accounts, but will not provide details of the cash flows associated with those changes. The statement of changes in equity shows movements in equity from owner sources, including details of dividends, share issues and reserve movements, but does not show cash flows. The statement of profit and loss and other comprehensive income summarises the income, revenue and expense activities over the period from sources other than owners, but does not provide details of the cash flows associated with such activities, because the statement is based on accrual accounting principles and not on the cash basis of accounting. Details of the purpose and content of the statement of cash flows are contained in IAS 7/AASB 107 ***Statement of Cash Flows***.

18.1 Purpose of the statement of cash flows

LO 1 **Explain the reasons for preparing a statement of cash flows.**

The purpose of a statement of cash flows is to provide information about the changes to an entity’s cash and cash equivalents over a period of time. It is designed to enable users of general purpose financial statements to assess the ability of the entity to generate cash and to predict future cash requirements. According to the accounting standard, the statement of cash flows, when used in conjunction with the other financial statements, will enable users to:

- evaluate the entity’s financial structure, including its liquidity and solvency
- assess the entity’s ability to generate cash in the future and predict future cash flows
- check the accuracy of past assessments of future cash flows
- examine the relationship between profitability and net cash flow
- evaluate the changes in net assets of the entity
- compare the performance of this entity with other entities, because it eliminates the effects of using different accounting treatments (e.g. depreciation methods) for the same transactions and events
- evaluate the entity’s ability to adapt to changing circumstances and opportunities.

The statement of cash flows can also provide useful information to internal users such as managers in their planning and controlling operations. For example, from the scene setter at the beginning of this chapter, banks are developing tools for business managers to assist with cash flow management.

LEARNING CHECK

☐ A statement of cash flows can be used to help evaluate an entity’s financial structure, liquidity and solvency.

☐ The statement of cash flows can also be used to assess the ability of an entity to generate cash, to help predict future cash flows, and to check the accuracy of past assessments of cash flows.

18.2 General format of the statement of cash flows

LO 2 **Describe the general format of the statement of cash flows.**

IAS 7/AASB 107 specifies the items to be disclosed in a statement of cash flows, and illustrative examples of acceptable formats accompany, but are not part of, the standard. There are several ways in which the statement can be presented; a typical format of the statement of cash flows for a company is presented in figure 18.1.

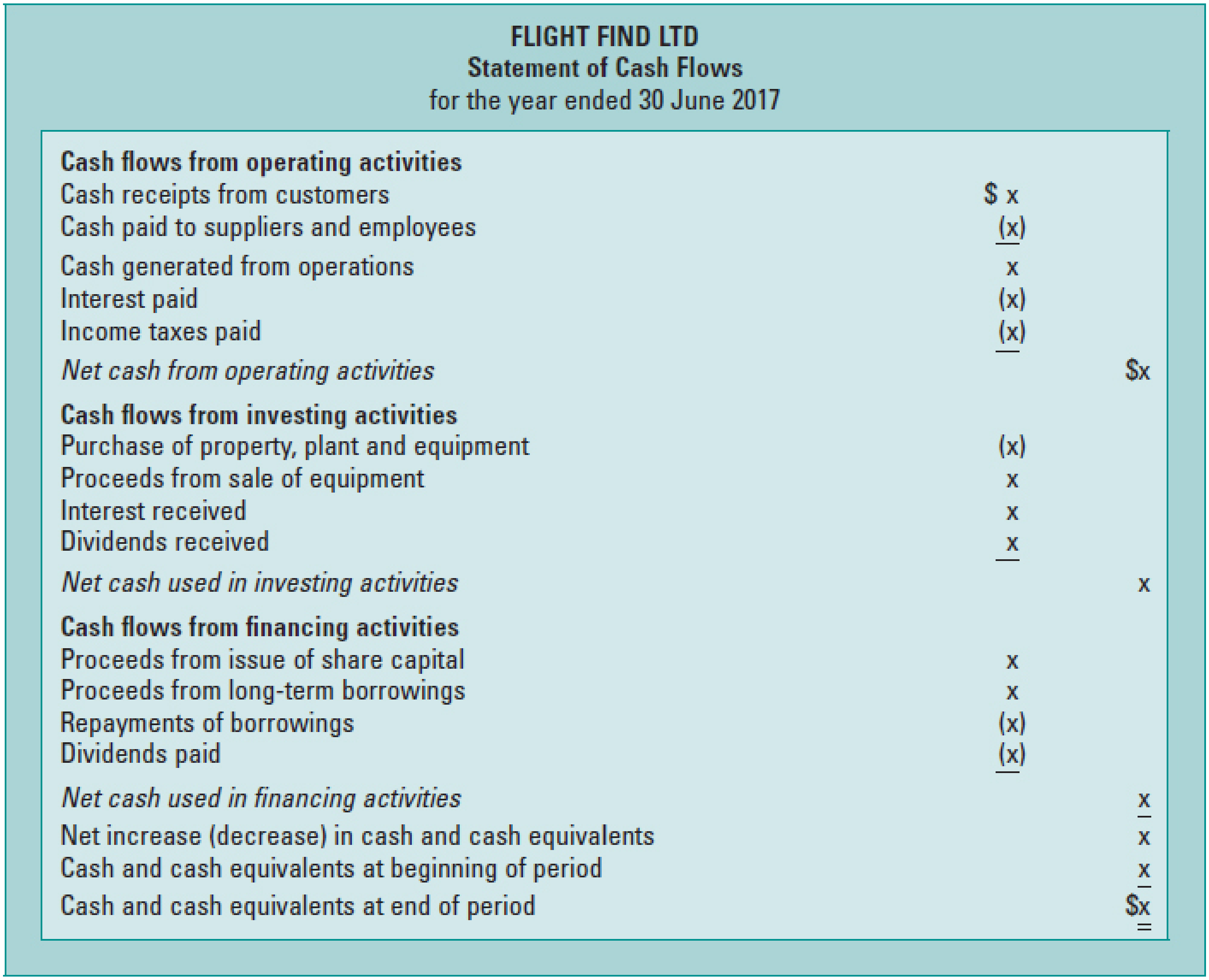
The standard specifies that the statement must contain separate disclosure of cash inflows and outflows, classified as arising from operating, investing or financing activities, as appropriate. The international (IASB) standard and the Australian (AASB) standard allow the use of either the direct method of reporting cash flows or the indirect method; however, the use of the direct method is encouraged by both the IASB and the AASB. The difference between the direct and indirect methods is explained later (p. 761). The direct method is illustrated in figure 18.1.

The net cash flows for each classification are then totalled to provide the net increase (decrease) in cash over the reporting period. Cash at the beginning of the reporting period is added to disclose the amount of cash at the end of the reporting period. In practice, comparative statements — current year and previous year — are produced, but in this book 1-year statements only are illustrated. However, as is discussed later, comparative statements are essential for interpreting the information contained in the statement.

Even though subclassification of cash flows is not required, IAS 7/AASB 107 requires disclosure of specific information in the statement, provided that these items are material, as defined in AASB 1031 ***Materiality***. Certain cash flows must be disclosed as separate items, and classified consistently from period to period regardless of the classification of cash flows used. The items (illustrated in figure 18.1) that must be separately disclosed under the standard are:

- interest received and paid
- dividends received and paid
- income tax paid.

Figure 18.1 Typical format for statement of cash flows using the direct method (based on Illustrative Example A accompanying IAS 7/AASB 107)



FLIGHT FIND LTD
Statement of Cash Flows
for the year ended 30 June 2017

Cash flows from operating activities		
Cash receipts from customers	$ x	
Cash paid to suppliers and employees	(x)	
Cash generated from operations	x	
Interest paid	(x)	
Income taxes paid	(x)	
Net cash from operating activities		$x
Cash flows from investing activities		
Purchase of property, plant and equipment	(x)	
Proceeds from sale of equipment	x	
Interest received	x	
Dividends received	x	
Net cash used in investing activities		x
Cash flows from financing activities		
Proceeds from issue of share capital	x	
Proceeds from long-term borrowings	x	
Repayments of borrowings	(x)	
Dividends paid	(x)	
Net cash used in financing activities		x
Net increase (decrease) in cash and cash equivalents		x
Cash and cash equivalents at beginning of period		x
Cash and cash equivalents at end of period		$x

IAS 7/AASB 107 requires interest and dividends received and paid to be classified consistently from period to period as either operating, investing or financing activities.

IAS 7/AASB 107 also requires cash flows from income tax to be disclosed separately and classified as part of cash flows from operating activities, unless such payment can be ***specifically*** identified with investing or financing activities. If cash flows from income tax have been allocated to more than one category, the total amount must be disclosed separately.

Gross flows must be reported, and netting (e.g. setting off interest received against interest paid to determine a ‘net’ interest amount) is not allowed. Exceptions under the standard to this general principle are rare, but transactions that represent holdings and disbursements of cash on behalf of customers, and items where the turnover is quick, the amounts are large and the maturities are short, may be reported on the net basis. The standard provides examples of cash flows that can be reported on a net basis:

- the acceptance and repayment of demand deposits of a bank (but not if they are included within the definition of cash — see the next section in this chapter)
- funds held for customers by an investment entity
- rents collected on behalf of and paid over to the owners of properties
- provided that the turnover is quick, the amounts are large and the maturities are short, advances and repayments of:
  - – principal amounts relating to credit card customers
  - – the purchase and sale of investments
  - – other short-term borrowings with maturity periods of 3 months or less (but not if they are included in the definition of cash — see the next section).

Cash flows may also be reported on a net basis for a financial institution for each of the following activities:

- receipts and payments for deposits with a fixed maturity date
- deposits placed with and withdrawn from other financial institutions
- cash advances and loans and the repayments of those advances and loans.

For the purposes of this chapter, the gross flows approach is followed with no amounts being netted.

Additional explanatory notes are usually required to fulfil all disclosure requirements of the standard, which are extensive. These are generally provided as notes to the statement of cash flows and include:

- a comment disclosing the components of ‘cash and cash equivalents’, and a reconciliation of the amounts in the statement of cash flows to items reported as cash assets in the statement of financial position
- a reconciliation of the net cash provided by operating activities to profit or loss (this note is not required if the indirect method is used in the statement of cash flows)
- details of cash flows from the acquisition and disposal of subsidiaries and other business units
- details about transactions and other events that affect assets and liabilities but do not result in cash flows, referred to as non-cash financing and investing transactions (these are discussed in more detail later in the chapter)
- details of cash balances that are not available for use and the reasons.

Details of an entity’s unused loan facilities may also be disclosed if considered relevant to users in understanding the entity’s financial position and liquidity.

Note that not all the above are covered or included in exercises and problems in this chapter.

LEARNING CHECK

☐ The statement of cash flows classifies cash flows as being from operating, investing and financing activities.

☐ Both the direct method and the indirect method of calculating cash flows from operating activities can be used in Australia; however, use of the direct method is encouraged by the standard.

☐ Many individual cash flows must be disclosed, such as those from interest and dividends received or paid.

☐ Gross cash flows must be reported, and netting of cash flows is permitted only in a few limited circumstances.

☐ Several explanatory notes must be attached to the statement of cash flows.

18.3 Concept of cash

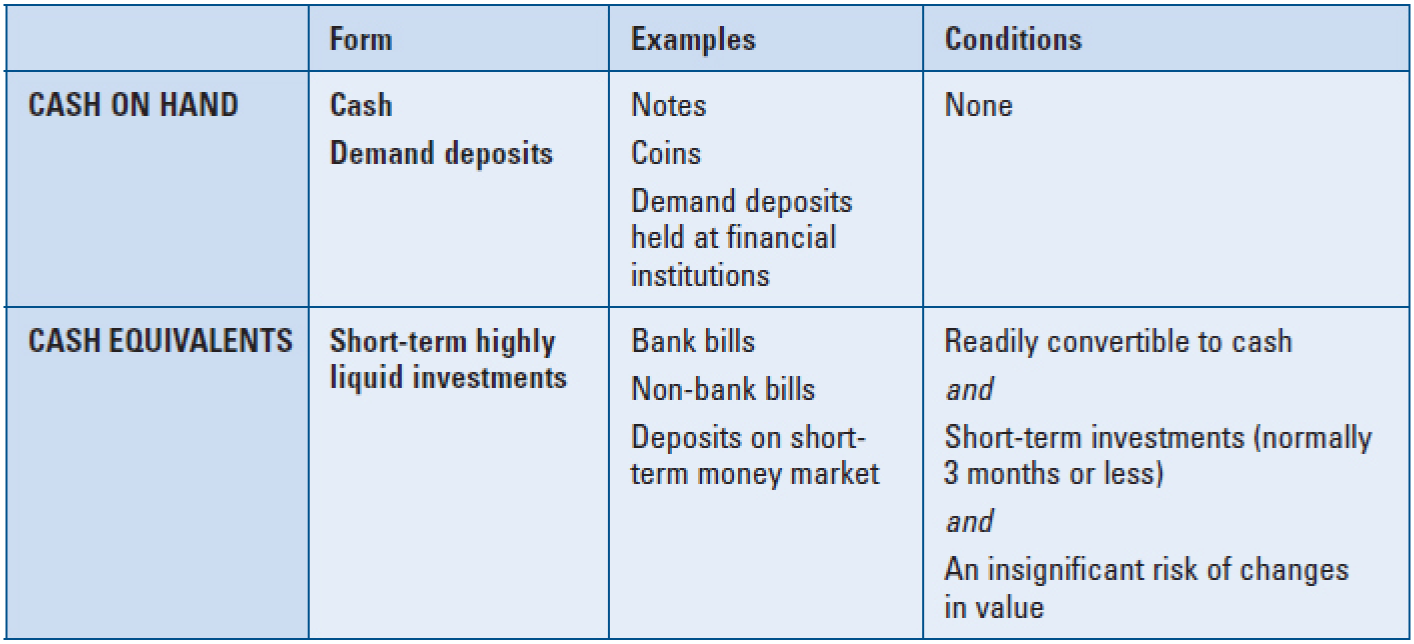
LO 3 Define the concept of cash in accordance with IAS 7/AASB 107 *Statement of Cash Flows*.

The concept of cash adopted by IAS 7/AASB 107 covers cash and cash equivalents. The concept is important since all transfers among items within the concept are not reported in the statement of cash flows. In other words, an item included in the definition of cash and cash equivalents cannot generate a cash flow in the context of preparing a statement of cash flows. **Cash** comprises cash on hand and demand deposits. **Cash equivalents** are short-term highly liquid investments that are readily convertible into known amounts of cash, and that are subject to an insignificant risk of changes in value. Examples of cash equivalents include bank and non-bank bills, and money market deposits close to maturity. As a general rule, investments with a term of 3 months or less also fall within the definition of cash equivalents, provided that the investments are readily convertible into known amounts of cash and are subject to an insignificant risk of changes in value.

IAS 7/AASB 107 recognises that not all highly liquid investments will fall into the definition of cash equivalents, and each entity needs to identify which highly liquid investments are subject to an insignificant risk of changes in value and which are not. Normally, certain items are excluded from the definition of cash, and these include accounts receivable and equity securities (shares). An entity preparing a statement of cash flows is required to disclose, by way of note, the policy adopted for determining which items are classified as cash and cash equivalents in the statement of cash flows. The definition of cash used in the standard is summarised in figure 18.2.

With respect to bank borrowings, the standard suggests that such borrowings are generally reported as financing activities; nevertheless, in some countries, such as Australia, bank overdrafts may be repayable on demand and form an integral part of an entity's cash management. In these circumstances, bank overdrafts are included as a component of cash and cash equivalents. The important characteristic of such banking arrangements is that the bank balance often fluctuates from being positive to overdrawn, i.e. from 'the black into the red'. In this book, a bank overdraft is treated as a financing activity unless it is stated that such an overdraft is repayable on demand and is part of the entity's short-term cash management activities.

Figure 18.2 Concept of cash and cash equivalents in IAS 7/AASB 107



	Form	Examples	Conditions
CASH ON HAND	Cash Demand deposits	Notes Coins Demand deposits held at financial institutions	None
CASH EQUIVALENTS	Short-term highly liquid investments	Bank bills Non-bank bills Deposits on short-term money market	Readily convertible to cash *and* Short-term investments (normally 3 months or less) *and* An insignificant risk of changes in value

Having defined the concept of cash for the statement of cash flows, it is possible to summarise those activities resulting from transactions with parties external to the entity that led to increases and decreases in cash and cash equivalents.

In presenting the statement, the standard requires an entity to classify activities. Classification is based on different functions, and this helps users to identify the effect on cash of the major activities of the entity.

LEARNING CHECK

- ☐ The concept of 'cash' in a statement of cash flows consists of cash and cash equivalents.
- ☐ Cash equivalents represent short-term highly liquid investments that are readily convertible into known amounts of cash, and that are subject to an insignificant risk of a change in value.
- ☐ In Australia, bank overdrafts are also considered as part of cash and cash equivalents if the overdrafts are repayable on demand and form an integral part of the cash management function.

18.4 Classification of cash flow activities

LO 4 **Classify cash inflows and cash outflows into operating, investing and financing activities.**

IAS 7/AASB 107 requires the entity's statement of cash flows to report the cash inflows and cash outflows associated with each of the entity's major activities for the reporting period. The items disclosed in the statement in accordance with the standard should provide users with relevant information of the cash flows classified into the broad categories of:

- cash flows from operating activities
- cash flows from investing activities
- cash flows from financing activities.

Items that typically fall into the classification of operating, investing and financing activities are illustrated in the discussion below.

Cash flows from operating activities

Operating activities are defined in the standard as the 'principal revenue-producing activities of the entity and other activities that are not investing or financing activities'. The results of operating activities are therefore typically reflected in transactions appearing in the statement of profit or loss and other comprehensive income. Transactions reflected in income are, of course, recorded on the basis of accrual accounting and do not necessarily reflect the cash flows associated therewith. The cash flows generated from operating activities generally include receipts from the sale of goods and rendering of services; cash payments to suppliers for goods and services; payments for wages

and salaries; cash premiums to an insurance company for insurance cover; cash receipts from royalties, fees, commissions and other revenue; interest and other borrowing costs paid in cash; cash advances and loans made by financial institutions that relate to the main revenue-producing activities of the entity; and income tax paid or refunded. Note, however, that IAS 7/AASB 107 does not specify any particular categories of cash flows from operating activities apart from the suggestions above and the illustrative examples accompanying the standard.

Depreciation of non-current assets, bad debts expense, and the gain/loss on disposal of non-current assets are non-cash items, all of which are included in profit but do not represent cash flows. They are therefore excluded from cash from operating activities. The gain/loss on the sale of non-current assets, which appears as income/expense in the statement of profit or loss and other comprehensive income, usually involves cash inflows in the form of proceeds from sale, which are classified as cash flows from investing activities under IAS 7/AASB 107.

Cash flows from operating activities are regarded as very important because they represent cash flows generated by the entity's major business operations. A positive and constant stream of these cash flows generally indicate an entity's capacity to generate cash in order to carry on as a going concern and its flexibility to change even the nature of its activities.

Cash flows from investing activities

The standard defines **investing activities** as those that relate to the acquisition and disposal of long-term assets and other investments (such as other entities' shares and debentures) that are not included in cash equivalents. Typical examples of investing activities that generate cash inflows and cash outflows include the purchase and sale of property, plant and equipment, intangibles and other long-term assets, the purchase and sale of shares and debentures in other entities, and cash flows from advances and loans made to parties other than financial institutions. (See additional examples in the standard.)

In Illustrative Example A that accompanies the standard, the cash inflows for interest and dividends generated by investing activities are also classified in the illustrations as cash inflows from investing activities along with the cash flows associated with the purchase and sale of the shares and securities that generate the interest and dividends.

Cash flows from financing activities

Activities that relate to changes in the size and composition of the equity and borrowings of an entity give rise to cash flows from **financing activities**. Examples of such activities include cash proceeds from a share issue, cash drawings by a sole trader, cash dividends paid, cash proceeds from issuing debentures, loans, notes, bonds, mortgages and other borrowings (such as a bank overdraft not repayable on demand and not part of the entity's cash management activities), cash repayment of a mortgage loan, and cash redemption of debentures and/or preference shares. With respect to dividends paid, IAS 7/AASB 107 permits such dividends to be classified as part of cash flows from operating activities in order to help users determine the ability of the entity to pay dividends out of operating cash flows.

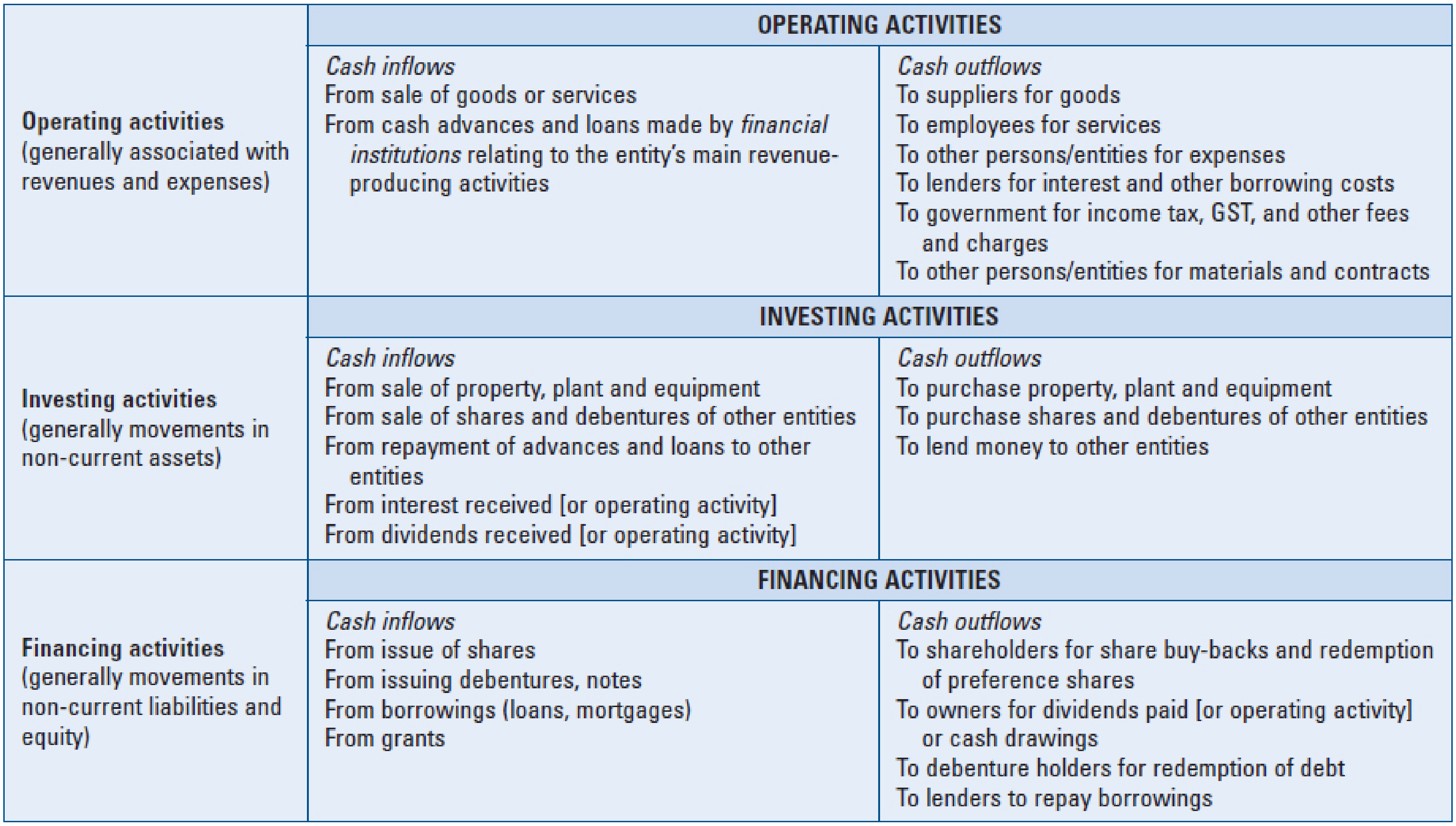
Some cash flows resulting from financing activities, such as interest paid on debentures and loans, may be classified as cash outflows from operating activities, as shown in Illustrative Example A accompanying the standard, and in figure 18.1 (p. 754). However, the treatment of interest paid as an operating activity may be quite inappropriate for some entities. In any one entity, there appears to be little reason for classifying borrowing costs paid from financing activities differently from dividends paid. Both are either financing activities or operating activities.

Refer back to the scene setter at the beginning of the chapter. Here you will see that one of the major focuses of companies as a result of an economic downturn has been on managing cash flows. Some sectors are heavily discounting to move inventory and generate cash flows. However, such discounting adversely impacts profit margins.

Summary of classification

A summary of the typical items that generate cash inflows and cash outflows is shown in figure 18.3, based on the illustrative examples accompanying the standard.

Figure 18.3 Typical cash inflows and cash outflows classified by activity



	OPERATING ACTIVITIES	
Operating activities (generally associated with revenues and expenses)	*Cash inflows* From sale of goods or services From cash advances and loans made by *financial institutions* relating to the entity's main revenue-producing activities	*Cash outflows* To suppliers for goods To employees for services To other persons/entities for expenses To lenders for interest and other borrowing costs To government for income tax, GST, and other fees and charges To other persons/entities for materials and contracts
	INVESTING ACTIVITIES	
Investing activities (generally movements in non-current assets)	*Cash inflows* From sale of property, plant and equipment From sale of shares and debentures of other entities From repayment of advances and loans to other entities From interest received [or operating activity] From dividends received [or operating activity]	*Cash outflows* To purchase property, plant and equipment To purchase shares and debentures of other entities To lend money to other entities
	FINANCING ACTIVITIES	
Financing activities (generally movements in non-current liabilities and equity)	*Cash inflows* From issue of shares From issuing debentures, notes From borrowings (loans, mortgages) From grants	*Cash outflows* To shareholders for share buy-backs and redemption of preference shares To owners for dividends paid [or operating activity] or cash drawings To debenture holders for redemption of debt To lenders to repay borrowings

LEARNING CHECK

☐ Cash flows from operating activities relate to the main revenue-producing activities of the entity.

☐ Cash flows from investing activities relate to the acquisition and disposal of long-term assets and other investments not included in cash equivalents.

☐ Cash flows from financing activities relate to the changes in the size and composition of the equity capital and borrowings of the entity.

18.5 Preparing the statement of cash flows — direct method

LO 5 **Prepare a statement of cash flows for a sole trader using the direct method by analysing cash records and other financial statements.**

Figure 18.1 (p. 754) illustrates that the preparation of a statement of cash flows requires information to be obtained about the cash inflows and cash outflows of an entity over the financial year. This information can be obtained in two ways.

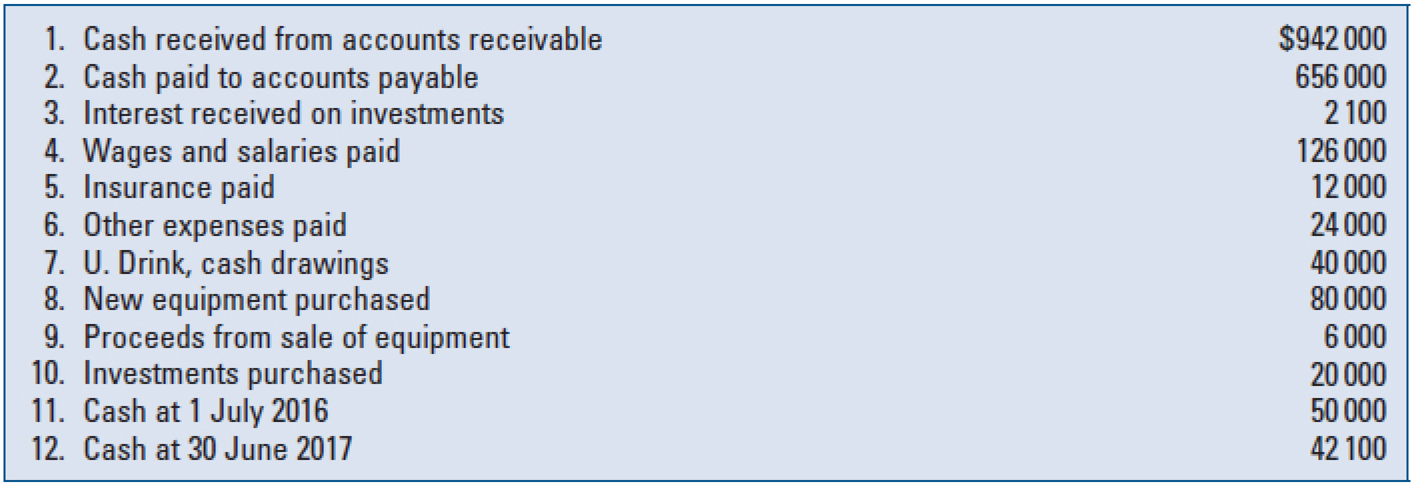
- Analyse, summarise and classify the ***cash*** transactions of the entity together with an analysis of ***other*** transactions to determine the non-cash transactions that affected the assets and liabilities over the period. Some of the other transactions would need to be reported in note form as part of the statement of cash flows.
- Analyse the other financial statements — the income statement and/or statement of profit or loss and other comprehensive income, the statement of financial position/balance sheet and the statement of changes in equity — to determine the cash flows. With this second approach, an analysis of the accounting records is also necessary to identify (a) the transactions that affected assets and liabilities during the reporting period but that did not affect cash, and (b) other information that needs to be disclosed.

Both approaches should produce the same cash inflows and cash outflows. To illustrate, consider the example for the sole trader business, Coffee House, which conducts business in the food industry. Even though the business is small and is not a reporting entity, the owner, U. Drink, likes to prepare financial statements in accordance with IAS 7/AASB 107.

Analysis of cash and other records

Under this approach the information is obtained from a detailed analysis and summary of the cash records (cash receipts and cash payments journals) of the business over the year. Figure 18.4 illustrates this information source.

Figure 18.4 Cash flow summary for the year ended 30 June 2017 — Coffee House



1.	Cash received from accounts receivable	$942 000
2.	Cash paid to accounts payable	656 000
3.	Interest received on investments	2 100
4.	Wages and salaries paid	126 000
5.	Insurance paid	12 000
6.	Other expenses paid	24 000
7.	U. Drink, cash drawings	40 000
8.	New equipment purchased	80 000
9.	Proceeds from sale of equipment	6 000
10.	Investments purchased	20 000
11.	Cash at 1 July 2016	50 000
12.	Cash at 30 June 2017	42 100

The statement of cash flows can be prepared from the summarised cash records shown in figure 18.4 by following these steps.

Step 1: Work out net cash from operating activities using the cash inflows and cash outflows identified as coming from operating activities, grouped according to the requirements of the standard.

Step 2: Work out net cash used in investing activities.

Step 3: Work out net cash used in financing activities.

Step 4: Work out net cash and cash equivalents increase (decrease) for the period.

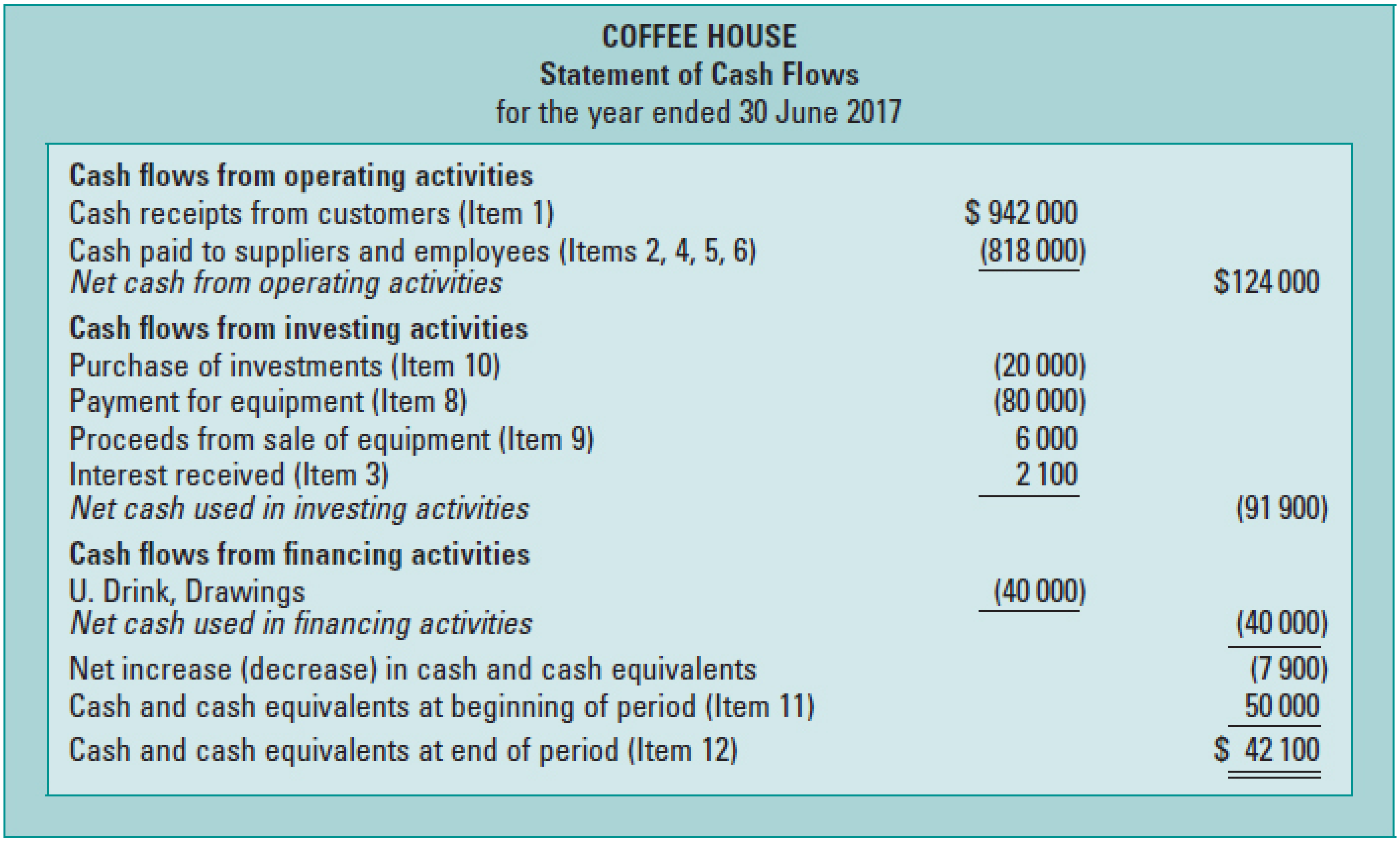
Step 5: Reconcile cash and cash equivalents at the end of the period to that at the beginning of the period.

Operating activities are represented by summary items 1, 2, 4, 5 and 6 in figure 18.4, investing activities by items 3, 8, 9 and 10, and financing activities by item 7.

The statement of cash flows prepared in accordance with IAS 7/AASB 107 is presented in figure 18.5.

Additional disclosures required by way of notes to the statement of cash flows are introduced and illustrated later in the chapter.

Figure 18.5 Statement of cash flows for Coffee House



COFFEE HOUSE
Statement of Cash Flows
for the year ended 30 June 2017

Cash flows from operating activities		
Cash receipts from customers (Item 1)	$ 942 000	
Cash paid to suppliers and employees (Items 2, 4, 5, 6)	(818 000)	
Net cash from operating activities		$124 000
Cash flows from investing activities		
Purchase of investments (Item 10)	(20 000)	
Payment for equipment (Item 8)	(80 000)	
Proceeds from sale of equipment (Item 9)	6 000	
Interest received (Item 3)	2 100	
Net cash used in investing activities		(91 900)
Cash flows from financing activities		
U. Drink, Drawings	(40 000)	
Net cash used in financing activities		(40 000)
Net increase (decrease) in cash and cash equivalents		(7 900)
Cash and cash equivalents at beginning of period (Item 11)		50 000
Cash and cash equivalents at end of period (Item 12)		$ 42 100

Analysis of financial statements

A statement of cash flows can be prepared also by using comparative statements of financial position/balance sheets for successive periods, the statement of profit and loss and other comprehensive income/income statement and the statement of changes in equity of the entity, together with additional information extracted from the accounting records of the entity. The internal financial statements prepared by an entity, as illustrated in chapter 4, are used in this book as the basis for preparation of the statement of cash flows.

Comparative statements of financial position (or balance sheets) for 2016 and 2017, and the income statement and statement of changes in equity for the year ended 30 June 2017, as prepared for internal purposes, are shown in figure 18.6.

Figure 18.6 Financial statements of Coffee House

COFFEE HOUSE
Income Statement
for the year ended 30 June 2017

INCOME		
Revenue:		
Sales revenue		$ 960 000
Interest revenue on investments		2 000
		962 000
EXPENSES		
Cost of sales	$672 000	
Wages and salaries expense	130 000	
Insurance expense	16 000	
Loss on sale of equipment	4 000	
Depreciation expense – plant and equipment	40 000	
Other expenses	22 000	884 000
PROFIT		$ 78 000

COFFEE HOUSE
Comparative Statements of Financial Position

	30 June 2016	30 June 2017
ASSETS		
Cash at bank	$ 50 000	$ 42 100
Accounts receivable	86 000	104 000
Inventory	104 000	100 000
Prepaid insurance	10 000	6 000
Interest receivable	300	200
Investments	20 000	40 000
Plant and equipment	360 000	400 000
Accumulated depreciation – plant and equipment	(90 000)	(100 000)
	$540 300	$ 592 300
LIABILITIES AND EQUITY		
Accounts payable	$ 64 000	$ 76 000
Wages and salaries payable	8 000	12 000
Other expenses payable	6 000	4 000
U. Drink, Capital	462 300	500 300
	$540 300	$ 592 300

COFFEE HOUSE
Statement of Changes in Equity
for the year ended 30 June 2017

	Capital
Balance at 1/7/16	$ 462 300
Profit for the period	78 000
Drawings	(40 000)
Balance at 30/6/17	$ 500 300

In addition, an analysis of the year's activities reveals that the following events took place (ignore GST).

- Equipment that had cost $40 000 and was written down to a carrying amount of $10 000 was sold for $6000 cash. New equipment purchased during the year for cash amounted to $80 000.
- All additional investments purchased were paid for in cash.
- U. Drink withdrew $40 000 in cash for the year, as shown in the statement of changes in equity.

Income tax is ignored in this illustration as it is a sole trader, but such tax paid is discussed in more detail later in the chapter. Assume the business rents the premises but owns the plant and equipment used on the premises.

The cash flows derived by analysing financial statements should be the same as for those obtained by direct analysis and summation of the entity's cash flows. In preparing the statement of cash flows from an analysis of financial statements of Coffee House, these steps are followed.

Step 1: Work out net cash from operating activities, disclosed according to the requirements of IAS 7/AASB 107. This requires separate calculations of the following items under the direct method, as encouraged by IAS 7/AASB 107:
(a) cash receipts from customers
(b) cash paid to suppliers and employees
(c) other expense items affecting cash flows.

Step 2: Work out net cash used in investing activities. As with step 1, each item must be calculated individually.

Step 3: Work out net cash used in financing activities. Individual calculations of each item are needed.

Step 4: Work out net cash and cash equivalents increase (decrease) for the period.

Step 5: Reconcile cash and cash equivalents at the end of the year to that at the beginning of the period.

Note that, under the direct method, each individual item in the statement of cash flows must be generated from the information available.

The data provided in figure 18.6 in relation to Coffee House are now used to illustrate the preparation of the statement of cash flows from financial statements and other information.

Step 1: Cash flows from operating activities

Step 1 requires the net cash flows resulting from the cash inflows and cash outflows generated by operating activities to be determined. Generally there are two methods that can be used — the direct method and the indirect method.

Under the ***direct method***, major classes of revenues are shown as gross cash inflows from operations, and major classes of expenses are reported as gross cash outflows from operations. The difference between the cash inflows from revenues and cash payments for expenses represents the net cash flow from operating activities. The information necessary to determine the operating cash flows is obtained by adjusting sales, cost of sales and other items in the income statement for non-cash items and items that are not related to operating activities. The main advantage of the direct method is that it presents a summary of the major categories of operating cash inflows and outflows that can be traced to the cash records of the entity. Knowledge of operating cash flows in past periods may be useful in estimating future operating cash flows.

The ***indirect method*** does not show the major classes of operating cash inflows and cash outflows. Under this method, the accrual-basis profit is adjusted to a cash-basis profit by making adjustments for non-cash items used in the determination of profit. Added back to profit are the effects of all deferrals of cash inflows and outflows, and deducted are all accruals of expected future cash inflows and outflows. The deferrals and accruals of future cash flows are reflected in the changes in the balance of assets and liabilities relating to operating activities. The indirect method is also referred to as the ***reconciliation method***, and is similar to preparing the reconciliation note required by AASB 107 when the direct method is used in the statement. The indirect method is illustrated later in the chapter.

The direct method is the approach favoured by IAS 7/AASB 107 in the statement of cash flows, although either method is permitted. The direct method is favoured because it is argued that it provides information not otherwise available in the other financial statements and a more reliable basis for estimating future cash flows from operations, whereas the indirect method provides only the net cash flow figures, with no indication of inflows/outflows of individual items of operating activities.

In order to determine net cash from operating activities under the direct method, it is necessary to convert items used in determining profit under the accrual basis to a cash basis. To make the conversion, the relationship between the effect of operating transactions on accrual-basis profit and cash movements within the entity must be considered. Thus, the different classes of accrual-basis revenues are adjusted to reflect the resulting cash inflows. Accrual-basis sales and other revenues are adjusted to provide cash receipts from customers. Accrual-basis expenses such as cost of sales, wages and salaries, and other expenses for services are adjusted to reflect the cash outflows for various classes of operating activities such as:

- cash paid to suppliers for inventory purchases, cash paid to employees for labour, and cash paid to suppliers for other goods and services such as office supplies, advertising, electricity and similar services
- cash paid to lenders for interest
- cash paid for income tax.

Note that in the conversion of accrual-basis revenues and expenses, certain items, such as depreciation, amortisation and impairment of non-current assets (which represent 'book' entries with no effects on cash flows) and gains (losses) on non-current assets disposed of, are excluded.

The difference between cash inflows from most revenue transactions and cash outflows for most expenses represents the net cash flow from operating activities. Having introduced the principles on which the conversion process is based, the direct method is now illustrated using the information supplied for Coffee House in figure 18.6 (p. 760), including the additional information.

Cash receipts from customers

Under accrual accounting, credit sales are recognised by a debit to accounts receivable and a credit to sales revenue at the time each sale is made. Under the cash basis, revenue is not recognised until cash is received. The conversion of accrual-basis sales revenues to cash received from customers is made by considering the beginning and ending balances in accounts receivable as follows:

Accrual-basis sales	+ Beginning accounts receivable – Ending accounts receivable	= Cash receipts from customers

Alternatively, this general principle can be stated in terms of changes in the balances of accounts receivable over the period and is:

Accrual-basis sales	+ Decrease in accounts receivable *or* – Increase in accounts receivable	= Cash receipts from customers

Coffee House's comparative statements of financial position data show that accounts receivable on 30 June 2016 and 2017 were $86 000 and $104 000 respectively. Thus, cash receipts from customers can be determined as follows:

Accrual-basis sales	$ 960 000
Add: Beginning accounts receivable	86 000
Total cash collectable from customers	1 046 000
Less: Ending accounts receivable	104 000
Cash receipts from customers	$ 942 000

Alternatively, since there was an increase in accounts receivable of $18 000, cash received is less than accrual-basis sales. Therefore, cash receipts from customers are calculated as:

$$\$960\,000 - \$18\,000 = \$942\,000$$

As a further alternative, cash receipts from customers can be calculated by reconstructing the Accounts Receivable account:

Accounts Receivable

1/7/16	Beginning Balance	86 000	**30/6/17**	**Cash**	**942 000**
30/6/17	Sales	960 000	30/6/17	Ending Balance	104 000
		1 046 000			1 046 000

Cash paid to suppliers and employees

Under the standard, the cash outflows for purchases, labour and other services are grouped under the broad heading of 'Cash paid to suppliers and employees' (***except*** for items that must be specifically disclosed — interest paid and income tax paid). To determine this outflow, it is necessary to make separate calculations for payments made for purchases and other expenses. The results, except for the special items mentioned above, are then combined into one figure to be disclosed in the statement of cash flows. Each of these components is determined from the information in figure 18.6 (p. 760) for Coffee House.

Cash paid to suppliers for purchases. Under accrual accounting, purchases of inventory on credit are recognised by a debit to the Inventory account (in a perpetual system) and a credit to the Accounts Payable account at the time of purchase. Under the cash basis, purchases are not recognised until cash is paid. To ascertain cash paid for purchases, the accrual-basis cost of sales is adjusted for the change in inventory over the period to determine the accrual-basis purchases. This figure is then adjusted for the change in the balance of accounts payable to arrive at the cash-basis purchases for the period. Thus, to convert from accrual-basis cost of sales to cash paid to suppliers for purchases, two adjustments must be made for the changes during the period in the Inventory account and Accounts Payable account as follows:

Accrual-basis cost of sales	− Beginning inventory	+ Ending inventory	= Accrual-basis purchases

Accrual-basis purchases	+ Beginning accounts payable	− Ending accounts payable	= Cash paid to suppliers for purchases

Again, these general formulas can be stated in terms of changes in the balances of inventory and accounts payable over the period:

Accrual-basis cost of sales	+ Increase in inventory *or* − Decrease in inventory	= Accrual-basis purchases

Accrual-basis purchases	+ Decrease in accounts payable *or* − Increase in accounts payable	= Cash paid to suppliers for purchases

Coffee House's comparative statements of financial position in figure 18.6 show that, on 30 June 2016 and 30 June 2017, inventory balances were $104 000 and $100 000 respectively, and

accounts payable balances were $64 000 and $76 000 respectively. Thus, cash paid to suppliers for purchases during the year ended 30 June 2017 can be calculated as follows:

Accrual-basis cost of sales	$ 672 000

Less: Beginning inventory	104 000
Add: Ending inventory	100 000
Accrual-basis purchases for the year	668 000
Add: Beginning accounts payable	64 000
Less: Ending accounts payable	76 000
Cash paid to suppliers for purchases	$ 656 000

The same result is obtained using changes in balances over the period. The conversion process can be seen clearly by reconstructing the Inventory and Accounts Payable accounts:

Inventory

30/6/16	Beginning Balance	104 000	30/6/17	Cost of Sales	672 000
30/6/17	Purchases	668 000	30/6/17	Ending Balance	100 000
		772 000			772 000

Accounts Payable

30/6/17	**Cash Payments**	**656 000**	30/6/16	Beginning Balance	62 000
30/6/17	Ending Balance	76 000	30/6/17	Purchases	668 000
		732 000			732 000

Cash paid to suppliers of services and labour. Under accrual accounting, expenses are recognised when resources are consumed. Some expenses are prepaid, some are paid during the current financial year as they are incurred, and some are accrued (payable) at the end of the financial year. Under the cash basis, expenses are recognised only when they are paid for. The relationship between various expenses and cash payments depends on the related changes in prepaid expenses and/or accrued expenses. Thus, the conversion of accrual-basis expenses to cash-basis expenses may be made as follows:

Accrual-basis expenses	− Beginning prepaid expense + Ending prepaid expense *and* + Beginning accrued expense − Ending accrued expense	= Cash paid for services

Alternatively, the above conversion process can be expressed in terms of changes to the balances of prepaid and accrued expenses, as follows:

Accrual-basis expenses	+ Increase in prepaid expense *or* − Decrease in prepaid expense	= Cash paid for services
	+ Decrease in accrued expense *or* − Increase in accrued expense	

Coffee House’s comparative statements of financial position (figure 18.6, p. 760) show that the 30 June 2016 and 30 June 2017 balances in the Prepaid Insurance account were $10 000 and $6000

respectively. The income statement shows accrual-basis insurance expense as $16 000. Thus, the conversion of accrual-basis insurance expense to cash paid for insurance is:

Accrual-basis insurance expense	$ 16 000
Less: Beginning prepaid insurance	(10 000)
Add: Ending prepaid insurance	6 000
Payment for insurance	$ 12 000

The same result is obtained if the change in the balance of prepaid insurance is adjusted against the accrual-basis insurance expense, as follows:

$ 16 000 − $4000 (decrease in prepaid insurance) = $12 000

The income statement of Coffee House (figure 18.6, p. 760) reveals that wages and salaries expense was $130 000, and other expenses were $22 000. Reference to the comparative statements of financial position of the entity shows liabilities for two accrued expenses: wages and salaries payable and other expenses payable. Accrued wages and salaries payable on 30 June 2016 and 30 June 2017 amounted to $8000 and $12 000 respectively; the amounts of accrued other expenses payable on those dates were $6000 and $4000 respectively. Thus, the conversion of accrual-basis wages and salaries expense and other expenses to cash paid for expenses is made as follows:

	Wages and salaries expense	**Other expenses**
Accrual-basis expense	$ 130 000	$ 22 000
Add: Beginning accrued expense	8 000	6 000
Less: Ending accrued expense	(12 000)	(4 000)
Cash paid for services	$ 126 000	$ 24 000

The same result is achieved if changes in the balance of accrued expenses are used:

	Wages and salaries expense	**Other expenses**
Accrual-basis expense	$ 130 000	$ 22 000
Add: Decrease in accrued expense		2 000
Less: Increase in accrued expense	(4 000)	
Cash paid for services	$ 126 000	$ 24 000

At this point, it is possible to summarise the items to appear in the cash flows from operations as 'Cash paid to suppliers and employees'. This is determined by summarising payments to suppliers for purchases, and payments for services as set out below:

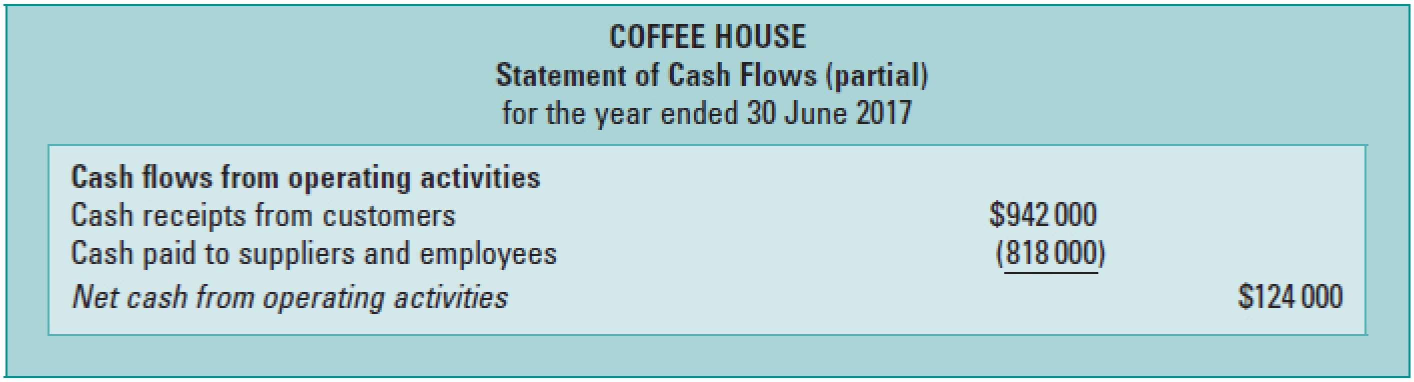
Cash paid to suppliers and employees	$ 672 000
Cash paid to suppliers for purchases	$ 656 000
Cash paid for insurance	12 000
Cash paid for wages and salaries	126 000
Cash paid for other expenses	24 000
	$ 818 000

You should now realise that, in the process of converting accrual-basis expenses used in determining profit, all the cash flows associated therewith are reported as one item — cash paid to suppliers and employees. The only exception to this general aggregation process is the requirement to disclose certain individual items of cash flows in the statement. These were mentioned previously and included cash paid for interest and cash paid for income tax. Note, again, that although interest and other borrowing costs are paid for a financing 'service', they are reported in the income statement as an expense (or as part of the cost of a qualifying asset under IAS 23/AASB 123 ***Borrowing Costs***), and treated separately because they need to be disclosed separately under the standard. Interest paid and income tax paid do not apply in this simple illustration for Coffee House. Further discussion of cash flows from other revenues and expenses is provided below.

Note that the income statement of Coffee House includes the item depreciation expense. This item is not relevant for the cash flows from operating activities because depreciation of non-current assets is a book entry and does not represent a cash flow.

The calculations necessary for step 1 are now complete. It is possible to present the cash flows from operating activities section of the statement of cash flows (based on the direct method) as shown in figure 18.7.

Figure 18.7 Cash flows from operating activities (direct method)



COFFEE HOUSE
Statement of Cash Flows (partial)
for the year ended 30 June 2017

Cash flows from operating activities		
Cash receipts from customers	$942 000	
Cash paid to suppliers and employees	(818 000)	
Net cash from operating activities		$124 000

Other revenue and expense items. Apart from the sale of goods and rendering of services, IAS 7/ AASB 107 mentions examples of other revenue items that are generally regarded as cash flows from operating activities if they are derived primarily from the main revenue-producing activities of the entity. The standard also provides examples of cash flows from expenses incurred in determining the entity's profit or loss. These revenue and expense items that result in cash flows from operating activities include:

- cash receipts from royalties, fees, commissions
- cash receipts of an insurance entity for premiums and cash payments for claims, annuities and other policy benefits
- cash payments and refunds of income tax
- cash receipts and payments from contracts held for dealing or trading purposes.

Not included in this list are the cash receipts and payments from interest and dividends. Further discussion of these items is provided in the standard, which requires separate disclosure of interest received, interest paid, dividends received and dividends paid. The standard permits a choice of classification as operating, investing or financing activities, but requires the classification to be consistent from period to period.

In Illustrative Example A accompanying the standard (refer to figure 18.1, p. 754), cash flow for interest paid is treated as an operating activity, whereas interest received and dividends received are treated as investing activities (even though they do not satisfy the definition of investing activities). Presumably this classification is used because interest and dividends received represent the results of financing and investing activities. Paragraph 33 of the standard explains:

> Interest paid and interest and dividends received are usually classified as operating cash flows for a financial institution. However, there is no consensus on the classification of these cash flows for other entities. Interest paid and interest and dividends received may be classified as operating cash flows because they enter into the determination of net profit or loss. Alternatively, interest paid and interest and dividends received may be classified as financing cash flows and investing cash flows respectively, because they are costs of obtaining financial resources or returns on investments.

In the exercises and problems attached to this chapter, interest paid is treated as an operating activity and disclosed separately, and interest received and dividends received are shown as investing activities, consistent with Illustrative Example A. For dividends paid by a company, or drawings paid by a sole trader business or a partnership, the standard allows the alternative of showing them separately either as a financing cash flow or as an operating cash flow.

Although not specifically mentioned in the cash flow standard, cash flows received and paid under leases are to be treated as operating cash flows in accordance with the standard on leases.

BUSINESS KNOWLEDGE

Lease of your worries

Leasing can be an excellent path to take, but beware the pitfalls. Thirty-thousand dollars for a coffee machine. Another $20 000 for a fridge to keep the ice cream cold. Then there's the phone system, point-of-sales equipment and delivery van.

With big start-up costs and low capital, leasing equipment is usually the best option for small businesses. It means they don't have their capital tied up in depreciating assets. But they need to do their research. Another option is buying secondhand, which has its own shortcomings because you could be buying someone else's problems. However, with the hospitality industry turnover, you could snap up a bargain. Other options include renting and buying. Restaurant and Catering Industry Association chief executive John Hart says one of the biggest problems he sees is businesses signing up for contracts too quickly. 'A lot of businesses get trapped into agreements that bind them into contracts over long periods,' he says.'What happens is that because there is a desire to get a piece of equipment into place quickly because something has broken down, businesses move too quickly.' Hart says businesses need to be clear about their obligations and the cost of any agreement. He says often the cost of paying out a lease is exorbitant.

'Then you have businesses that are encouraged by their banks to put large capital items on their credit cards.' Hart says with up to 20 per cent of hospitality businesses going bust each year, the lease companies as creditors recover their outstanding money. He says with the average hospitality fitout at $92 000, there is a lot of money at stake.

Silver Chef, a stockmarket-listed equipment finance company to the small and medium business sector, says blowouts in start-up costs and lack of working capital were the two impediments to entrepreneurs starting out. Silver Chef's latest Hospitality Industry Success Index Report found that 83 per cent of businesses say starting a hospitality business cost more than they anticipated. 'Time and time again we see businesses underestimating the capital requirements of establishing a new business. There are countless hidden costs which stack up and have the potential to turn your dream into a nightmare,' Silver Chef executive officer Charles Gregory says.

Source: Excerpt from Heaney, C 2013, 'Lease of your worries', ***Herald Sun***, 30 September, p. 27.

Step 2: Cash flows from investing activities

Acquisition and disposal of non-current assets

Step 2 requires a determination of the cash inflows and cash outflows from investing activities relating to the acquisition and disposal of non-current assets. This step involves an examination of any changes in these long-term assets in the light of relevant transaction data to determine the effects on cash flows.

In the illustration for Coffee House, an analysis of the statement of financial position (figure 18.6, p. 760) reveals that the following changes in long-term assets occurred — investments increased by $20 000 and plant and equipment increased by $40 000. Transaction data on the investment increase indicate that additional investments of $20 000 were paid for in cash. Additional transaction data on plant and equipment indicate that new equipment was purchased for $80 000 cash during the reporting period. Old equipment costing $40 000 with a carrying amount of $10 000 was sold for $6000 cash. This information can be obtained from reconstructing the Plant and Equipment account as follows:

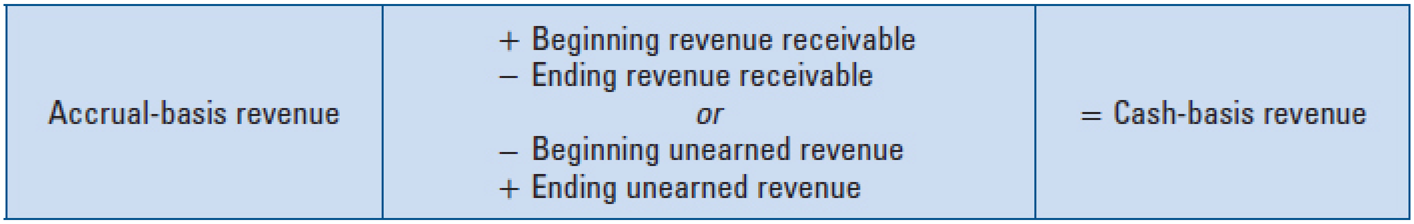
Plant and Equipment

30/6/16	Beginning Balance	360 000	30/6/17	Cost of Plant Sold	40 000
30/6/17	Purchases	80 000	30/6/17	Ending Balance	400 000
		440 000			440 000

The only cash flow resulting from the disposal of the equipment is the $6000 proceeds received. Loss on sale of the equipment of $4000 (see the income statement in figure 18.6) is a non-cash book entry and therefore excluded when preparing the statement of cash flows.

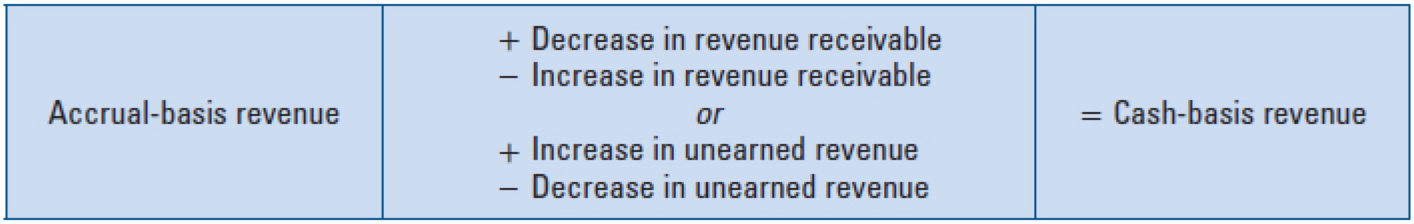
Interest and dividends received

As previously mentioned, cash inflows from revenue items (such as interest received and dividends received from investments in other entities) generally need to be disclosed separately, either as an operating activity or as an investing activity. For purposes of the current illustration, the income statement of Coffee House (figure 18.6) shows a revenue item of ‘interest received from investments’ that must be disclosed separately. The conversion of accrual-basis revenue received to cash-basis revenue received for both interest revenue receivable or unearned interest revenue is done as follows:



Accrual-basis revenue	+ Beginning revenue receivable − Ending revenue receivable *or* − Beginning unearned revenue + Ending unearned revenue	= Cash-basis revenue

The formula can be expressed also on the basis of changes to the balances of revenue receivable and unearned revenue, i.e. revenue received in advance, as follows:



Accrual-basis revenue	+ Decrease in revenue receivable − Increase in revenue receivable *or* + Increase in unearned revenue − Decrease in unearned revenue	= Cash-basis revenue

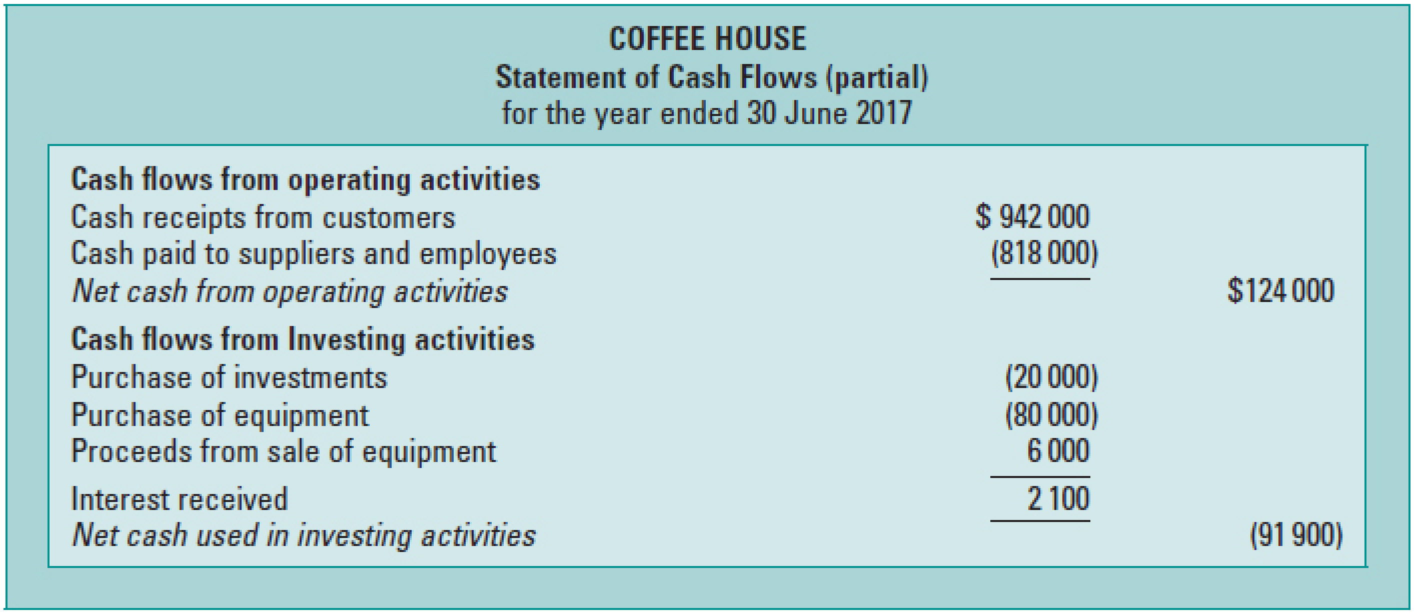
The income statement of Coffee House (figure 18.6, p. 760) shows accrual-basis interest revenue as $2000. The comparative statements of financial position show that interest receivable at 30 June 2016 and 30 June 2017 was $300 and $200 respectively. Thus, the conversion of accrual-basis interest revenue to cash-basis interest received is as follows:

Accrual-basis interest revenue	$ 2 000
Add: Beginning interest receivable	300
Less: Ending interest receivable	(200)
Cash-basis interest received	$ 2 100

Using the approach based on changes in the balances of the interest receivable, the cash-basis interest received would be $2000 + $100 (decrease in interest receivable) = $2100.

Those investing activities that resulted in cash flows during the period are then disclosed separately as inflows and outflows and the net cash used in investing activities is determined. The statement of cash flows to this point, including the net cash flows from operating activities and investing activities, appears in figure 18.8. Step 2 has now been completed.

Figure 18.8 Statement of cash flows (showing cash flows from operating activities and investing activities)



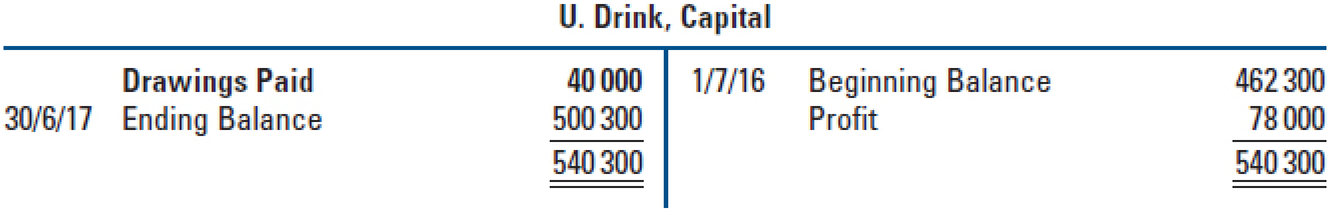
COFFEE HOUSE
Statement of Cash Flows (partial)
for the year ended 30 June 2017

Cash flows from operating activities		
Cash receipts from customers	$ 942 000	
Cash paid to suppliers and employees	(818 000)	
Net cash from operating activities		$124 000
Cash flows from Investing activities		
Purchase of investments	(20 000)	
Purchase of equipment	(80 000)	
Proceeds from sale of equipment	6 000	
Interest received	2 100	
Net cash used in investing activities		(91 900)

Step 3: Cash flows from financing activities

Step 3 involves determining cash flows from financing activities, i.e. those activities that relate to changes in the composition and size of the equity capital and borrowings of the entity. The initial step is to analyse the comparative statements of financial position and the statement of changes in equity for changes in non-current liabilities and equity items. These changes are then assessed in light of additional relevant transaction data to determine changes that resulted in cash flows.

An examination of the comparative statements of financial position and the statement of changes in equity of Coffee House (figure 18.6, p. 760) reveals that there were no non-current liabilities and that capital has increased by $38 000. Profit shown in the income statement would have caused an increase of $78 000, but the statement of changes in equity also reveals that drawings of $40 000 are paid in cash. These two items affect capital by the amount of the change. This can be seen by reconstructing the Capital account, as follows:



U. Drink, Capital

	Drawings Paid	40 000	1/7/16	Beginning Balance	462 300
30/6/17	Ending Balance	500 300		Profit	78 000
		540 300			540 300

Furthermore, no additional capital was contributed by the owner. The only cash flow resulting from this analysis is the cash drawings paid. Cash flows and net cash from financing activities can then be added to the statement of cash flows (see figure 18.9). This completes step 3.

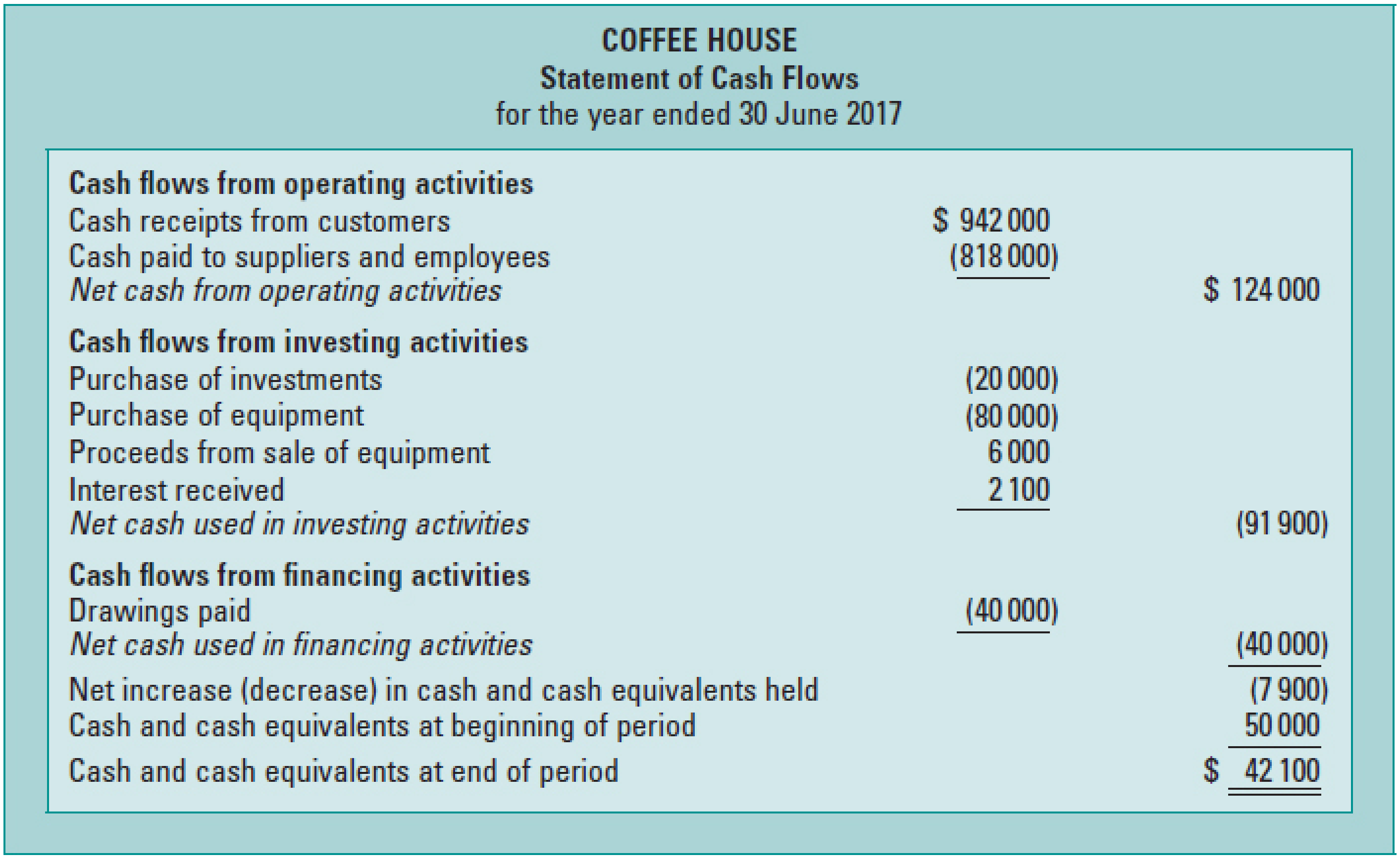
Step 4: Ascertain net cash and cash equivalent increase (decrease)

Step 4 involves determining the net cash flow for the reporting period, which is obtained by adding the net cash flows from each category of operating, investing and financing activities. Figure 18.9 shows that the net cash and cash equivalent flow for the year was a decrease of $7900.

Step 5: Reconcile cash and cash equivalents at end with that at beginning

Step 5 involves reconciling the cash and cash equivalents at the beginning and at the end of the period. This change in cash is accounted for by the net cash flows for the year. The final statement of cash flows after completing steps 1 to 5 is now as shown in figure 18.9.

Figure 18.9 Coffee House — statement of cash flows



COFFEE HOUSE
Statement of Cash Flows
for the year ended 30 June 2017

Cash flows from operating activities		
Cash receipts from customers	$ 942 000	
Cash paid to suppliers and employees	(818 000)	
Net cash from operating activities		$ 124 000
Cash flows from investing activities		
Purchase of investments	(20 000)	
Purchase of equipment	(80 000)	
Proceeds from sale of equipment	6 000	
Interest received	2 100	
Net cash used in investing activities		(91 900)
Cash flows from financing activities		
Drawings paid	(40 000)	
Net cash used in financing activities		(40 000)
Net increase (decrease) in cash and cash equivalents held		(7 900)
Cash and cash equivalents at beginning of period		50 000
Cash and cash equivalents at end of period		$ 42 100

LEARNING CHECK

- ☐ Cash flows from operating activities are determined under the direct method initially by calculating cash receipts from customers, and cash paid to suppliers and employees. These amounts can be calculated by adjusting revenues and expenses by changes in the balances of receivables, payables, inventory, prepayments and accruals, or by reconstructing appropriate accounts.
- ☐ Cash flows from investing activities are determined by adjusting the balances in non-current asset accounts to find the cash proceeds from non-current asset sales, or the payments for acquisition of such assets. This can be achieved by reconstructing the appropriate accounts.
- ☐ Cash flows from financing activities are determined by adjusting the balances in equity and non-current liability accounts to find the cash flows from money raised or money repaid on equity and borrowings. Dividends paid are usually regarded as financing activities.

18.6 Notes to the statement

LO 6 **Determine the notes to the statement of cash flows.**

Attached to the statement of cash flows as illustrated in Illustrative Example A accompanying IAS 7/AASB 107 is a series of notes providing further explanatory material, reconciling the cash flow data to information in the other financial statements.

Preparation of the following notes is illustrated in three steps.

Step A: Note to disclose the items included in the cash and cash equivalents balance at the end of the period and to reconcile this balance to cash assets in the statement of financial position.

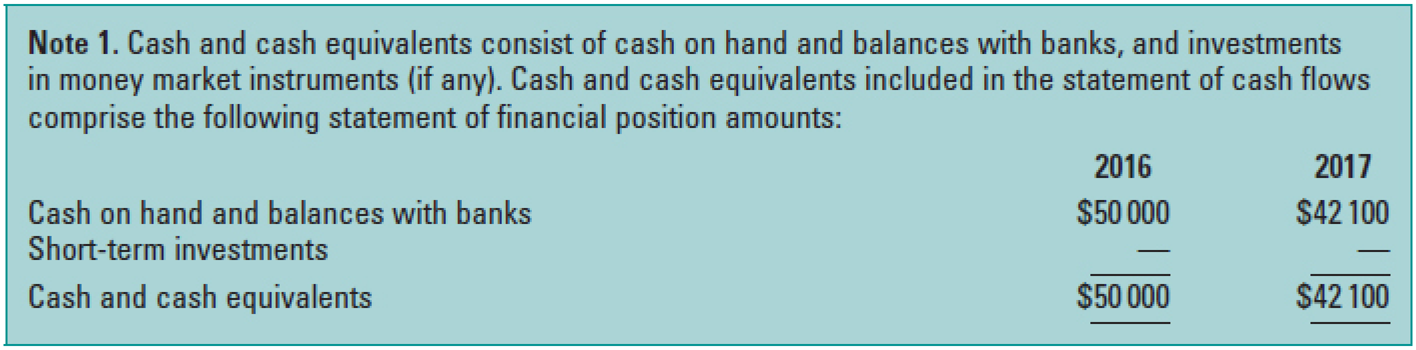
Step B: Note to reconcile the net cash used in operating activities to profit or loss. (This note is required by AASB 107 only if the direct method is used in the statement of cash flows.)

Step C: Notes to discuss non-cash financing and investing activities.

Items included in cash and cash equivalents

Step A involves the preparation of a note reconciling all items included in the concept of cash and cash equivalents used in the preparation of the statement of cash flows to the appropriate cash assets total in the statement of financial position. In Coffee House, this simply indicates the cash assets included in cash and cash equivalents, which together add to the ending balance of cash. The method of presentation is illustrated in figure 18.10.

Figure 18.10 Reconciliation of cash and cash equivalents to cash in the statement of financial position



Note 1. Cash and cash equivalents consist of cash on hand and balances with banks, and investments in money market instruments (if any). Cash and cash equivalents included in the statement of cash flows comprise the following statement of financial position amounts:

	2016	2017
Cash on hand and balances with banks	$50 000	$42 100
Short-term investments	—	—
Cash and cash equivalents	$50 000	$42 100

Reconciliation note of profit and cash flows from operating activities (indirect method)

Step B: The other major reconciliation required under the standard consists of a note to the statement reconciling the net cash used in operating activities to profit for the period as shown in the income statement. This reconciliation is much more involved than the one in step A and is explained in detail below. In essence, the process consists of determining net cash flows from operating activities using the ***indirect method***, which is briefly explained on page 761.

The reconciliation process begins with profit for the period determined under the accrual basis of accounting, adjusting for any non-operating items (e.g. gains and losses on sale of non-current assets) and all non-cash expenses and revenues to convert it to cash flows from operating activities. The principles involved in adjusting accrual-basis profit are the same as those performed on sales, cost of sales, revenues, expenses and other profit or loss items under the ***direct method*** already illustrated, ***except*** that the adjustments are applied in terms of their effects on profit and not on the individual items that together determine the profit. The conversion process is essentially a four-stage process.

Step 1: Subtract from (add to) profit the gains (losses) on sale of any non-current assets disposed of (these relate to investing activities and are therefore eliminated).

Step 2: Add back to the profit items used in determining profit that represent write-downs of non-current assets. These include depreciation and amortisation of non-current assets.

Step 3: Make adjustments for investment revenues such as interest and dividends received (which are reported as cash flows from investing activities).

Step 4: Add back to or subtract from profit any changes in balances that occurred over the period to accounts receivable, inventory, accounts payable, prepaid expenses, accrued expenses and unearned revenues. Changes to current assets and current liabilities are included ***except*** those items included in cash and cash equivalents and items that are unrelated to the provision of goods and services, e.g. a non-trade receivable such as cash loans to employees and those items representing prepayments and accruals on interest and dividends regarded as investment income.

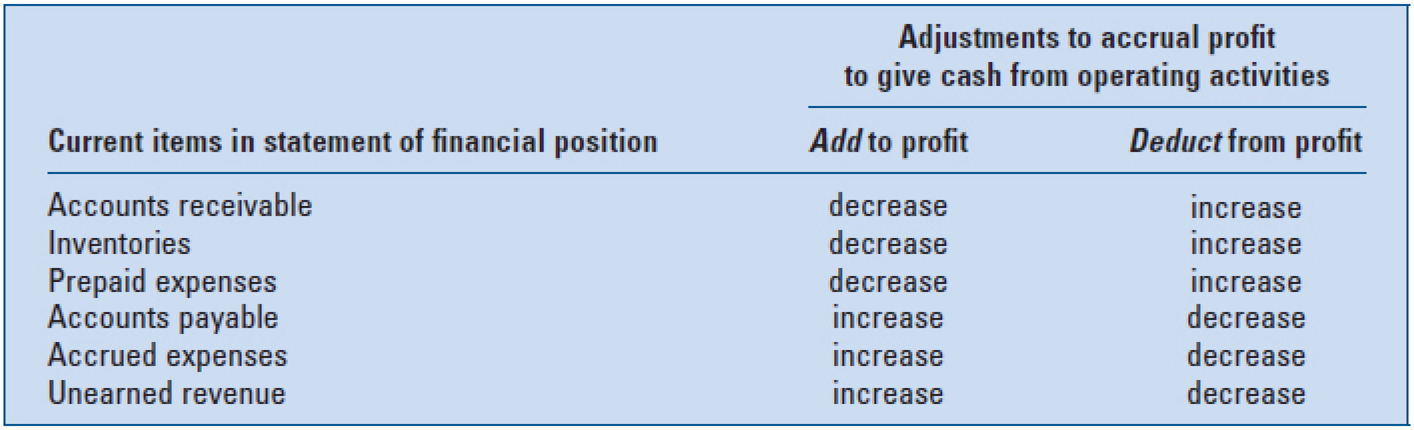
A suggested format for the reconciliation note is set out below:

Profit for the period	$ X
Subtract: Gains on sale of non-current assets (Stage 1)	(X)
Add: Depreciation and other write-downs (Stage 2)	(X)
Subtract: Investment income (Stage 3)	(X)
Add/subtract: Changes in current assets and liabilities (Stage 4)	X
Net cash from operating activities	$ X

The changes in current assets and liabilities have already been referred to when converting accrual-basis activities such as sales revenue and cost of sales to cash-basis activities. In the reconciliation process, the effect of the changes in balances must be evaluated in terms of their impact on converting accrual-basis profit to a cash basis.

Figure 18.11 summarises how accrual profits are adjusted for changes in balances of current assets and current liabilities.

Figure 18.11 Adjustment of non-cash current assets and current liabilities

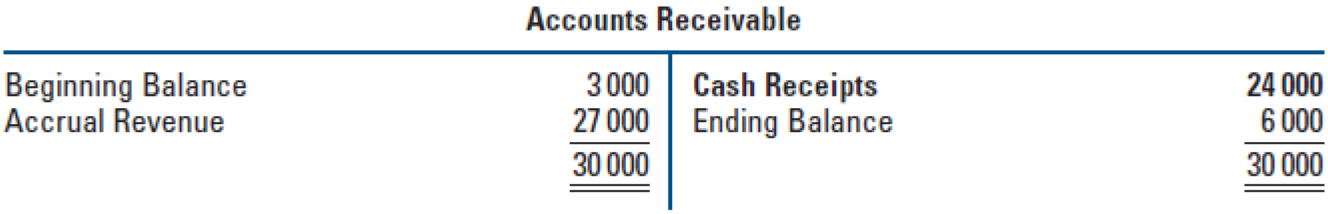


	Adjustments to accrual profit to give cash from operating activities	
Current items in statement of financial position	***Add*** **to profit**	***Deduct*** **from profit**
Accounts receivable	decrease	increase
Inventories	decrease	increase
Prepaid expenses	decrease	increase
Accounts payable	increase	decrease
Accrued expenses	increase	decrease
Unearned revenue	increase	decrease

Why particular changes in balances are added back or deducted from profit in the reconciliation note is explained below.

Accounts receivable changes

If the accounts receivable balance decreases over the financial year, revenues recorded on an accrual basis (e.g. sales) are lower than cash receipts from sales. Since revenues on an accrual basis used to determine accrual-basis profit are lower than cash-basis revenues, and revenues have the effect of increasing profit, then profit must be increased to arrive at cash from operating activities. Conversely, if the accounts receivable balance shows an increase over the period, revenues recorded on an accrual basis are higher than cash receipts from sales. The accrual-basis revenue is used in arriving at profit, and therefore profit is higher than the cash receipts from revenue. Therefore, the profit must be decreased for the increase in accounts receivable. The principle used above can be seen readily from the hypothetical Accounts Receivable account overleaf.



Accounts Receivable

Beginning Balance	3 000	Cash Receipts	24 000
Accrual Revenue	27 000	Ending Balance	6 000
	30 000		30 000

If the balance increases by $3000 as shown, accrual-basis revenue must exceed cash receipts from sales.

Conversely, if the accounts receivable balance decreases over time, the accrual-basis revenue is less than cash receipts. Similar arguments can be made to cover changes in balances for prepaid expenses and revenue receivable.

Inventory changes

A change in the balance of inventories is explained by its effect on the calculation of accrual-basis purchases and cash-basis cost of sales. This is covered in the next section.

Accounts payable changes

Accounts payable balances refer to changes in the balance of accounts payable for purchases, as well as accrued expenses and unearned revenue. As previously discussed, the role of inventory changes in this process is as shown below:

Accrual-basis cost of sales	+ Increase in inventory *or* − Decrease in inventory	= Accrual-basis purchases

Accrual-basis purchases	+ Decrease in accounts payable *or* − Increase in accounts payable	= Cash paid to suppliers for purchases

The cash paid to suppliers represents the cash-basis cost of sales. Assuming no change occurs in accounts payable, an increase in inventory has the effect of making accrual-basis cost of sales less than cash-basis cost of sales. Therefore, the inventory increase must be deducted from accrual-basis profit to calculate the cash basis. Similar reasoning establishes that if inventory decreases over a period, the decrease is added back to accrual-basis profit to obtain cash from operations.

If accounts payable relate to purchases of goods, the effect of a change on the balances over a period can be seen readily by referring to the previous paragraph on inventory changes. Assuming inventory did not change, an increase in accounts payable indicates that accrual-basis cost of sales is higher than cash paid to suppliers or cash-basis cost of sales. Therefore, the increase in accounts payable must be added to accrual-basis profit to determine cash from operating activities. When an entity also has other expenses and unearned revenue, the analysis is the same. If the accounts payable balance increases over the reporting period, accrual-basis expenses must be higher than cash-basis expenses since some expenses incurred during the period have not been paid for. This becomes evident from the hypothetical Accounts Payable account shown below.

Accounts Payable

Cash Paid	**13 500**	Beginning Balance	3 000
Ending Balance	4 500	Accrual Expenses/Purchases	15 000
	18 000		18 000

Since accounts payable have increased by $1500 over the period, accrual-basis expenses/purchases ($15 000) must be greater than cash-basis expenses ($13 500). Accrual-basis profit therefore would be lower than cash-basis profit.

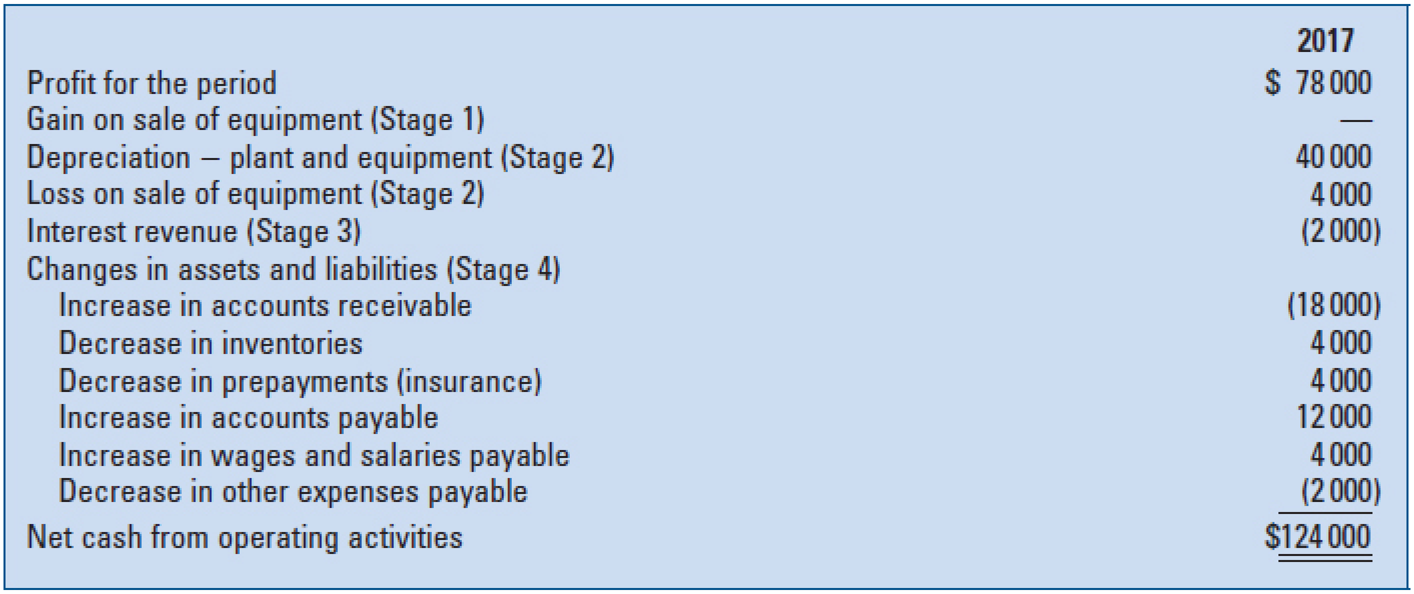
In summary, if accounts payable increase, profit for the period needs to be adjusted by adding back the increase in accounts payable, and decreases in accounts payable balances must be deducted from profit to arrive at cash flows from operating activities.

Using figure 18.11, it is now possible to prepare the reconciliation of net cash from operating activities to profit for Coffee House. The reconciliation is shown in figure 18.12 (p. 773).

Note that the first four items in the reconciliation are obtained from the income statement, and changes in assets and liabilities are obtained from the comparative statements of financial position. Note also that the net cash from operating activities ($124 000) in figure 18.12 agrees with the amount in the statement of cash flows in figure 18.9 (p. 769).

Because the indirect method of calculating cash flows from operating activities is also permissible in Australia, the contents of this reconciliation note could be disclosed in the statement of cash flows instead of in the notes. If the note is presented in the statement, however, it will require some minor modifications so that such items as interest paid and interest received (if included in operating activities) could be disclosed separately as cash flows. The same applies to income tax paid, which must be disclosed separately (see later in the chapter). To accomplish this, simply begin the note with ‘profit before tax’ rather than with ‘profit for the period’, and then disclose interest paid/received and tax paid at the end to arrive at net cash from operating activities. In the above example for Coffee House, interest paid and tax paid did not occur. Interest received was treated as an investing activity; hence, interest revenue is eliminated in the reconciliation note in figure 18.12 by deducting it from profit. The indirect method is shown in more detail in the comprehensive example later in the chapter.

Figure 18.12 Reconciliation of net cash from operating activities to profit — indirect method



	2017
Profit for the period	$ 78 000
Gain on sale of equipment (Stage 1)	—
Depreciation – plant and equipment (Stage 2)	40 000
Loss on sale of equipment (Stage 2)	4 000
Interest revenue (Stage 3)	(2 000)
Changes in assets and liabilities (Stage 4)	
Increase in accounts receivable	(18 000)
Decrease in inventories	4 000
Decrease in prepayments (insurance)	4 000
Increase in accounts payable	12 000
Increase in wages and salaries payable	4 000
Decrease in other expenses payable	(2 000)
Net cash from operating activities	$124 000

Other notes

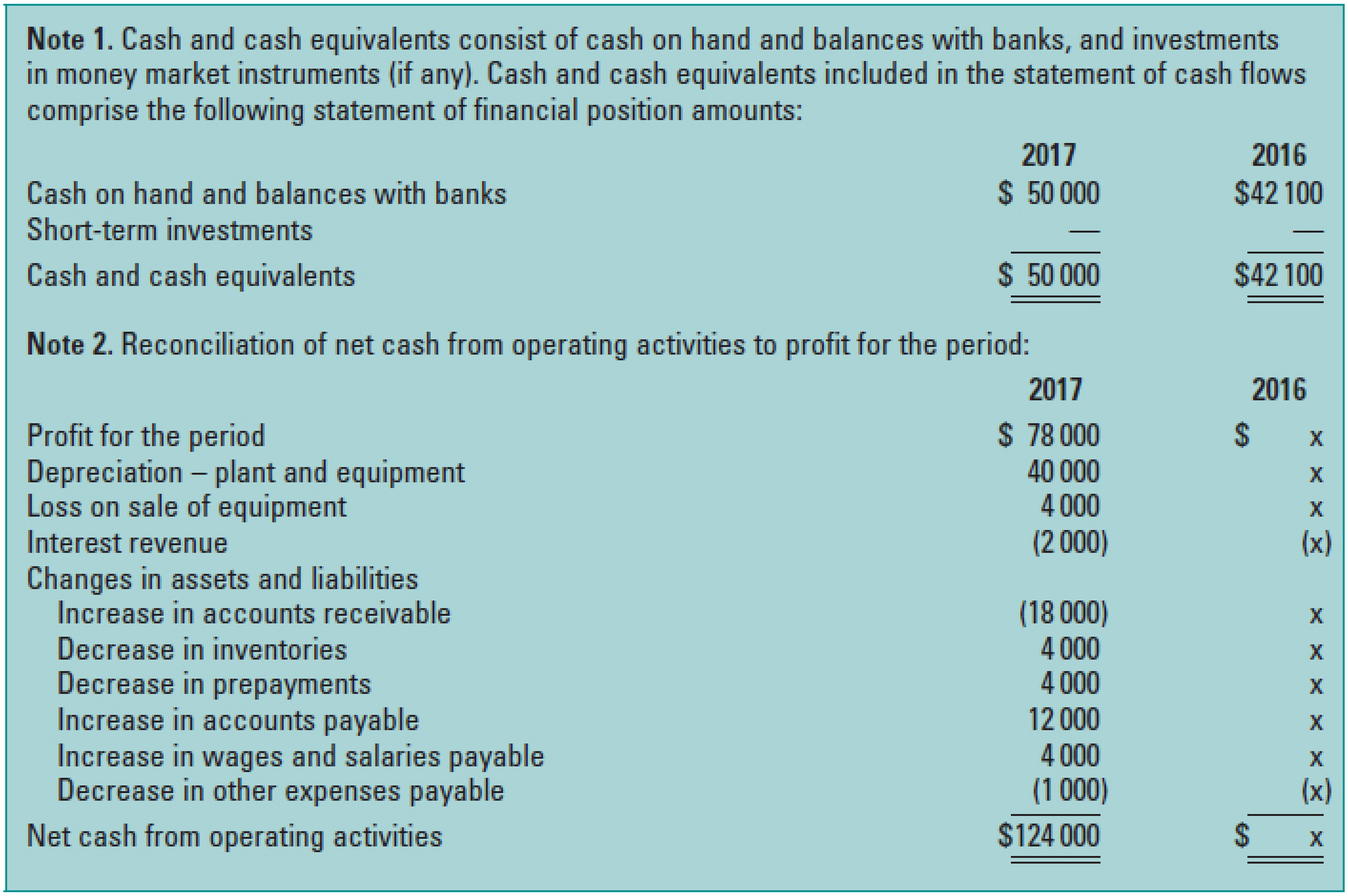
Step C requires an examination of the accounting records to identify other transactions and events that are relevant to an assessment of the financing and investing activities of an entity. Such transactions or events include non-cash financing and investing activities, and cash flows presented on a net cash flows basis. Such details must be disclosed under the standard.

A statement of cash flows has, as one of its major objectives, the provision of relevant information on cash flows to users about the operating, financing and investing activities of the entity. However, since the statement of cash flows reports only the effects of transactions on cash and cash equivalents as defined by the standard, some material financing and investing activities may be omitted from the statement if such transactions do not affect cash flows. Examples of non-cash transactions and events that do not result in cash flows include the conversion of long-term debt to equity, the acquisition of other entities by means of a share issue, the acquisition of non-current assets by means of debt financing (mortgage), and the acquisition of assets by entering into a finance lease. Although these types of transactions do not affect current cash flows, they are significant because their disclosure provides more complete current information about the financing and investing activities of the entity because future cash flows will be affected, such as payment of interest on debt and repayment of mortgage.

IAS 7/AASB 107 requires disclosure of non-cash financing and investing transactions and events in order to provide all relevant information about these activities. As demonstrated in Illustrative Example A to the standard, such transactions and events are disclosed by way of note to the statement of cash flows. An analysis of the entity’s transactions and other records is necessary to obtain the information to include in this note.

No disclosure of these items is required in the case of Coffee House. Total disclosure required under the standard in the case of the illustrated example is therefore the statement of cash flows shown in figure 18.9 (p. 769), together with the notes to the statement as illustrated in figure 18.13.

Figure 18.13 Notes to Coffee House's statement of cash flows



Note 1. Cash and cash equivalents consist of cash on hand and balances with banks, and investments in money market instruments (if any). Cash and cash equivalents included in the statement of cash flows comprise the following statement of financial position amounts:

	2017	2016
Cash on hand and balances with banks	$ 50 000	$42 100
Short-term investments	—	—
Cash and cash equivalents	$ 50 000	$42 100

Note 2. Reconciliation of net cash from operating activities to profit for the period:

	2017	2016
Profit for the period	$ 78 000	$ x
Depreciation – plant and equipment	40 000	x
Loss on sale of equipment	4 000	x
Interest revenue	(2 000)	(x)
Changes in assets and liabilities		
Increase in accounts receivable	(18 000)	x
Decrease in inventories	4 000	x
Decrease in prepayments	4 000	x
Increase in accounts payable	12 000	x
Increase in wages and salaries payable	4 000	x
Decrease in other expenses payable	(1 000)	(x)
Net cash from operating activities	$124 000	$ x

LEARNING CHECK

☐ Additional notes are required to be attached to the statement of cash flows including:
- a note to reconcile cash and cash equivalents to items in the statement of financial position
- a reconciliation of cash flows from operating activities to the company's profit; this note also represents an application of the indirect method to cash flows from operating activities
- a note to disclose non-cash financing and investing activities.

18.7 Advanced issues

LO 7 Identify and explain some of the more advanced issues involved in the preparation of the statement of cash flows.

The previous discussion has concentrated on the basic concepts and principles followed in the preparation of a statement of cash flows for a sole trader. In practice, if the preparation of cash flows is to be based largely on financial reports, the process is more complex. There are many involved adjustments that may need to be made in the conversion process from accrual-basis reports to the statement of cash flows. This section covers some of the more common of these adjustments.

Impact of the GST

The GST has an impact on many sole traders and companies. According to the AASB's Interpretation 1031 ***Accounting for the Goods and Services Tax (GST)***, all receivables and payables are to be stated in financial reports at amounts inclusive of the GST, as has been shown in earlier chapters. Interpretation 1031 also concludes that there is no need for separate disclosure of any cash receipts or payments of GST in the statement of cash flows. Hence, the receivables and payables of GST made by an entity are included as part of the entity's calculations of receipts from customers and payments to suppliers and employees. Nevertheless, Interpretation 1031 requires cash flows from operating activities to be reported at gross amounts, including GST.

According to Interpretation 1031, the GST Receivable and GST Payable accounts are to be regarded as affecting operating activities in the statement of cash flows even though the original transactions on which the GST is paid or collected may have resulted in investing activities. For example, an acquisition of office furniture on which GST is paid is treated as an investing activity in the statement of cash flows as far as the office furniture is concerned and as an operating activity as far as the GST is concerned. The reason for treating GST receivable and payable, as well as the payment of GST to the ATO, as operating activities is that most assets acquired are recognised in the accounting records net of GST. Hence, the balances of inventory, office furniture and other plant and equipment, and prepayments such as prepaid insurance and prepaid rent are recorded net of GST and the cash flows from investing activities are to be reported net of GST. It is only receivables and payables that include GST, according to Interpretation 1031.

In order to calculate gross cash flows from operating activities including GST, the entity needs to adjust the calculation of cash receipts from customers for the additions to the GST Payable account arising during the period (this information is available from the net credits recorded in the GST Payable account during the year), plus the GST refund from the ATO (if any). GST payable usually arises from the sale of goods and services to customers. The calculation becomes:

Accrual-basis sales and services revenue	+ Beginning accounts receivable − Ending accounts receivable **+ Additions to the GST Payable account during the period** **+ Any GST refunds from the ATO**	= Cash receipts from customers

Alternatively, cash receipts from customers may be calculated by combining the effects of the Accounts Receivable account with GST payable data, as follows (using hypothetical figures and assuming no refund of GST from the ATO):

Accounts Receivable adjusted for GST Payable

Beginning Balance (receivable)	30 000	**Cash**	**898 050**
Sales	900 000	Ending Balance (receivable)	130 950
GST Payable (from the account)	99 000		
	1 029 000		1 029 000

As a result of these calculations, the cash receipts from customers is shown ***at a gross figure as required by Interpretation 1031***. This contrasts with the cash flows from investing activities, which are shown at amounts ***net*** of GST; the GST on investing activities is included in operating activities.

If there are any unearned revenue balances (from fees not yet earned) at the beginning and end of the reporting period, they too must be adjusted in the above formula, as discussed previously on page 761.

The GST Receivable account is increased not only for purchases of inventory but also for many other transactions, including purchases of supplies, electricity and gas, telephone and telecommunications services, insurance, plant and equipment, and so on. However, GST is not paid on wages or on most financial services. When calculating the cash paid to suppliers and employees for the statement of cash flows using an analysis of financial statements at the end of the reporting period, it is impossible to split the GST Receivable account into its various components based on source. Hence, as a compromise, the additions to the GST Receivable account in the current period should be adjusted totally in the calculation of payments to suppliers of inventory. The figure so calculated, when added to payments to suppliers for other goods and services excluding GST, will give the correct overall figure. Note that even GST receivables resulting from purchases of property, plant and equipment are included in the calculation of cash payments to suppliers of inventory. The formula for calculation is as follows:

Accrual-basis cost of sales	− Beginning inventory	+ Ending inventory	= Accrual-basis purchases

Accrual-basis purchases	+ Beginning accounts payable − Ending accounts payable	**+ Additions to GST Receivable account in the current period** **+ GST paid to the ATO (if any)**	= Cash paid to suppliers for purchases

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For those who prefer account reconstruction in order to determine cash payments to suppliers, the calculation can be made by adding to the Accounts Payable account the necessary GST receivable information from the account shown as follows using hypothetical figures.

Accounts Payable with GST Receivable

Cash Paid	**738 900**	Beginning Balance (payable)	51 000
Ending Balance (payable)	161 100	Purchases	750 000
		Payment of GST to ATO	15 000
		GST Receivable (from the account)	84 000
	900 000		900 000

The cash payment calculation ($738 900) is then added to payments to employees and for other services to determine cash paid to suppliers and employees. Hence, cash paid to suppliers and employees is shown at a gross amount, as per the requirements of Interpretation 1031.

In reconciling net cash from operating activities to profit, the profit needs to be adjusted for the changes in the GST Receivable (asset) account and the GST Payable (liability) account, based on the same reasons as those discussed in relation to figure 18.11 (p. 771).

Trade accounts receivable

Under the direct approach to determining cash flows from operating activities, the Accounts Receivable account is used in determining cash receipts from customers. Note, however, that only trade receivables should be used for this purpose. Previous discussion indicated that accrual-basis sales reflected in the income statement are converted to cash receipts from customers by adjusting for the change in the balance of receivables over the reporting period. This approach assumes that the only transactions affecting accounts receivable are sales and cash received. However, other items can affect the change in the balance of receivables. These include the allowance for doubtful debts, an actual bad debt written off, and other credit entries such as discount allowed and interest charged on overdue accounts. Note that accrual-basis sales shown on the income statement are normally net sales, i.e. net of returns and allowances. In the conversion process, the net sales figure used includes both cash sales and credit sales. How the existence of an allowance for doubtful debts and bad debts written off is handled in the conversion process is now discussed. Discount allowed is then considered.

The illustration of Coffee House’s statement of cash flows assumed that no bad debts were written off during the reporting period and no allowance for doubtful debts existed. When preparing the statement of cash flows, additional adjustments must be made to account for these items when included in the financial reports. These items must be handled carefully to ensure accurate calculations of cash flows. Two conditions are discussed below:

- where bad debts are written off under the direct write-off approach (no allowance account is raised)
- where an Allowance for Doubtful Debts account is raised and bad debts are written off against the allowance.

Bad debts (direct write-off)

When bad debts are written off under the direct write-off approach, bad debts expense is reported in the income statement and accounts receivable is reduced. This reduction is reflected in the ending balance of accounts receivable. In determining the cash received from customers, an adjustment to the normal conversion approach has to be made, and the process becomes:

Accrual-basis sales	+ Beginning accounts receivable − Ending accounts receivable − **Bad debts written off (excluding GST)**	= Cash receipts from customers

When GST is considered, the bad debts written off against the accrual-basis sales and services revenue is the amount excluding GST, because the adjustments for the GST Payable in the formula on page 775 cater for the GST effect.

The need for the bad debts adjustment can readily be seen by reconstructing the Accounts Receivable account for Coffee House. If it is assumed that $2000 of bad debts have been written off during the period, the other expenses in the income statement in figure 18.6 (p. 760) are increased by the bad debts expense of $2000, and the ending balance of accounts receivable in the statement of financial position in figure 18.6 is $102 000. The reconstructed Accounts Receivable account is therefore:

Accounts Receivable

Beginning Balance	86 000	**Cash Receipts**	**942 000**
Sales	960 000	Bad Debts Written Off	2 000
		Ending Balance	102 000
	1 046 000		1 046 000

Note that cash receipts from customers of $942 000 is calculated only after consideration of the bad debts. The bad debts of $2000 represent non-cash items and their effects must be removed before calculating cash received from customers. In the note reconciling net cash used in operating activities to profit, the bad debts written off is a non-cash expense, but it does ***not*** need to be added back to profit in order to arrive at cash flow from operations. Profit is $76 000 (previously $78 000) after deducting the bad debts written off, and the balance of accounts receivable is now $102 000 (previously $104 000). Consequently, the bad debts adjustment is reflected in the change in balances of accounts receivable ($16 000, previously $18 000). As a general principle, the effect of the bad debts in the reconciliation process is taken into account when the change in accounts receivable balances is added back to the profit.

Allowance for doubtful debts

If an allowance account is used, it is a contra account to accounts receivable in the statement of financial position, and actual bad debts are debited to the allowance account as they are written off. The expense recorded in the income statement therefore represents the end-of-period adjustment upon assessment of the recoverability of the accounts receivable. Again, this situation needs to be carefully handled in calculating cash flows from operating activities and in the reconciliation of cash flows from operating activities to profit.

In determining cash receipts from customers under the direct method, the balance of the Allowance for Doubtful Debts account must ***not*** be netted off against the accounts receivable balance, because both cash received from customers and cash paid for expenses will be misstated. To calculate the cash flow from customers, the actual bad debts written off must be determined (as in the direct write-off approach described above) and the bad debt expense is ignored, since it is a book entry only and cannot be converted to a cash-basis expense. The calculation of bad debts written off by reconstructing the allowance account is shown in the comprehensive example beginning on page 784.

In the note showing reconciliation of net cash from operating activities to profit (the indirect method), both the bad debts write-off and the increase/decrease in allowance for doubtful debts are taken into account automatically by the increase/decrease in the gross accounts receivable balance and the increase/decrease in the allowance for doubtful debts, which can be disclosed separately. (In the reconciliation process, however, it is possible to net the allowance accounts against the Accounts Receivable account and use the increase/decrease in net receivables for reconciliation purposes.) The approach that does not net off the allowance described above is used in the comprehensive example beginning on page 784.

Discount allowed

If discounts have been allowed to customers during the financial year, the discount allowed must also be adjusted in the conversion process. Discount allowed is a non-cash item that, like bad debts written off, appears in the Accounts Receivable account. If both bad debts and discount allowed are recorded in the accounts of an entity, the conversion of accrual-basis sales to cash receipts from customers becomes:

Accrual-basis sales and services revenue	+ Beginning accounts receivable − Ending accounts receivable − Bad debts written off (excluding GST) **− Discount allowed (excluding GST)**	= Cash receipts from customers

Discounts allowed are not considered in the note showing reconciliation of net cash from operating activities to profit because the effect of the discount will be reflected in the adjustment made for changes in balances of current receivables.

Trade accounts payable and discount received

Under the direct method of deriving cash flows from operating activities, the conversion of accrual-basis expenses and services costs using the change in balances of the appropriate payables accounts is usually straightforward, as illustrated to date. In deriving cash paid to suppliers, however, only trade payables should be used, and the starting point of accrual-basis purchases is usually taken as credit purchases (net of returns and allowances) and cash purchases. If discounts received have arisen on payments to accounts payable, this amount, which represents a non-cash entry (debit) to accounts payable, must be adjusted to convert accrual-basis cost of sales to cash payments to suppliers. This process is:

Accrual-basis cost of sales	− Beginning inventory + Ending inventory	= Accrual-basis purchases

Accrual-basis purchases	+ Beginning accounts payable − Ending accounts payable **− Discount received (excluding GST)**	= Cash payments to suppliers

As with discount allowed, the discount received (revenue) account is recorded net of GST and the amount to be deducted from accrual-basis purchases is the net-of-GST figure. The adjustment for the GST Receivable account in the formula on page 775 caters automatically for the GST adjustment on discount received.

In reconciling net cash from operating activities to profit, the profit is not adjusted for discount allowed as the impact of this item is incorporated into the adjustment for the change in balances of accounts payable.

Non-trade receivables and payables

Most discussions on the preparation of a statement of cash flows imply that all receivables and payables are trade receivables and payables and therefore are used in determining cash receipts from customers and cash paid for purchases. In preparing a statement of cash flows, an analysis must also be made for any non-trade receivables and payables that need to be included when determining cash flows. Examples of these include loans to employees, and amounts receivable or payable on the non-current assets sold and purchased. Non-trade receivables and payables may not be included in the calculation of cash flows from operating activities. They are treated as cash flows from investing activities if such items involve investments, or cash flows from financing activities if they are akin to borrowings.

Bills receivable and bills payable

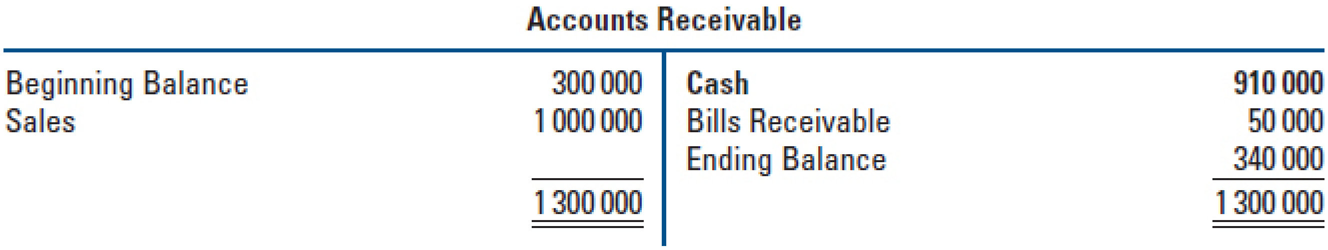
Bills of exchange and promissory notes are classified into trade bills and commercial bills. Trade bills receivable and trade bills payable are essentially another form of accounts receivable or accounts payable respectively, and therefore must enter into the calculation of cash flows from operating activities. To illustrate the impact of trade bills receivable, consider the following simple illustration.

Suppose that comparative statements of financial position contain the following information:

Comparative Statements of Financial Position

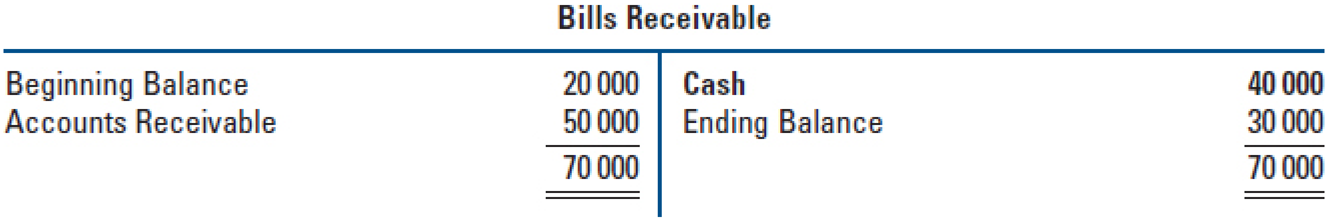
	2018	2017
Current assets		
Accounts receivable	$ 340 000	$ 300 000
Bills receivable	30 000	20 000

Accrual sales for the year were $1 000 000, and trade bills received from trade accounts receivable amounted to $50 000. Assuming no other items (e.g. bad debts, discount allowed, discount on bills) were involved, the Accounts Receivable account and Bills Receivable account appear as under:



Accounts Receivable

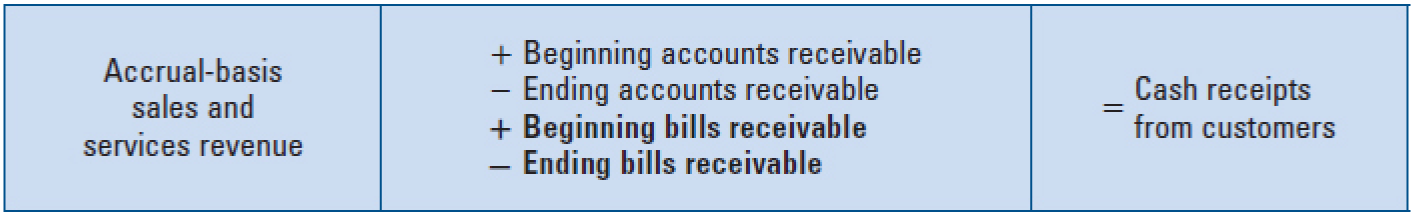
Beginning Balance	300 000	**Cash**	**910 000**
Sales	1 000 000	Bills Receivable	50 000
		Ending Balance	340 000
	1 300 000		1 300 000



Bills Receivable

Beginning Balance	20 000	**Cash**	**40 000**
Accounts Receivable	50 000	Ending Balance	30 000
	70 000		70 000

The cash received from accounts receivable is $910 000 and from bills receivable $40 000, i.e. a total of $950 000. This total amount of cash represents cash received from customers for sales of goods and services. Therefore, when arriving at cash receipts from customers by converting accrual-basis sales to cash receipts from customers, changes in balances of ***both*** accounts receivable and trade bills receivable (gross balance) must be considered. The conversion process is as shown below — other items such as bad debts require further adjustment.



Accrual-basis sales and services revenue	+ Beginning accounts receivable − Ending accounts receivable **+ Beginning bills receivable** **− Ending bills receivable**	= Cash receipts from customers

The calculation for the above example is:

$$\$\,1\,000\,000 + \$300\,000 - \$340\,000 + \$20\,000 - \$30\,000 = \$950\,000$$

The change in the balances of bills receivable also is adjusted when reconciling net cash from operating activities to profit for the period.

Similarly, changes in the balances of trade bills payable are incorporated into the conversion process for arriving at cash payments to suppliers. The change in the balance of trade bills payable also is an item of adjustment in the process of reconciling net cash from operating activities to profit.

Note that, for both bills receivable and payable, these accounts are stated at a gross amount, including unearned interest. Hence, taking the difference in the gross balances causes an amount of interest to be recognised as part of cash received from customers. This interest element may be separated out if considered material and shown as part of interest received and borrowing costs paid. (In this circumstance, the interest is more appropriately classified as an operating cash flow.)

Commercial bills receivable and payable normally are regarded as relating to the investing and financing activities of the entity and as such not used in the process of converting accrual-basis expenses to cash-basis expenses. Hence, any interest received on such bills may appropriately be regarded as an investing activity, but interest paid on such bills is regarded as an operating activity under the standard.

Short-term investments

Short-term investments can appear in the current assets and current liabilities section of a statement of financial position. Some short-term investments could qualify as cash equivalents, and others generally are classified as an investing activity of an entity. Therefore, these short-term investments are not included in the process of converting accrual-basis expenses to cash-basis expenses to arrive at cash flows from operating activities. In addition, changes in the balances of short-term investment accounts are not included in the process of reconciling net cash from operating activities to profit.

Dividends

Companies commonly pay cash dividends. Several steps and accounts can be involved in the process. For example, a company may pay an interim dividend during the reporting period, declare a final dividend at the end of the reporting period, and pay such dividend declared in the following reporting period. For the purpose of a statement of cash flows, only cash payments for dividends are considered — dividends declared are not considered. The cash payment in the current financial year usually consists of the interim dividends paid during the year plus the final dividends declared in the immediately preceding financial year and paid in the current year. The payment of cash dividends is usually reported in the statement of cash flows as a financing activity but may be shown as an operating activity.

To illustrate the handling of cash dividends, the following information is extracted from the records of Costco Ltd.

Comparative Statements of Financial Position

	30 June 2018	**30 June 2017**
Final dividend payable	$ 120 000	$ 100 000
Retained earnings	110 000	140 000

The statement of changes in equity shows that an interim dividend of $50 000 was paid in cash for the year ended 30 June 2018. The dividend payable at the end of June 2017 was paid in cash on 30 October 2017. The relevant accounts in ascertaining cash dividends for the reporting period are shown below.

Retained Earnings

31/1/18	**Interim Dividend Paid**	**50 000**	1/7/17	Beginning Balance	140 000
30/6/18	Final Dividend Declared	120 000	30/6/18	Profit	160 000
30/6/18	Transfer to Reserve	20 000			
30/6/18	Ending Balance	110 000			
		300 000			300 000

Final Dividend Payable

30/10/18	**Cash**	**100 000**	1/7/17	Beginning Balance	100 000
			30/6/18	Retained Earnings	120 000

The cash paid for dividends during 2017–18 is $150 000 ($50 000 interim dividend for the current year and $100 000 final dividend declared at 30 June 2017).

A dividend paid other than in cash, for example a share dividend, does not appear as part of the statement of cash flows but needs to be shown in the note to the statement that covers non-cash activities.

Income tax

Companies are regarded as separate legal entities and are therefore required to pay income tax. For the purposes of preparing the statement of cash flows, it is only the income tax ***paid*** in cash that is reported normally as a cash outflow from operating activities. Income tax is reported in the financial statements by showing income tax expense in the income statement/statement of profit or loss and other comprehensive income, and recording the liability for tax as a current tax liability in the statement of financial position.

BUSINESS KNOWLEDGE

PayPal unveils 'do nothing' payment

One week after launching new iPhone and Android apps that allow consumers to order and pay for purchases before they set foot in stores, PayPal has taken the idea of the digital wallet a step further with PayPal Beacon. 'We challenged ourselves to find a better experience than swiping a credit card,' said PayPal president David Marcus. 'We figured the only better way to pay would be to do nothing.'

With Beacon, consumers who have downloaded the PayPal app need only walk into a store and when they're ready to make a transaction the funds are then transferred securely to the merchant. Using Bluetooth Low Energy, rather than Wi-Fi or GPS, the merchant's Beacon hardware detects when a customer with the PayPal app walks within 10 metres of the store. At this point, the merchant can attempt to engage the consumer with special offers, discounts or details of new products to steer them into their stores. When customers take the bait, their photo will appear on the merchant's compatible point-of-sale system.Customers only need to give verbal confirmation of the transaction for the payment to go through. Customers are then sent a paperless receipt via email and text to confirm the purchase.

The Beacon technology is PayPal's latest attempt to replicate its large share of the online payments market in bricks and mortar stores. By offering consumers faster and more secure ways to pay and enabling retailers to communicate directly with consumers via their smart phones, Paypal hopes to challenge the dominance of credit card companies such as Mastercard and Visa. The mobile payments market is estimated to reach $US90 billion ($97 billion) in 2017, compared to $US12.8 billion last year, according to Forrester Research.

'We don't expect cash or credit cards to go away,' PayPal Australia managing director Jeff Clementz told ***The Australian Financial Review***.

Source: Excerpt from Mitchell, S 2013, 'PayPal unveils "do nothing" payment', ***The Australian Financial Review***, 11 September, p. 19.

Introduction to the tax payment system

The current system for paying company income tax was introduced by the Australian Government on 1 July 2000 as part of the legislation introducing the GST. The effect of this system for many companies is that income tax is paid, under the PAYG (pay-as-you-go) system, in quarterly instalments, thus smoothing out the cash flow requirements for tax payments throughout the year. Under the PAYG system, a company may pay income tax either in quarterly instalments or in one annual payment. An annual payment system is available only for companies that satisfy certain conditions. For companies permitted to pay only one annual instalment, the amount is due for payment on 21 October.

If a company is required to pay quarterly instalments of tax, it will do so at the amount specified on its quarterly business activity statement (BAS). A company with an annual reporting period ending on 30 June 2017 is required to make quarterly cash payments as follows:

Quarter ended	Due date of instalment
30 September 2016	28 October 2016
31 December 2016	28 February 2017
31 March 2017	28 April 2017
30 June 2017	28 July 2017

A company required to submit a BAS monthly for GST purposes, e.g. a company with an annual turnover of $20 million or more, still pays income tax by PAYG instalments on a quarterly basis. Note, however, that the PAYG instalments for companies that pay GST monthly are due on 21 October, 21 January, 21 April and 21 July.

Most companies that are PAYG instalment payers use the following formula to determine their quarterly income tax payments:

Instalment income × Instalment rate

Instalment income is determined each quarter and represents the total actual ordinary assessable income as determined in accordance with income tax law for the period for which the instalment is being paid. For example, instalment income for the September quarter is the assessable income for that period, which is the basis of the tax payment made on 28 October. The instalment income is then multiplied by the instalment rate to determine the income tax payment. The instalment rate is a percentage figure worked out by the ATO based on the ATO's most recent assessment for the most recent income year. It is calculated by dividing the company's 'notional tax' by its 'base assessment instalment income' and multiplying by 100:

Instalment rate = (Notional tax/Base assessment instalment income) × 100

'Notional tax' represents the equivalent tax that would have been payable on business and investment income, excluding capital gains, for the most recent income year for which an assessment has been made. 'Base assessment instalment income' represents that portion of the company's latest tax assessment that the ATO deems to be the company's instalment income.

To illustrate, assume that in the 2016–17 tax return, Costco Ltd had assessable income of $750 000. This is adopted by the ATO as the base assessment instalment income. Assume as well that, after allowing for deductions and expected changes in tax rates, the notional tax is determined by the ATO as $157 500. The initial instalment rate is determined by the ATO as follows:

Instalment rate = ($157 500/$750 000) × 100 = 21%

Assuming that the instalment income for Costco Ltd for the September 2017 quarter is $204 000, the first tax payment due on 28 October 2017 is determined by multiplying the instalment income by the instalment rate:

September quarter tax payment = $204 000 × 21% = $42 840

This amount of $42 840 is then listed on the company's BAS and paid on or before 28 October, along with other taxes as listed on the BAS, including the GST, PAYG withholdings from employees' wages, and fringe benefits tax.

A company is able to vary the instalment rate determined by the ATO in any quarter if it believes that the total instalments determined by the ATO's rate are likely to result in total tax payments being higher than the company's total expected current tax liability for the year. However, there are penalties (in the form of additional interest payments) if the company's varied instalment rate is less than 85% of the instalment rate that would have covered the actual current tax liability for the year. For example, Costco Ltd may lower its instalment rate for the second instalment from 21% to 15% if it believes that it has suffered a downturn in its market for goods sold resulting in lower assessable income. This may result in Costco Ltd's BAS for that quarter showing either a smaller tax payment or even a tax credit.

Assuming that a company's end of reporting period is 30 June, the end-of-period adjustment entry for income tax is based on the expected current tax payable as a percentage of the company's taxable income for the full year. This taxable income is likely to be different from the estimates made for the calculation of quarterly tax instalments. Furthermore, the company's calculation on 30 June for current income tax and the amount of tax paid to the ATO may differ depending on the outcome of any audit procedures carried out by the ATO.

As a result of these differences, the company will be left with either an overprovision or underprovision for tax when the current tax liability is fully paid. This overprovision or underprovision for tax normally is recognised as an item of income or expense of the company in the current period.

Example of tax payments by four instalments

Assume that BlueRay Ltd, for the year ended 30 June 2017, pays quarterly PAYG income tax instalments as follows:

$ 16 000 on 28 July 2017
$ 8 000 on 28 October 2017
$ 22 000 on 28 February 2018
$ 24 000 on 28 April 2018

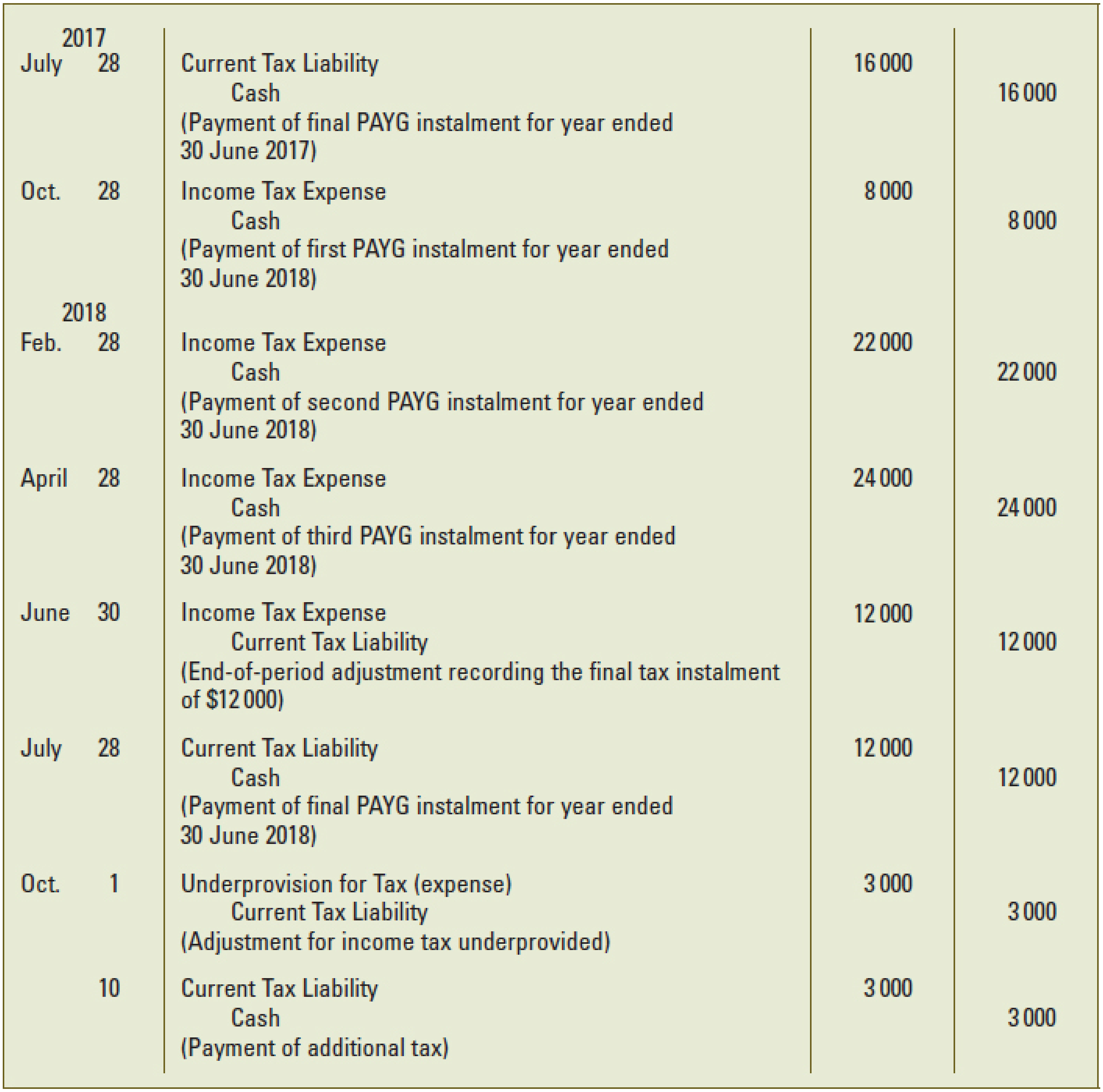
On 30 June 2018, BlueRay Ltd determines its total current tax liability for the year to be $66 000 on an estimated taxable income of $220 000 (tax rate is 30%). As a result, the company pays a final tax payment for the year on 28 July 2018 as follows:

Final tax instalment = $66 000 − $8000 − $22 000 − $24 000 − $12 000

As a result of an audit by the ATO, the ATO notified BlueRay Ltd on 1 October 2018 that its taxable income for the year ended 30 June 2018 was assessed as $230 000, requiring a total tax payment for that year of $69 000. In other words, there is an underprovision for income tax of $3000 (i.e. $69 000 − $66 000), which is recognised as an expense in the year ended 30 June 2019.

BlueRay Ltd paid the additional tax on 10 October 2018. Journal entries to record all payments of tax and the adjustment from the underprovision for tax in BlueRay Ltd's records are shown in figure 18.14.

Figure 18.14 Journal entries for income tax payments



2017 July 28	Current Tax Liability Cash (Payment of final PAYG instalment for year ended 30 June 2017)	16 000	16 000
Oct. 28	Income Tax Expense Cash (Payment of first PAYG instalment for year ended 30 June 2018)	8 000	8 000
2018 Feb. 28	Income Tax Expense Cash (Payment of second PAYG instalment for year ended 30 June 2018)	22 000	22 000
April 28	Income Tax Expense Cash (Payment of third PAYG instalment for year ended 30 June 2018)	24 000	24 000
June 30	Income Tax Expense Current Tax Liability (End-of-period adjustment recording the final tax instalment of $12 000)	12 000	12 000
July 28	Current Tax Liability Cash (Payment of final PAYG instalment for year ended 30 June 2018)	12 000	12 000
Oct. 1	Underprovision for Tax (expense) Current Tax Liability (Adjustment for income tax underprovided)	3 000	3 000
10	Current Tax Liability Cash (Payment of additional tax)	3 000	3 000

Thus, for the purpose of preparing a statement of cash flows, the cash paid for income tax for BlueRay Ltd in the year ended 30 June 2018 equals:

Final instalment for year ended 30 June 2017	$ 16 000
Any underprovision/overprovision for tax paid in the year	—
First instalment for year ended 30 June 2018	8 000
Second instalment for year ended 30 June 2018	22 000
Third instalment for year ended 30 June 2018	24 000
	$ 70 000

Alternatively, a simple way of calculating the cash flow by analysis of financial statements is to reconstruct the current tax liability as follows:

Current Tax Liability

30/6/18	Overprovision (if any)	—	30/6/17	Beginning Balance	16 000
	Cash	**70 000**	30/6/18	Income Tax Expense	66 000
30/6/18	Ending Balance	12 000	30/6/18	Underprovision (if any)	—
		82 000			82 000

As a further alternative, the following formula can be used:

Accrual-basis tax expense (including over/underprovision)	− Increase in current tax liability *or* + Decrease in current tax liability	= Cash paid for income tax

The cash paid for income tax can be calculated in these two ways ***irrespective of whether the tax is paid in one instalment or four instalments***.

For the purpose of preparing the note reconciling cash flow from operating activities to profit, the profit needs to be adjusted for the change in the current tax liability as reported in the comparative statements of financial position.

LEARNING CHECK

☐ Cash receipts from customers include trade accounts and bills receivable as well as adjustments for bad debts written off and discounts allowed; cash paid to suppliers for inventory considers trade accounts and bills payable and any discounts received.

☐ Cash outlays and receipts for GST are not disclosed separately in a statement of cash flows, but are included in cash flow from operating activities.

☐ Cash paid for dividends in the current financial year is determined as the sum of any interim dividend paid during the year plus the final dividend declared in the preceding financial year and paid in the current year.

☐ Cash paid for income tax during the period can be calculated by reconstructing the Current Tax Liability account, irrespective of whether tax is paid in one or more instalments.

18.8 Comprehensive example

LO 8 **Prepare and analyse the statement of cash flows for a company after consideration of the more advanced issues.**

The example below shows a more complex statement of cash flows prepared from a company's financial reports, and follows the same step-by-step process outlined previously. The example introduces some of the more advanced aspects of the preparation of the statement. Both the direct method and indirect method are illustrated.

The comparative statements of financial position of Carrington Ltd as at 30 June 2017 and 2018 and the statement of profit or loss and other comprehensive income and statement of changes in equity for the year ended 30 June 2018, presented in figures 18.15(a), (b) and (c) (pp. 785–6), are used in this illustration.

Additional information

During the year, Carrington Ltd entered into the following transactions relevant to the preparation of the statement of cash flows:

(a) Building additions were completed at a cost of $300 000 cash.

(b) New equipment was purchased at a cost of $168 500; $43 500 was paid in cash and the balance was covered by arranging a long-term mortgage loan with Global Finance Ltd.

(c) Equipment with a cost of $105 500 and a carrying amount of $50 000 was sold for $46 000 cash.

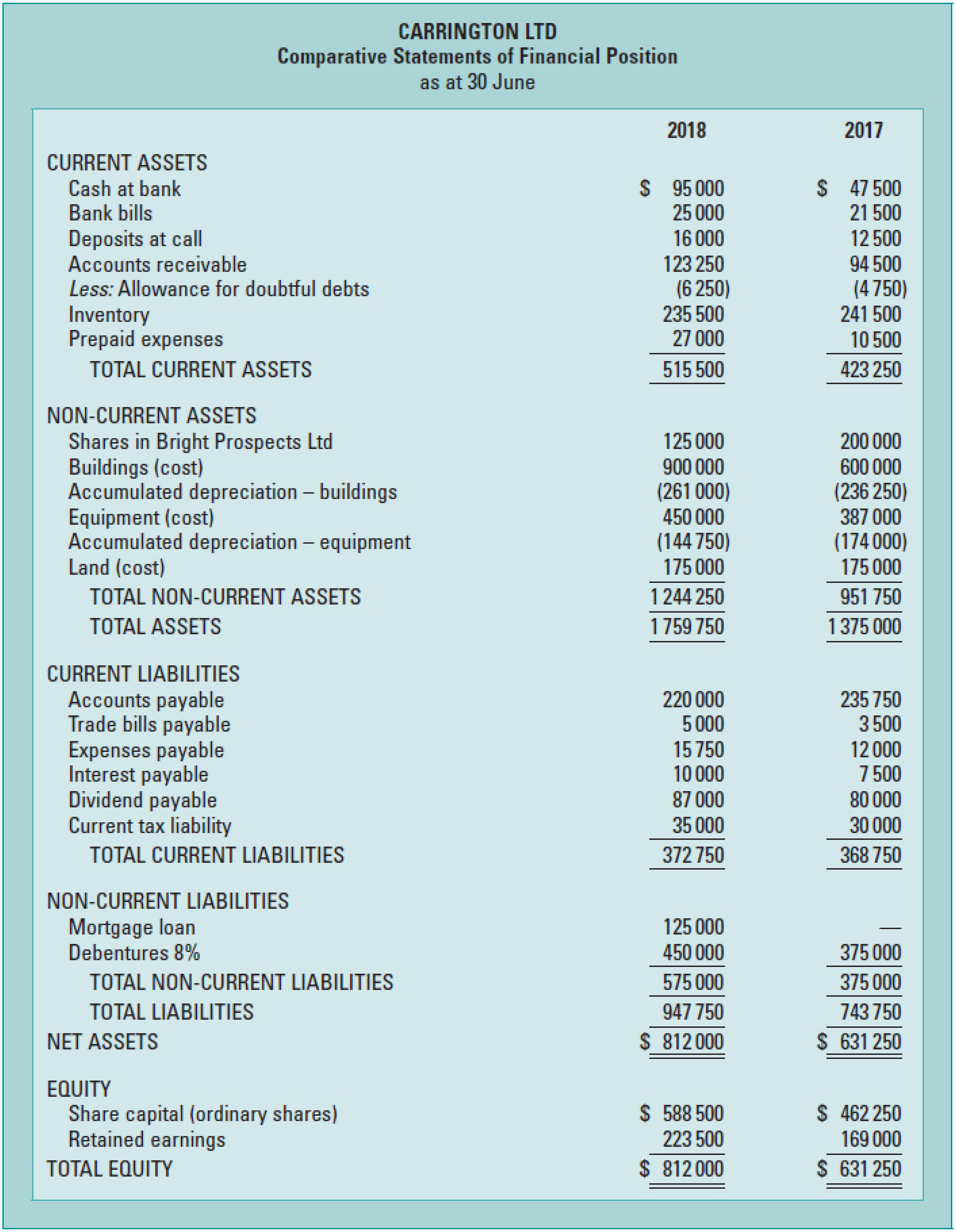
(d) Shares in Prospects Ltd were sold for $137 000 cash.

(e) Debentures (8%) were issued at nominal value for cash.

(f) The company pays tax in four quarterly instalments, the balance in the Current Tax Payable account representing the final instalment payable for the year. For the year ended 30 June 2017, income tax was assessed by the Tax Office to be $125 000. This has caused tax expense of $150 000 in the current year to include a $10 000 underprovision for tax.

Calculations for each of the steps required are presented on pages 786–90 for the direct method.

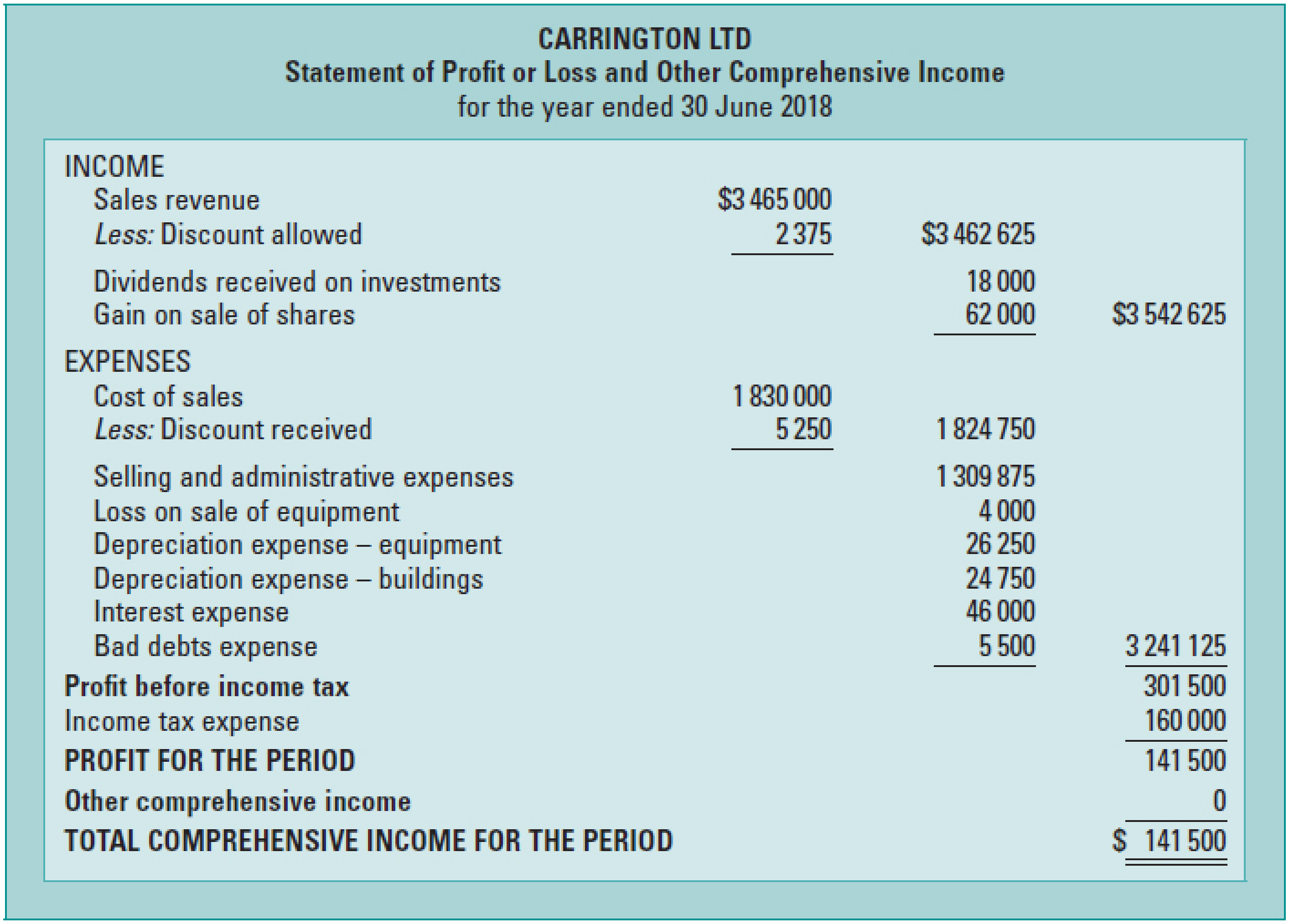
Figure 18.15(a) Carrington Ltd — comparative statements of financial position



CARRINGTON LTD
Comparative Statements of Financial Position
as at 30 June

	2018	2017
CURRENT ASSETS		
Cash at bank	$ 95 000	$ 47 500
Bank bills	25 000	21 500
Deposits at call	16 000	12 500
Accounts receivable	123 250	94 500
Less: Allowance for doubtful debts	(6 250)	(4 750)
Inventory	235 500	241 500
Prepaid expenses	27 000	10 500
TOTAL CURRENT ASSETS	515 500	423 250
NON-CURRENT ASSETS		
Shares in Bright Prospects Ltd	125 000	200 000
Buildings (cost)	900 000	600 000
Accumulated depreciation – buildings	(261 000)	(236 250)
Equipment (cost)	450 000	387 000
Accumulated depreciation – equipment	(144 750)	(174 000)
Land (cost)	175 000	175 000
TOTAL NON-CURRENT ASSETS	1 244 250	951 750
TOTAL ASSETS	1 759 750	1 375 000
CURRENT LIABILITIES		
Accounts payable	220 000	235 750
Trade bills payable	5 000	3 500
Expenses payable	15 750	12 000
Interest payable	10 000	7 500
Dividend payable	87 000	80 000
Current tax liability	35 000	30 000
TOTAL CURRENT LIABILITIES	372 750	368 750
NON-CURRENT LIABILITIES		
Mortgage loan	125 000	—
Debentures 8%	450 000	375 000
TOTAL NON-CURRENT LIABILITIES	575 000	375 000
TOTAL LIABILITIES	947 750	743 750
NET ASSETS	$ 812 000	$ 631 250
EQUITY		
Share capital (ordinary shares)	$ 588 500	$ 462 250
Retained earnings	223 500	169 000
TOTAL EQUITY	$ 812 000	$ 631 250

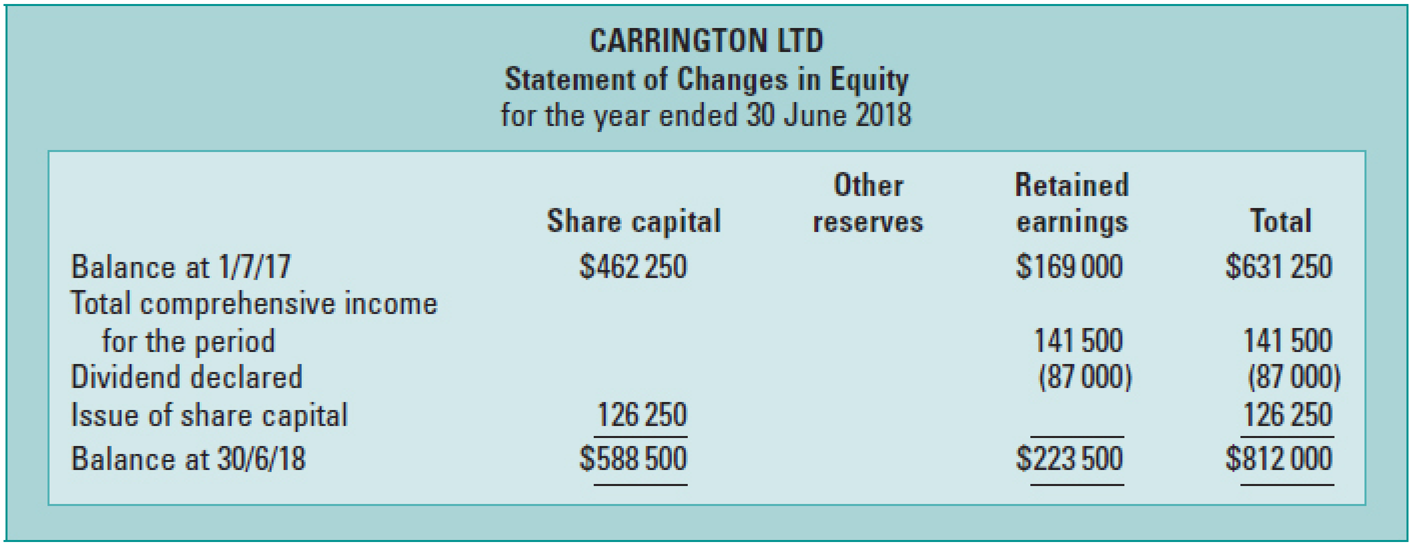
Figure 18.15(b) Carrington Ltd — statement of profit or loss and other comprehensive income



CARRINGTON LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2018

INCOME			
Sales revenue	$3 465 000		
Less: Discount allowed	2 375	$3 462 625	
Dividends received on investments		18 000	
Gain on sale of shares		62 000	$3 542 625
EXPENSES			
Cost of sales	1 830 000		
Less: Discount received	5 250	1 824 750	
Selling and administrative expenses		1 309 875	
Loss on sale of equipment		4 000	
Depreciation expense – equipment		26 250	
Depreciation expense – buildings		24 750	
Interest expense		46 000	
Bad debts expense		5 500	3 241 125
Profit before income tax			301 500
Income tax expense			160 000
PROFIT FOR THE PERIOD			141 500
Other comprehensive income			0
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD			$ 141 500

Figure 18.15(c) Carrington Ltd — statement of changes in equity



CARRINGTON LTD
Statement of Changes in Equity
for the year ended 30 June 2018

	Share capital	Other reserves	Retained earnings	Total
Balance at 1/7/17	$462 250		$169 000	$631 250
Total comprehensive income for the period			141 500	141 500
Dividend declared			(87 000)	(87 000)
Issue of share capital	126 250			126 250
Balance at 30/6/18	$588 500		$223 500	$812 000

Step 1: Cash from operating activities — direct method

Cash receipts from customers

Receipts from customers = Sales + beginning accounts receivable
− ending accounts receivable − bad debts written off
− discount allowed − sales returns and allowances
= \$3 465 000 + \$94 500 − \$123 250 − \$4000 − \$2375 − 0
= \$3 429 875

To determine bad debts written off, the Allowance for Doubtful Debts account could be reconstructed as follows:

Allowance for Doubtful Debts

	Bad Debts Written Off	**4 000**	30/6/17	Beginning Balance	4 750
30/6/18	Ending Balance	6 250	30/6/18	Bad Debt Expense	5 500
		10 250			10 250

Note that, in calculating the cash flow, the allowance for doubtful debts balances are not netted against accounts receivable balances, i.e. the gross balances of receivables are used in determining receipts from customers.

Cash paid to suppliers for purchases

Cash payments to suppliers is determined by adjusting accrual-basis cost of sales for changes in inventory and accounts payable balances together with any other adjustments that may have affected the changes in balance. Here, trade bills payable (from the statements of financial position) and discounts received (from the statement of profit or loss and other comprehensive income) must be considered. Therefore:

Cash payments for purchases = Cost of sales − beginning inventory + ending inventory +
beginning accounts payable − ending accounts payable +
beginning bills payable − ending bills payable −
discount received
= \$1 830 000 − \$241 500 + \$235 500 + \$235 750 − \$220 000 +
\$3500 − \$5000 − \$5250
= \$1 833 000

Cash paid to suppliers for services

Payments for services include items disclosed in the statement of profit or loss and other comprehensive income as selling and administrative expenses, together with other items that relate to expenses involved in acquiring services. The expenses of \$1 309 875 must be adjusted for prepaid expenses and accrued expenses (expenses payable). Therefore:

Cash paid to suppliers for services = Selling and administrative expenses − beginning
prepaid expenses + ending prepaid expenses +
beginning expenses payable − ending expenses
payable
= \$1 309 875 − \$10 500 + \$27 000 + \$12 000 − \$15 750
= \$1 322 625

Hence, total payments to suppliers and employees = \$1 833 000 + \$1 322 625 = \$3 155 625.

Interest paid

Another item in the statement of profit or loss and other comprehensive income that relates to cash payments for services is the interest expense of \$46 000. Even though this interest relates mainly to the mortgage loan, a financing activity, it is a common practice to classify the interest paid as an operating cash flow (see IAS 7/AASB 107 for further discussion). Interest paid must be determined and disclosed irrespective of whether the direct method or the indirect method is used to calculate the cash from operating activities.

To determine the cash paid for borrowing costs during the period, interest expense is adjusted for changes in the balance of the Interest Payable account. Therefore, cash paid for borrowing costs is calculated as:

$$\begin{aligned}\text{Cash paid for borrowing costs} &= \text{Interest expense} + \text{beginning interest payable} - \\ &\quad\ \text{ending interest payable} \\ &= \$46\,000 + \$7500 - \$10\,000 \\ &= \$43\,500\end{aligned}$$

Cash paid for income tax

The only other item from the statement of profit or loss and other comprehensive income that results in a cash flow is income tax, and it is necessary to determine the cash paid for tax during the last financial year. For the statement of cash flows, the income tax payment for this company for the year ended 30 June 2018 is found by subtracting the final tax payable ($35 000) from the income tax expense including the underprovision ($160 000), and adding the final tax instalment payable at the end of the previous year ($120 000) and paid in the current year. This gives an amount of cash paid in the current year of $155 000. Alternatively, the cash paid can be found by preparing the Current Tax Liability account on the assumption that all tax instalments and tax expense are passed through the liability account, as shown below.

Current Tax Liability

	Total Cash Payment	**155 000**	1/7/17	Beginning Balance	30 000
30/6/18	Ending Balance	35 000	30/6/18	Income Tax Expense	150 000
				Underprovision for Tax	10 000
		190 000			190 000

Alternatively, cash paid for income tax can be determined by the formula shown on page 784, which adjusts accrual-based tax expense (including the underprovision) for changes in the balances of the current tax liability as follows:

$$\text{Cash paid} = \$160\,000 - (\$35\,000 - \$30\,000) = \$155\,000$$

All elements of cash flows from operating activities have now been considered and therefore step 1 is complete. Net cash from operating activities equals $75 750 and details are presented in the statement of cash flows in figure 18.17 (p. 791).

Step 2: Cash from investing activities

Investing activities for Carrington Ltd are determined by examining the comparative statements of financial position and analysing changes in the light of the additional information available as presented on page 784. Note that the analysis is concerned only with ascertaining cash inflows and cash outflows. Gains and losses on the sale of non-current assets are ignored.

The balance of the ***long-term investment***, Shares in Bright Prospects Ltd, has decreased by $75 000. Additional information provided indicates that $137 000 cash was received for these shares. These proceeds may also be disclosed separately in the statement of profit or loss and other comprehensive income. The relevant cash flow is the cash inflow of $137 000 that resulted from the sale, and this appears in the statement of cash flows shown in figure 18.17.

Buildings in the statements of financial position shows an increase of $300 000 over the financial year. From the additional information, it is known that cash outflows of $300 000 occurred to pay for the building additions.

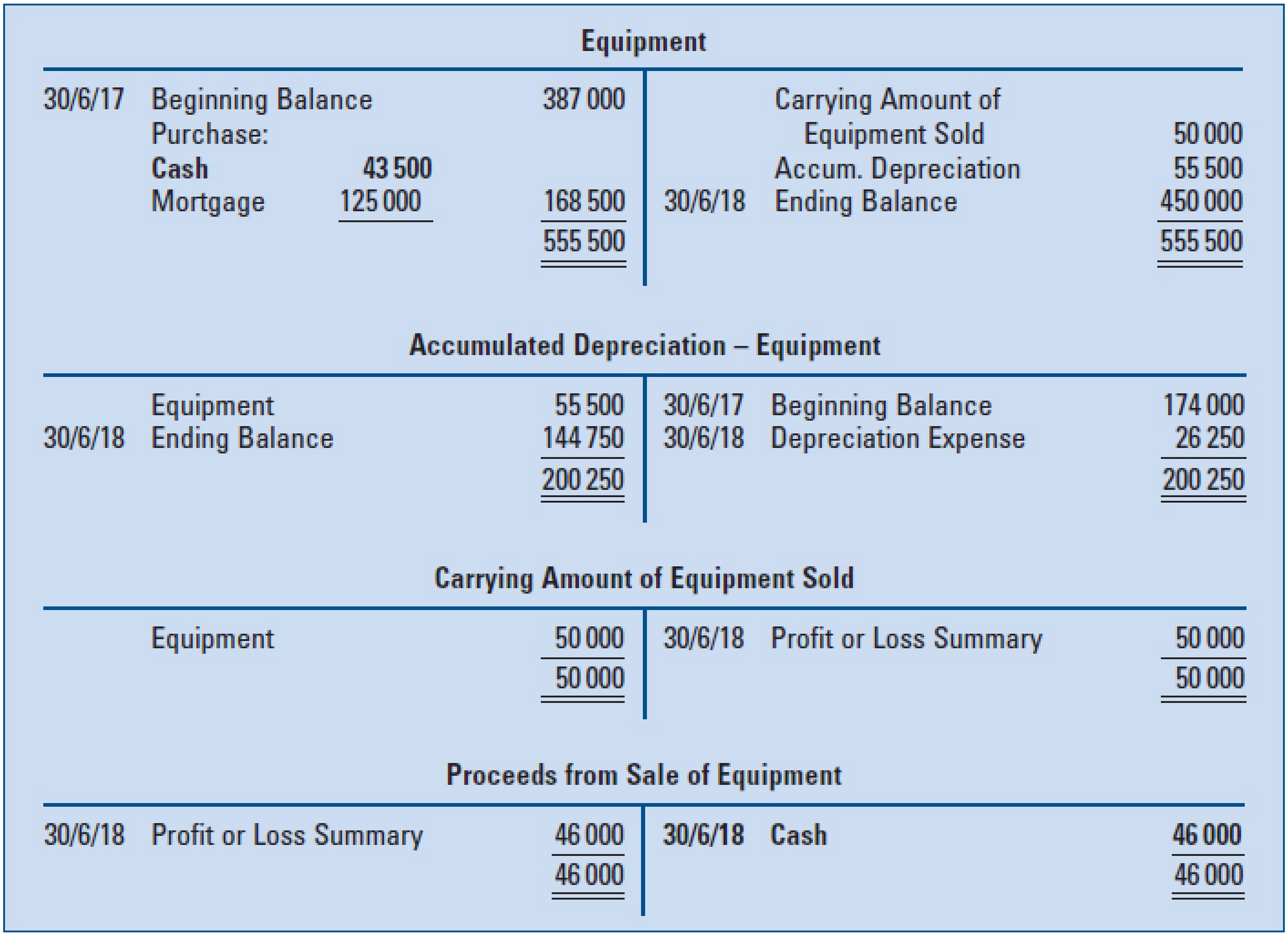
The ***equipment*** balances over the period show an increase of $63 000. This again needs to be analysed to determine the cash flows, if any, which are associated with this increase. The statement of profit or loss and other comprehensive income and additional information provided indicate that new equipment was purchased and old equipment disposed of during the year. Although the relevant cash flows can be determined easily from this information, it may be useful to reconstruct the Equipment account and other accounts affected by the changes. The accounts, when reconstructed, appear as shown in figure 18.16.

The items shown in bold type in figure 18.16 appear in the body of the statement of cash flows. The new equipment purchased of $168 500 results in a cash outflow of $43 500, and this appears in the statement, whereas the remainder, $125 000 (covered by the mortgage loan), needs to be disclosed in notes attached to the statement, because this represents a non-cash transaction (see note 3 in figure 18.17). The proceeds from the sale of the old equipment were received in cash and this cash inflow of $46 000 appears in the statement of cash flows. All other entries in relation to the equipment are internal ‘book’ entries and do not result in cash flows.

As part of the calculation of cash flows from investing activities, one other item in the statement of profit or loss and other comprehensive income needs to be examined — dividends revenue of $18 000. Since no receivable account exists in the statement of financial position for dividends to be received, it can be concluded that all of the $18 000 was received in cash.

The task of determining the cash inflows and cash outflows from investing activities has now been completed. These are summarised and the net cash used in investing activities of $142 500 is shown in the statement of cash flows in figure 18.17.

Figure 18.16 Equipment account and other selected accounts



Equipment

30/6/17	Beginning Balance		387 000			
	Purchase:				Carrying Amount of Equipment Sold	50 000
	Cash	**43 500**			Accum. Depreciation	55 500
	Mortgage	125 000	168 500	30/6/18	Ending Balance	450 000
			555 500			555 500

Accumulated Depreciation – Equipment

	Equipment	55 500	30/6/17	Beginning Balance	174 000
30/6/18	Ending Balance	144 750	30/6/18	Depreciation Expense	26 250
		200 250			200 250

Carrying Amount of Equipment Sold

	Equipment	50 000	30/6/18	Profit or Loss Summary	50 000
		50 000			50 000

Proceeds from Sale of Equipment

30/6/18	Profit or Loss Summary	46 000	**30/6/18**	**Cash**	**46 000**
		46 000			46 000

Step 3: Cash from financing activities

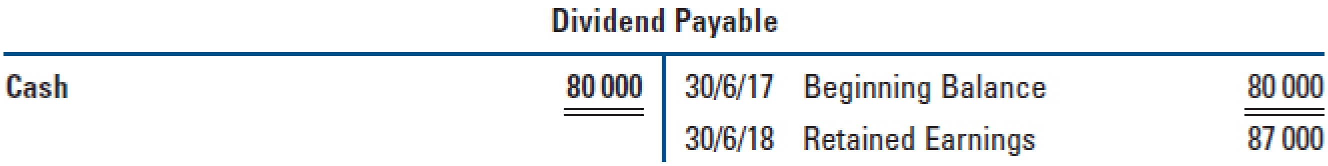
To determine cash flows from financing activities, reference is made to the financial statements and other relevant information available. From this information, it is possible to determine the following items as financing activities:

- share capital increased by $126 250 (statement of changes in equity and statements of financial position)
- debenture debt increased by $75 000 (statements of financial position)
- dividend declared at end of period was $87 000 (statement of changes in equity)
- cash dividend paid was $80 000 (statement of financial position of previous period).

The first item indicates that the 30 000 ***shares issued*** raised $126 250 in cash. This cash inflow must be recorded in the statement of cash flows.

Since the ***debentures*** were issued for cash, the cash inflow resulting must have been $75 000.

Cash paid out for ***dividends*** of $80 000 could be ascertained by reconstructing the Dividend Payable account if the cash amount had not been given. The account appears as follows:



Dividend Payable

Cash	80 000	30/6/17	Beginning Balance	80 000
		30/6/18	Retained Earnings	87 000

As can be seen from the account, the dividends paid during the year ended 30 June 2018 represent the amount declared and appearing as a liability in the statement of financial position as at 30 June 2017. Note that, although not relevant in this illustrative example, any interim dividend paid in cash during the year is taken into account as well.

Step 3 is now complete and the detailed cash inflows and outflows resulting from financing activities have been determined. Details of these and the resulting net cash used in financing activities of $121 250 appear as shown in the statement of cash flows in figure 18.17 (p. 791).

Step 4: Net cash increase / decrease

After completion of steps 1 to 3, the net cash flow for the financial year can be determined by summing the net cash from operating activities, net cash used in investing activities, and net cash used in financing activities. Reference to figure 18.17 reveals a net increase in cash held of $54 500.

Step 5: Cash and cash equivalents at beginning and end

Cash and cash equivalents at the end of the period of $136 000 is reconciled to the amount of $81 500 at the beginning as below:

Net increase in cash and cash equivalents	$ 54 500
Cash and cash equivalents at beginning of period	81 500
Cash and cash equivalents at end of period	$ 136 000

This reconciliation is shown on the statement of cash flows in figure 18.17.

Notes to the statement

Step A: Note to reconcile cash balance

The reconciliation of the cash at end of year in the statement of financial position to the items defined as cash is shown in note form to the statement of cash flows (see Note 1 in figure 18.17).

Step B: Note reconciling profit and operating cash flow

The reconciliation of net cash from operating activities to profit is shown in note 2 to the statement of cash flows in figure 18.17. This process consists of adjusting the profit by removing the effects of depreciation of non-current assets, other items affecting non-current assets and income from investments, and adjusting for changes in the balances of current assets and current liabilities. Note that changes in balances of both receivables and the allowance for doubtful debts are shown. Note also that the increase in the balances of trade bills payable must be included as these have an impact on operating activities.

Step C: Non-cash financing and investing

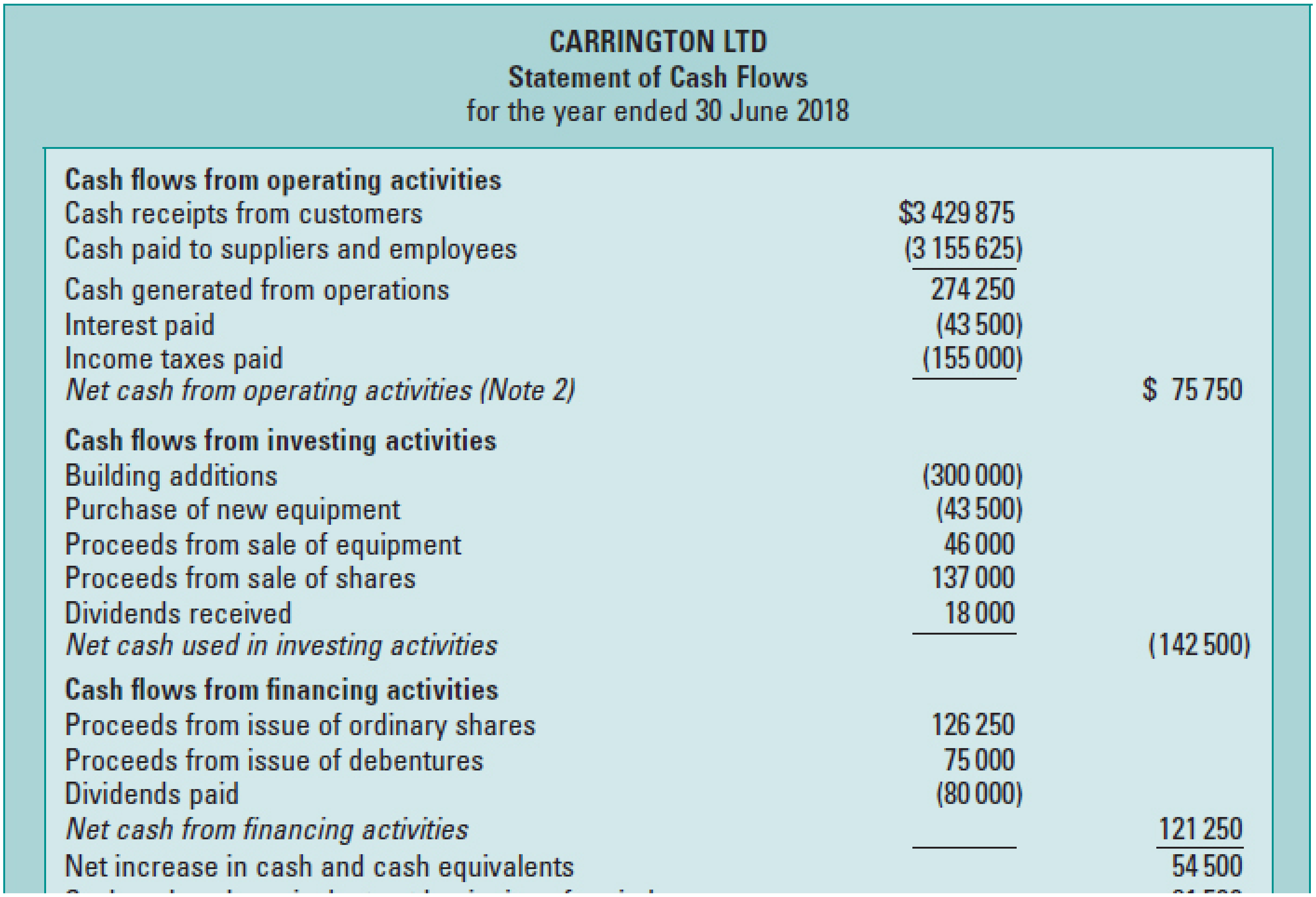
An analysis of information provided and the workings above indicate that there was one transaction affecting assets that did not result in a cash flow. This was the part payment by way of a mortgage loan of $125 000 for the new equipment purchased. This non-cash transaction for Carrington Ltd is shown in note 3 in figure 18.17.

Steps 1 to 5 and A to C performed above will enable the preparation of the complete statement of cash flows together with the required notes thereto. The statement of cash flows for Carrington Ltd is as shown in figure 18.17 (p. 791).

The indirect method of determining net cash from operating activities

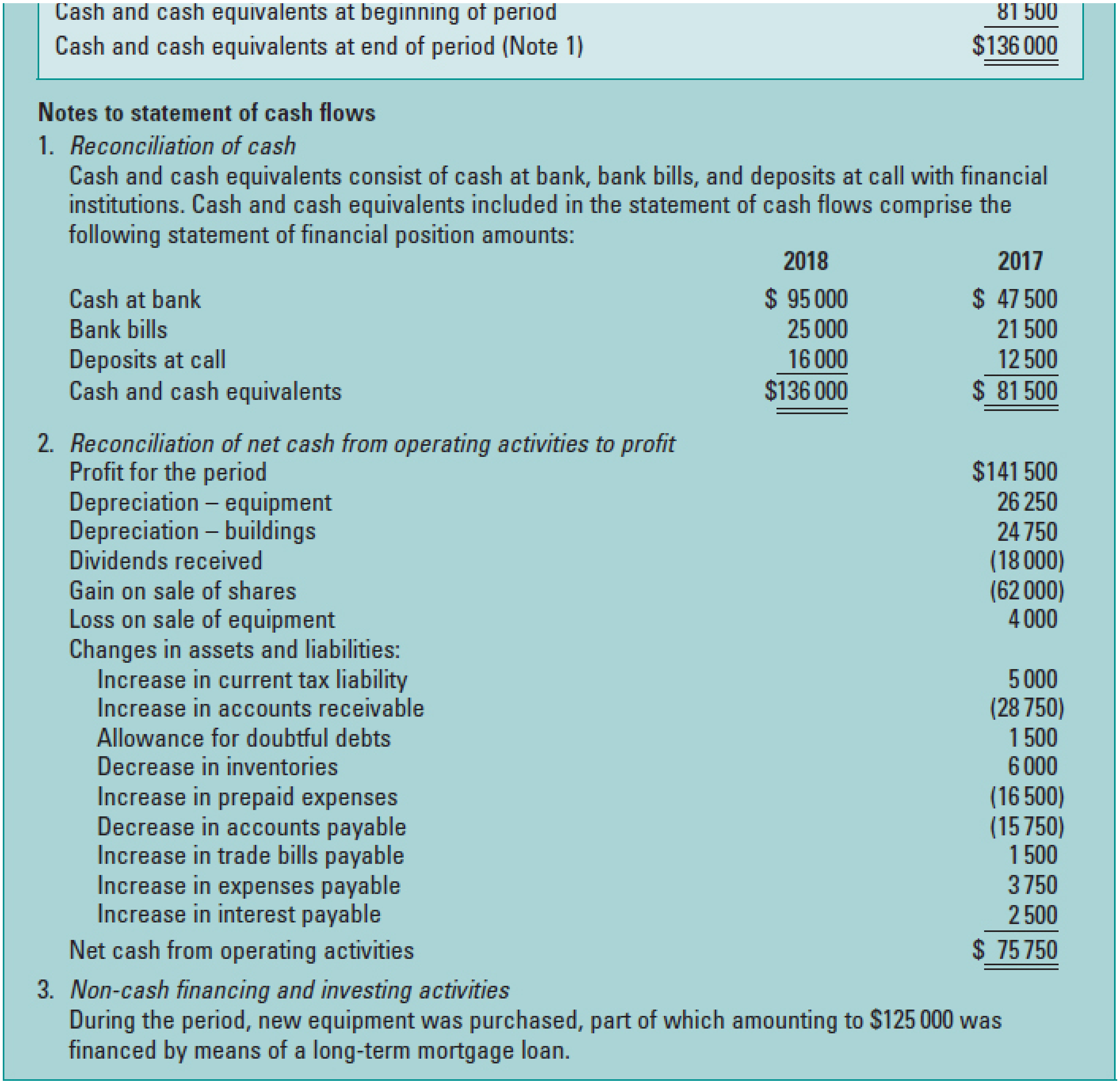
Figure 18.17 illustrates the statement of cash flows for Carrington Ltd using the direct method for calculating net cash from operating activities. As discussed previously, the accounting standard permits an entity to use the indirect method as an alternative, even though the direct method is preferred by standard setters. The authors of this book also prefer the direct method as the one that provides better information for users of general purpose financial reports. Nevertheless, the indirect method of calculating net cash from operating activities is presented in figure 18.18 (p. 792). The similarities between the indirect method in figure 18.18 and the reconciliation note 2 in figure 18.17 are immediately obvious.

Figure 18.17 Statement of cash flows — Carrington Ltd



CARRINGTON LTD
Statement of Cash Flows
for the year ended 30 June 2018

Cash flows from operating activities		
Cash receipts from customers	$3 429 875	
Cash paid to suppliers and employees	(3 155 625)	
Cash generated from operations	274 250	
Interest paid	(43 500)	
Income taxes paid	(155 000)	
Net cash from operating activities (Note 2)		$ 75 750
Cash flows from investing activities		
Building additions	(300 000)	
Purchase of new equipment	(43 500)	
Proceeds from sale of equipment	46 000	
Proceeds from sale of shares	137 000	
Dividends received	18 000	
Net cash used in investing activities		(142 500)
Cash flows from financing activities		
Proceeds from issue of ordinary shares	126 250	
Proceeds from issue of debentures	75 000	
Dividends paid	(80 000)	
Net cash from financing activities		121 250
Net increase in cash and cash equivalents		54 500



Cash and cash equivalents at beginning of period	81 500
Cash and cash equivalents at end of period (Note 1)	$136 000

Notes to statement of cash flows

1. *Reconciliation of cash*

Cash and cash equivalents consist of cash at bank, bank bills, and deposits at call with financial institutions. Cash and cash equivalents included in the statement of cash flows comprise the following statement of financial position amounts:

	2018	2017
Cash at bank	$ 95 000	$ 47 500
Bank bills	25 000	21 500
Deposits at call	16 000	12 500
Cash and cash equivalents	$136 000	$ 81 500

2. *Reconciliation of net cash from operating activities to profit*

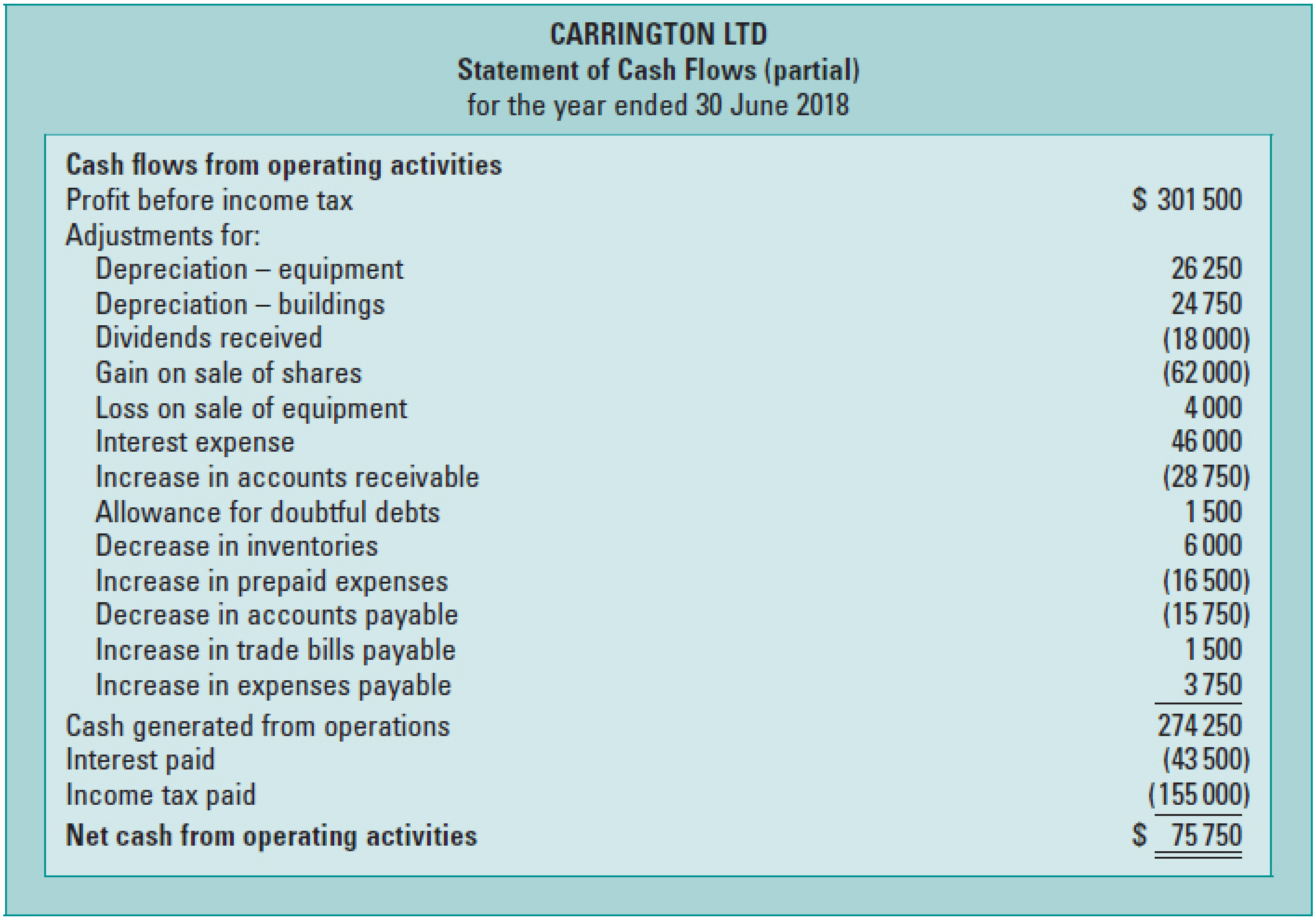
Profit for the period	$141 500
Depreciation – equipment	26 250
Depreciation – buildings	24 750
Dividends received	(18 000)
Gain on sale of shares	(62 000)
Loss on sale of equipment	4 000
Changes in assets and liabilities:	
Increase in current tax liability	5 000
Increase in accounts receivable	(28 750)
Allowance for doubtful debts	1 500
Decrease in inventories	6 000
Increase in prepaid expenses	(16 500)
Decrease in accounts payable	(15 750)
Increase in trade bills payable	1 500
Increase in expenses payable	3 750
Increase in interest payable	2 500
Net cash from operating activities	$ 75 750

3. *Non-cash financing and investing activities*

During the period, new equipment was purchased, part of which amounting to $125 000 was financed by means of a long-term mortgage loan.

Because the standard requires an entity to disclose separately interest paid and income tax paid as part of operating activities, the beginning point for the indirect method is profit ***before*** income tax, unlike the reconciliation note that begins with profit for the period. Profit before tax is then adjusted to eliminate non-cash expenses and income, as well as items that appear in investing and financing activities; for example, eliminate gains and losses on the sale of property, plant and equipment, and interest and dividends income if included in investing activities. The complete calculation of net cash from operating activities using the indirect method appears in figure 18.18.

Figure 18.18 Net cash from operating activities — indirect method



CARRINGTON LTD
Statement of Cash Flows (partial)
for the year ended 30 June 2018

Cash flows from operating activities	
Profit before income tax	$ 301 500
Adjustments for:	
Depreciation – equipment	26 250
Depreciation – buildings	24 750
Dividends received	(18 000)
Gain on sale of shares	(62 000)
Loss on sale of equipment	4 000
Interest expense	46 000
Increase in accounts receivable	(28 750)
Allowance for doubtful debts	1 500
Decrease in inventories	6 000
Increase in prepaid expenses	(16 500)
Decrease in accounts payable	(15 750)
Increase in trade bills payable	1 500
Increase in expenses payable	3 750
Cash generated from operations	274 250
Interest paid	(43 500)
Income tax paid	(155 000)
Net cash from operating activities	$ 75 750

Analysing the statement of cash flows

The statement of cash flows prepared for Carrington Ltd in figure 18.17 can be used to evaluate cash position and cash flows in five main ways:

1. explain the change that took place in the cash and cash equivalents balance
2. explain the effects of operating activities on the cash and cash equivalents balance
3. explain the effects of other activities, generally investing and financing
4. evaluate the possible effects of non-cash transactions and events disclosed in notes on future cash flows
5. evaluate the statement of cash flows for the current period against those of previous periods in terms of trends in relation to items (1) to (4).

In terms of item (1), the overall balance of cash and cash equivalents as defined in Note 1 to the statement of cash flows has increased over the period by $54 500. Based on the information given and the lack of comparative figures, this appears to be satisfactory. In terms of item (2), the operating activities of the company generated a positive cash flow of $75 750. This also indicates a satisfactory position. Analysis in terms of item (3) indicates that considerable capital expansion for buildings and equipment was funded by cash outlays of $343 500. There was a sell-off of shares in Bright Prospects Ltd that realised $137 000, together with a share issue that realised $126 250, and a debenture issue that increased cash by $75 000. Capital expansion, therefore, was not covered by using cash generated from operating activities.

Examining the statement for non-cash transactions (4) reveals that a mortgage loan of $125 000 was used to partly finance the purchase of new equipment. This will require the future commitment of cash to cover repayment of principal and interest. This item, when reviewed in conjunction with the debenture issue and the statement of financial position, indicates that debt has risen by a significant amount, placing future demands on cash resources.

It is not possible in this demonstration to carry out an analysis of trends in cash flows for the company, which is highly desirable.

LEARNING CHECK

☐ Preparation of a statement of cash flows can be done on a step-by-step basis, beginning with cash flows from operating activities, then investing activities and financing activities.

☐ The main notes to attach to a statement of cash flows show a reconciliation of cash and cash equivalents in the statement of cash flows to cash in the statement of financial position, and a reconciliation of cash flows from operating activities to profit.

☐ Analysis of a statement of cash flows can provide information about the causes of any changes in an entity's cash position over the period.

☐ Analysis of an entity's cash position requires an analysis of trends in statement of cash flows items over several years.

18.9 Limitations of the statement of cash flows

LO 9 **Identify the limitations of the statement of cash flows.**

In the introduction to this chapter, the usefulness of a statement of cash flows to the users of general purpose financial reports was emphasised. However, a number of limitations and deficiencies associated with the statement of cash flows should be borne in mind when assessing an entity's cash position. The more important of these are set out below.

Past cash flows reported. The statement of cash flows is, in essence, based on past cash flows. The statement is useful to the extent that the past cash flow information helps predict the future cash flow position. Heavy reliance on the statement of cash flows for any one reporting period can be dangerous, but this is overcome to some extent by the requirements in the standards to produce comparative figures for the current and previous financial years. Trends in cash flows can then be examined, but remember that the information in the statement of cash flows is only a part of the total analysis necessary in determining an entity's likely cash position.

Non-cash transactions and events. A large number of important investing and financing activities may not affect cash flows in the financial year covered by the statement. Significant transactions/events such as debt–equity swaps, the financing of non-current asset purchases by long-term debt, the use of finance leases, and barter transactions do not appear in the statement but are appendages by way of note. Even the disclosure in a note of non-cash transactions gives no indication of the impact on future cash flows of such transactions.

Disclosures in notes to the statement. In addition to the non-cash transactions mentioned above, other important information relevant to cash position and future cash flows does not appear in the statement of cash flows. The accounting standard makes it mandatory to disclose some of this information in notes to the statement. Such matters as details of any business entities acquired and disposed of must be disclosed in note form. In evaluating an entity's future cash flows, careful attention must be given to information contained in the notes to the statement.

Liquidity/solvency. The statement of cash flows as required under IAS 7/AASB 107 goes only some of the way to enabling users to establish the liquidity/solvency position of an entity. The entity is solvent when the assets of the entity, when realised, are sufficient to pay off all debts as they fall due. This information is not provided by the statement of cash flows. Perhaps in future, standard setters will issue additional documents that deal with solvency.

Management manipulation. Management may for a number of reasons wish to make cash flows appear better or worse than they actually were during a reporting period. Cash flows can be manipulated in various ways, including prepayment, delaying cash payments, postponing acquisition of large investments, deferring debenture issues, barter, and finance leasing. The effect of such practices in one reporting period will be felt in subsequent periods. It is essential, therefore, not to place too much emphasis on the statement of cash flows for one period. Comparative figures are necessary to offset possible management manipulation.

Costs. The direct method of converting accrual-basis revenues and expenses to cash flows from operating activities requires additional costs to produce the information required. Under IAS 7/AASB 107, entities are able to choose between the direct and indirect methods of arriving at cash flows from operating activities. The direct method is encouraged by the standard because it provides additional information. It is believed, however, that many entities opt for the indirect method because it is less costly to implement than the direct method.

LEARNING CHECK

- ☐ Information provided by a statement of cash flows has limitations for decision-making purposes in that it reports only past cash flows, which may not be good predictors of future cash flows.
- ☐ The statement of cash flows is also of limited use because of the existence of many non-cash transactions and events, including the acquisition of other business entities, which may affect the predictions of future cash flows.
- ☐ Statements of cash flows are not very helpful in assessing an entity's future liquidity and solvency position.
- ☐ The direct method of determining cash flows from operating activities, which is encouraged by the standard as providing better cash flow information, is more costly to apply than the indirect method.

KEY TERMS

Cash, p. 755
Cash equivalents, p. 755
Financing activities, p. 757
Investing activities, p. 757
Operating activities, p. 756

DISCUSSION QUESTIONS

1. Discuss the purposes of the statement of cash flows.
2. Describe the concept of cash used in the preparation of the statement of cash flows.
3. Explain why cash flows from operating activities are important to users of a statement of cash flows.
4. An accounting student asked the following question: 'Why does the cash on hand balance as at the end of December 2016 in the statement of cash flows not concur with the cash balance shown in current assets in the statement of financial position?' Provide the student with an explanation.
5. Distinguish between cash flows from operating activities, investing activities and financing activities. Identify three separate cash flows where the accounting standard appears to allow classification under more than one activity. Explain why such choice of classification is allowed.
6. A student of accounting, after studying Illustrative Example A to AASB 107, was confused. Long-term borrowings are recognised as a financing activity of an entity, yet interest paid is included in cash flow from operations. After some consideration the student concluded, 'Interest paid should be regarded as part of the financing activities of an entity, and be classified in the statement of cash flows accordingly.' Explain if you support the conclusion reached by the student.
7. Describe the direct method of preparing the cash flows from operating activities in a statement of cash flows. Contrast this with the indirect method.
8. Laura Prebble, the owner-manager of a small business, had carefully monitored her cash position over the past financial year, and was pleased to note at the end of the year that the cash position was strong, and had shown a healthy 50% increase over the year. When presented with the income statement for the year, she was dismayed to note that the profit earned in the last year had deteriorated significantly and had become a loss for the current period. In her anger, she accuses you of having made errors in the accounting since 'such a silly situation could not possibly exist'. Draft a response to Laura.
9. Wayne Deng is reviewing the statement of cash flows for his technology business. The statement has been provided by his accountant. He is dismayed that the statement shows net cash outflows for investing activities. Discuss if Wayne should be concerned by this.

10. ‘A statement of cash flows is of limited use as a business needs to know if it will have sufficient cash to support its planned future activities.’ Discuss the merit of this statement focusing on both the purpose and limitations of a statement of cash flows.

EXERCISES

Exercise 18.1 EFFECTS OF TRANSACTIONS ON STATEMENT OF CASH FLOWS LO 4

Below is a list of transactions completed by Direct Fashion during 2017. Ignore GST. For each transaction, indicate (a) the section (i.e. operating, investing or financing) of the statement of cash flows (SCF) in which the cash effect is reported (if the effect is not reported in any of the sections, place NA on the line); (b) the amount; and (c) whether the effect would be an inflow (+) or outflow (−).

Transaction	(a) Section of SCF	(b) Amount	(c) Inflow (+) Outflow (−)
1. Accounts receivable decreased by $30 000 during the year	________	________	________
2. Sold for $50 000 cash equipment with a carrying amount of $25 000	________	________	________
3. The owner contributed cash of $40 000	________	________	________
4. Purchased a motor vehicle for $27 000, giving $7000 cash and by borrowing $20 000	________	________	________
5. Borrowed $30 000 with a 3-month bill	________	________	________
6. Paid interest on borrowings of $2000	________	________	________
7. Purchased equity investments for $50 000 cash	________	________	________
8. Repaid fixed-term loan principal of $40 000	________	________	________
9. Accounts payable decreased by $15 000 during the year	________	________	________
10. Owner withdrew $18 000 in cash for personal use	________	________	________

Exercise 18.2 CONVERSION FROM ACCRUAL-BASIS ITEMS TO CASH BASIS LO 5

The information below was taken from the general ledger accounts of Muhria Tran, who uses the accrual basis of accounting.

Required

A. Calculate the amount of cash collected from customers during 2018.
B. Calculate the amount of cash paid to suppliers for purchases during 2018.
C. Calculate the amount of cash paid to suppliers of services (including employees) during 2018.

MUHRIA TRAN

	30 June 2018	2017
Accounts receivable	$ 115 800	$ 78 600
Inventory	48 360	52 200
Prepaid insurance	2 200	2 700
Accounts payable	35 500	37 700
Wages payable	3 200	4 700

Sales	270 000
Cost of sales	148 000
Expenses (including $47 000 depreciation)	88 000

Exercise 18.3 CASH FLOW FROM OPERATING ACTIVITIES, INDIRECT METHOD LO 5

The simple income statement for Jack's Blinds is shown below:

JACK'S BLINDS
Income Statement
for the year ended 30 June 2017

Sales		$ 435 000
Less: Cost of sales		
Beginning inventory	$ 68 500	
Purchases	160 000	
Goods available for sale	228 500	
Ending Inventory	58 500	
Cost of sales		170 000
GROSS PROFIT		265 000
Expenses		
Selling expenses	75 000	
Administrative expenses	91 500	166 500
PROFIT		$ 98 500

Additional information

1. Accounts receivable increased by $8250 during the year.
2. Accounts payable to suppliers of inventory increased by $3250 during the year.
3. Wages payable decreased by $6250 during the year (including selling expenses).
4. Administrative expenses include depreciation expense of $31 500.

Required

Prepare the net cash flows from operating activities for the year ended 30 June 2017 for Jack's Blinds using the indirect method.

Exercise 18.4 INVESTING AND FINANCING ACTIVITIES LO 4, 8

The following transactions were undertaken by Porschet Ltd during the financial year ended 30 June 2017. Ignore GST.

1. Issued ordinary shares for cash, $1 000 000.
2. Purchased land to be held for future expansion for $900 000 cash.
3. Paid off a long-term $360 000 loan plus interest of $32 000.
4. Sold for $480 000 used cars with a carrying amount of $200 000.
5. Paid cash dividends of $220 000.
6. Purchased machinery factory, giving $120 000 cash and signing a mortgage loan for $400 000.
7. Purchased shares in MBW Ltd to be held as an investment for $400 000 cash.
8. Sold a long-term government bond, with a carrying amount of $100 000, for $198 000, including $12 000 accrued interest.

9. Purchased shares in Forden Ltd to be held as a long-term investment, paying $380 000 cash.
10. Issued 5% debentures for $1 400 000.

Required

A. Prepare the net cash flow used in investing activities section of the statement of cash flows using the classification shown in Illustrative Example A of IAS 7/AASB 107.
B. Prepare the net cash used in financing activities section of the statement of cash flows using the classification shown in Illustrative Example A of IAS 7/AASB 107.

Exercise 18.5 RECONCILING CASH FROM OPERATING ACTIVITIES TO PROFIT LO 4

Following are the descriptions of changes in selected accounts and other events for Krimp Café Pty Ltd.

1. Decrease in accounts receivable ____________________
2. Increase in inventory ____________________
3. Cash proceeds from sale of shares ____________________
4. Depreciation expense ____________________
5. Increase in accounts payable ____________________
6. Decrease in accrued expenses ____________________
7. Increase in trade bills receivable ____________________
8. Cash dividends paid ____________________
9. Increase in interest payable ____________________

Required

Indicate whether each item should be added (A) to or deducted (D) from profit when reconciling cash from operating activities. If the item should be neither added nor deducted, indicate with an (N).

Exercise 18.6 STATEMENT OF CASH FLOWS FOR SOLE TRADER, DIRECT METHOD LO 5

Kim Khan has been in business as a sole trader for the past 5 years. The comparative statements of financial position for the years 2016 and 2017 and a summarised income statement for the year ended 30 June 2017 are shown below:

KIM KHAN
Comparative Statements of Financial Position
as at 30 June

	2016	2017
CURRENT ASSETS		
Cash	—	$ 540
Accounts receivable	4 290	3 150
Inventory	6 000	6 600
Prepaid insurance	300	360
NON-CURRENT ASSETS		
Equipment	19 200	25 500
Accumulated depreciation – equipment	(6 000)	(7 500)
Land	20 400	24 000
Motor vehicles	14 550	15 600
Accumulated depreciation – motor vehicles	(5 490)	(6 300)

TOTAL ASSETS	53 250	61 950
CURRENT LIABILITIES		
Bank overdraft	300	—
Accounts payable	6 150	7 950
NON-CURRENT LIABILITIES		
Long-term mortgage	14 100	18 900
TOTAL LIABILITIES	20 550	26 850
NET ASSETS	$ 32 700	$ 35 100
EQUITY		
Kim Khan, Capital	$ 32 700	$ 35 100
TOTAL EQUITY	$ 32 700	$ 35 100

KIM KHAN
Income Statement
for the year ended 30 June 2017

Sales	$ 16 800
Less: Cost of sales	5 100
GROSS PROFIT	11 700
Less: Expenses (including depreciation)	8 610
PROFIT	$ 3 090

Additional information

Kim had contributed capital during the year for $6000 cash and had made cash withdrawals during the year. The bank overdraft was considered to be part of the entity's everyday cash management activities.

Required

Prepare a statement of cash flows using the direct method for Kim Khan's business for the year ended 30 June 2017.

Exercise 18.7 STATEMENT OF CASH FLOWS AND GST **GST** **LO 5**

The business owned by Xavier Long made the following cash transactions during the reporting period. GST of 10% was applicable on all transactions.

1. Purchased equipment for $22 000 (including GST).
2. Purchased inventory for $44 000 (including GST).
3. Sold inventory for $110 000 (including GST).
4. Purchased office supplies for $8800 (including GST).
5. Sold an item of plant for $66 000 (including GST).
6. A net amount of $9000, representing GST payable and receivable, excluding the above transactions, was paid to the Australian Taxation Office.

Required

Prepare a statement of cash flows using the direct method for the business for the period. Treat all GST items as part of operating activities.

Exercise 18.8 DIRECT AND INDIRECT METHODS **LO 8**

The comparative statements of financial position of Hutt Electrical as at 30 June 2016 and 2017 and the income statement for the year ended 30 June 2017 are shown opposite.

Additional information

- Other expenses include $55 500 depreciation expense.
- All sales and purchases of inventory are on credit.

Required

A. Prepare a statement of cash flows from operating activities only for Hutt Electrical for the year ended 30 June 2017 using the direct method.
B. Repeat requirement A using the indirect method.

HUTT ELECTRICAL
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	$ 22 500	$ 69 000
Accounts receivable	82 500	70 500
Inventory	165 000	216 000
Prepaid insurance	7 500	1 500
Property	190 500	172 500
Plant and equipment	757 500	1 072 500
Accum. depreciation – plant and equipment	(102 000)	(154 500)
TOTAL ASSETS	$ 1 123 500	$ 1 447 500
LIABILITIES AND EQUITY		
Accounts payable	$ 64 500	$ 75 000
Interest payable	7 500	4 500
Other accrued expenses	13 500	18 000
Mortgage payable	367 500	442 500
Share capital	500 000	750 000
Retained earnings	170 500	157 500
TOTAL LIABILITIES AND EQUITY	$ 1 123 500	$ 1 447 500

HUTT ELECTRICAL
Income Statement
for the year ended 30 June 2017

Sales		$ 1 047 000
Less: Cost of sales		780 000
GROSS PROFIT		267 000
Add: Other income:		
Rent income	$ 9 000	
Gain on sale of property	20 000	29 000
		296 000

Less: Expenses:		
Interest expense	34 500	
Loss on sale of plant	6 500	
Other expenses	231 000	272 000
PROFIT		$ 24 000

Exercise 18.9 STATEMENT OF CASH FLOWS FOR SOLE TRADER AND ANALYSIS **LO 5**

The financial statements for the business of Trinh's Nail Supplies for the past two years are presented below.

Additional information

(a) All purchases and sales of inventories are on credit. All purchases of office supplies are for cash.
(b) The bank overdraft is considered to be part of the entity's cash management function.
(c) During the year ended 30 June 2017, the owner, Trinh, withdrew $12 800 in cash for personal use.
(d) The entity sold some fixtures for $1200 cash during the current year. These fixtures initially cost $4200 and had been written down to a carrying amount at the date of sale of $2000.
(e) Depreciation of fixtures has been included in 'other expenses' for the year ended 30 June 2017. All remaining other expenses were paid in cash.

TRINH'S NAIL SUPPLIES
Comparative Income Statements
for the year ended 30 June

	2016	2017
Sales	$ 400 000	$ 500 000
Cost of sales	350 000	458 000
GROSS PROFIT	50 000	42 000
Interest income	1 000	2 000
Loss on sale of fixtures	—	800
	51 000	43 200
Office supplies used	10 000	11 000
Other expenses	29 000	29 000
	39 000	42 000
Profit	$ 12 000	$ 3 200

TRINH'S NAIL SUPPLIES
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	$ 4 400	—
Accounts receivable	42 000	$ 60 000
Inventory	80 000	40 000
Office supplies	2 000	5 000
Freehold property	60 000	80 000
Fixtures	40 000	46 000
Accumulated depreciation – fixtures	(16 000)	(20 200)
Investments	6 000	16 000
	$ 218 400	$ 226 800

LIABILITIES AND EQUITY		
Bank overdraft	—	$ 4 000
Accounts payable	$ 26 000	40 000
Trinh, Capital	192 400	182 800
	$ 218 400	$ 226 800

Required

A. Prepare the statement of cash flows for Trinh's Nail Supplies for the year ended 30 June 2017, using the direct method.

B. Comment on the cash flow position of the entity as shown in the statement of cash flows.

Exercise 18.10 PROPRIETARY COMPANY, WITH DIRECT AND INDIRECT METHODS LO 8

The following comparative statements of financial position and income statement are for the business of Bargains Galore Pty Ltd:

BARGAINS GALORE PTY LTD
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	$ 20 000	$ 30 000
Accounts receivable	74 000	52 000
Inventory	60 000	88 000
Prepaid expenses	44 000	36 000
Plant and equipment	600 000	648 000
Accumulated depreciation – plant and equipment	(180 000)	(230 000)
	$ 618 000	$ 624 000
LIABILITIES AND EQUITY		
Accounts payable	$ 96 000	$ 60 000
Expenses payable	22 000	40 000
Current tax liability	50 000	44 000
Share capital	300 000	300 000
Retained earnings	150 000	180 000
	$ 618 000	$ 624 000

BARGAINS GALORE PTY LTD
Income Statement
for year ended 30 June 2017

INCOME	
Sales revenue	$ 800 000
EXPENSES	

Cost of sales	$ 408 000	
Wages and salaries	160 000	
Depreciation – plant and equipment	50 000	
Other expenses	78 000	
Income tax expense	44 000	740 000
PROFIT		$ 60 000

Additional information

(a) All sales and purchases of inventory are on credit.
(b) Income tax is paid in one instalment during the year.
(c) A dividend had been paid to shareholders.
(d) Additional plant had been acquired for a cash outlay.

Required

A. Prepare the statement of cash flows for the company for the year ended 30 June 2017. Use the direct method.
B. Repeat requirement A using the indirect method.

Exercise 18.11 STATEMENT OF CASH FLOWS FOR SOLE TRADER AND ANALYSIS **LO 5**

The financial statements for the business of Jet's Ski Equipment are shown below:

JET'S SKI EQUIPMENT
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	—	$ 27 000
Accounts receivable	$ 42 000	51 000
Inventory	144 000	168 000
Store equipment	90 000	108 000
Accumulated depreciation – store equipment	(27 000)	(45 000)
	120 000	60 000
Land	180 000	180 000
Buildings	(9 000)	(15 000)
Accumulated depreciation – buildings	$ 540 000	$ 534 000
LIABILITIES AND EQUITY		
Accounts payable	$ 72 000	$ 78 000
Bank overdraft	30 000	—
J. Waters, Capital	438 000	456 000
	$ 540 000	$ 534 000

JET'S SKI EQUIPMENT
Income Statement

for year ended 30 June 2017

INCOME		
Sales revenue		$ 270 000
EXPENSES		
Cost of sales	$ 144 000	
Depreciation – store equipment	21 000	
Depreciation – buildings	6 000	
Other expenses	60 000	
Loss on sale of land	12 000	
Loss on sale of equipment	9 000	252 000
PROFIT		$ 18 000

Additional information

(a) All purchases and sales of inventories are on credit.

(b) On 1 July 2016, J. Waters injected a further capital contribution of $21 000 cash into the business.

(c) During the year, store equipment costing $18 000 with a carrying amount of $15 000 was sold for $6000 cash.

(d) Half the land on hand at the beginning of the year was sold for $48 000 cash.

(e) During the year, the owner withdrew $6000 from the business bank account in order to pay his personal income tax bill and $300 per week for 50 weeks for private consumption.

Required

A. Prepare the statement of cash flows for Jet's Ski Equipment for the year ended 30 June 2017, using the direct method.

B. Comment on the cash flow position as shown in the entity's statement of cash flows.

Exercise 18.12 STATEMENT OF CASH FLOWS FOR SOLE TRADER **LO 5**

Comparative statements of financial position as at 31 December 2017 and 2016 and the income statement for 2017 for W. Yu are set out below.

W. YU
Comparative Statements of Financial Position
as at 31 December

	2017	2016
ASSETS		
Cash on hand and at bank	$ 111 600	$ 134 400
Accounts receivable	161 400	151 200
Inventory	196 200	208 800
Plant and equipment	408 000	300 000
Accumulated depreciation – plant and equipment	(180 000)	(162 000)
	$ 697 200	$ 632 400
LIABILITIES AND EQUITY		
Accounts payable	$ 140 400	$ 132 600
Expenses payable	77 400	83 400

Long-term loan payable	60 000	—
W. Yu, Capital	419 400	416 400
	$ 697 200	$ 632 400

W. YU
Income Statement
for the year ended 31 December 2017

Sales		$ 592 200
Less: Cost of sales	350 000	
GROSS PROFIT	242 200	
Less: Expenses (Including depreciation)	209 200	
PROFIT	$ 33 000	

No plant and equipment was sold during the year. W. Yu withdrew $30 000 in cash during the year.

Required

Prepare a statement of cash flows for the year ended 31 December 2017 in accordance with the direct method.

Exercise 18.13 CASH FLOW FROM OPERATING ACTIVITIES

LO 8

The comparative statements of financial position of Cresta Ltd as at 30 June 2016 and 2017, and the income statement and statement of changes in equity for the year ended 30 June 2017 are shown overleaf.

Additional information

(a) Other expenses include $66 000 depreciation expense on machinery and insurance expense of $10 500.

(b) All sales and purchases are on credit.

(c) Lease income is earned as a result of renting part of the property that is in excess of the company's needs.

Required

Prepare the cash flows from operating activities ***only*** for Cresta Ltd for the year ended 30 June 2017, using the direct method. Ignore taxes.

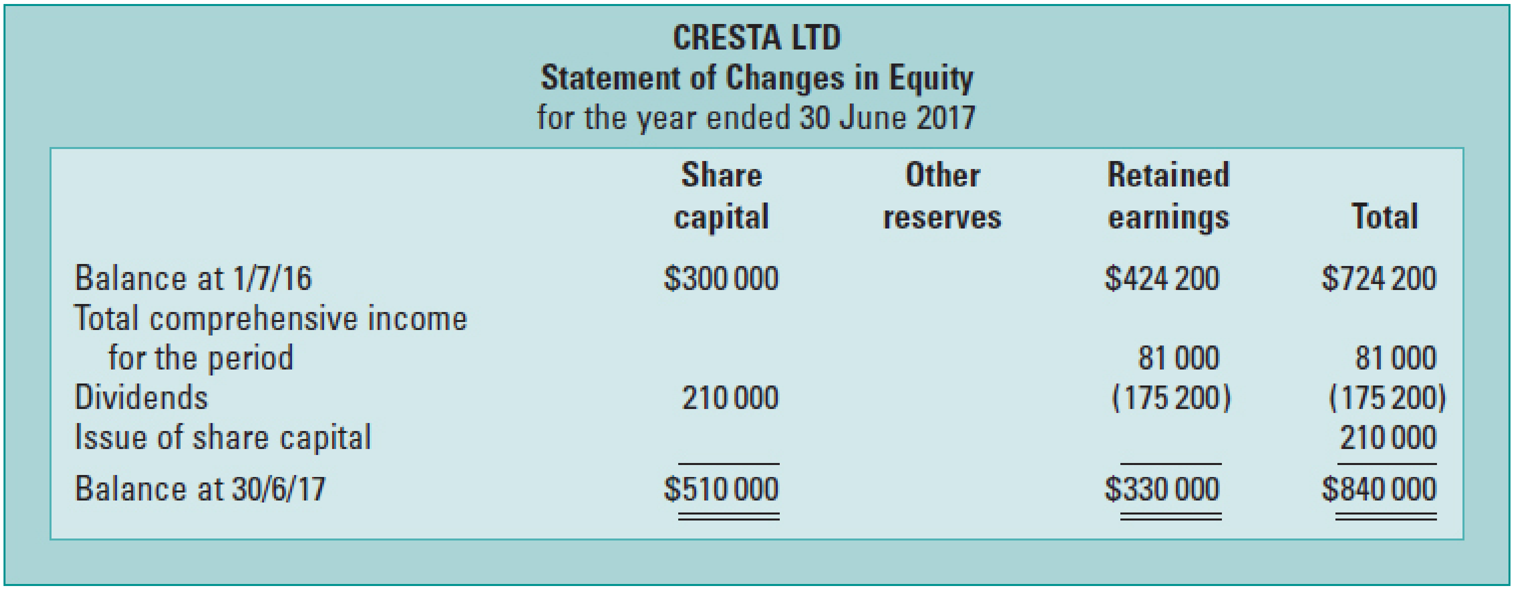
CRESTA LTD
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	$ 19 500	$ 69 000
Accounts receivable	112 500	100 500
Inventory	198 000	246 000
Prepaid insurance	10 500	7 500
Property	134 400	120 000
Machinery	900 000	1 080 000
Accumulated depreciation: machinery	(201 000)	(243 000)

	$ 1 173 900	$ 1 380 000
LIABILITIES AND EQUITY		
Accounts payable	$ 66 000	$ 75 000
Interest payable	10 200	9 000
Other accrued expenses	13 500	21 000
Mortgage payable	360 000	435 000
Share capital	300 000	510 000
Retained earnings	424 200	330 000
	$ 1 173 900	$ 1 380 000

CRESTA LTD
Income Statement
for the year ended 30 June 2017

Sales		$ 1 260 000
Less: Cost of sales		843 000
GROSS PROFIT		417 000
Add: Other income:		
Lease income	$ 22 500	
Gain on the sale of machinery	27 000	49 500
		466 500
Less: Expenses:		
Interest expense	34 500	
Loss on the sale of property	30 000	
Other expenses	321 000	385 500
PROFIT		$ 81 000



CRESTA LTD
Statement of Changes in Equity
for the year ended 30 June 2017

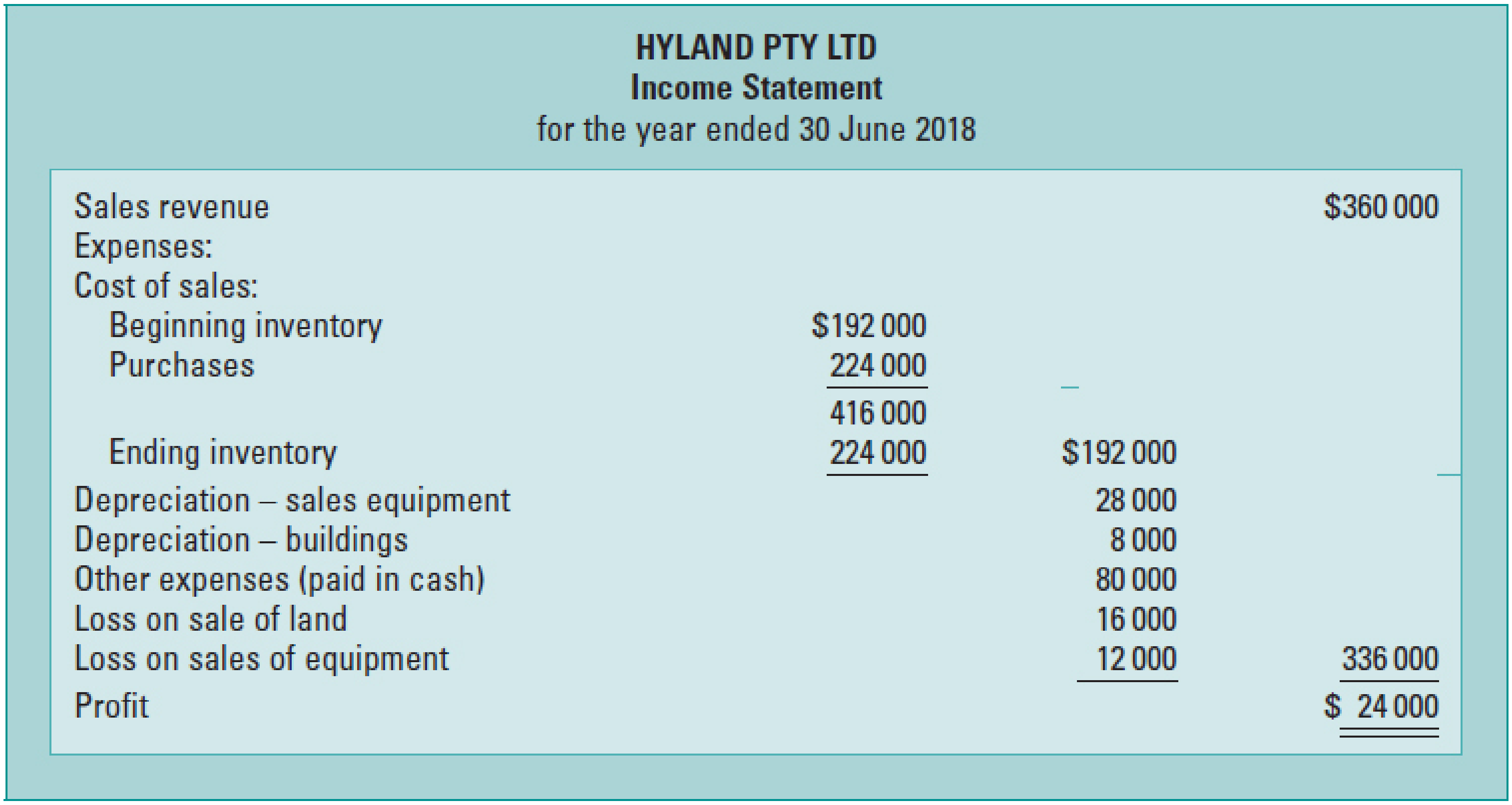
	Share capital	Other reserves	Retained earnings	Total
Balance at 1/7/16	$300 000		$424 200	$724 200
Total comprehensive income for the period			81 000	81 000
Dividends	210 000		(175 200)	(175 200)
Issue of share capital				210 000
Balance at 30/6/17	$510 000		$330 000	$840 000

Exercise 18.14 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 8**

Some of the most recent financial statements for Hyland Pty Ltd are shown below:

HYLAND PTY LTD
Comparative Statements of Financial Position
as at 30 June

	2017	2016
ASSETS		
Cash at bank	—	$ 36 000
Accounts receivable	$ 56 000	68 000
Inventory	192 000	224 000
Sales equipment	120 000	144 000
Accumulated depreciation – sales equipment	(36 000)	(60 000)
Land	160 000	80 000
Buildings	240 000	240 000
Accumulated depreciation – buildings	(12 000)	(20 000)
	$ 720 000	$ 712 000
LIABILITIES AND EQUITY		
Accounts payable	$ 96 000	$ 104 000
Bank overdraft	40 000	—
Equity	584 000	608 000
	$ 720 000	$ 712 000



HYLAND PTY LTD
Income Statement
for the year ended 30 June 2018

Sales revenue			$360 000
Expenses:			
Cost of sales:			
Beginning inventory	$192 000		
Purchases	224 000		
	416 000		
Ending inventory	224 000	$192 000	
Depreciation – sales equipment		28 000	
Depreciation – buildings		8 000	
Other expenses (paid in cash)		80 000	
Loss on sale of land		16 000	
Loss on sales of equipment		12 000	336 000
Profit			$ 24 000

Additional information

(a) All purchases and sales of inventories are on credit.

(b) On 1 July 2017, the shareholders injected a further capital contribution of $28 000 cash into the business.

(c) During the year, sales equipment costing $24 000 and written down to a carrying amount of $20 000 was sold for $8000 cash.

(d) Half of the land on hand at the beginning of the year was sold for $64 000 cash.

(e) During the year, the company withdrew cash from the business bank account in order to pay cash dividends to its shareholders.

(f) The bank overdraft in the company is considered to be an integral part of the company's cash management arrangements.

(g) Ignore income tax.

Required

Prepare the statement of cash flows for Hyland Pty Ltd for the year ended 30 June 2018, using the direct method.

Exercise 18.15 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 8**

Below are the comparative statements of financial position of Lithium Ltd.

LITHIUM LTD
Comparative Statements of Financial Position
as at 30 June

	2017		2018	
ASSETS				
Petty cash		$ 200		$ 400
Cash at bank		24 200		30 600
Bank bills		10 000		12 000
Accounts receivable	$102 960		$127 400	
Allowance for doubtful debts	(6 960)	96 000	(11 400)	116 000
Inventory		74 600		70 800
Motor vehicles	42 000		50 400	
Acc. depr. – motor vehicles	(10 000)	32 000	(12 800)	37 600
Office furniture	16 000		18 400	
Acc. depr. – off. furn.	(7 600)	8 400	(8 400)	10 000
		$245 400		$277 400
LIABILITIES AND EQUITY				
Accounts payable		$ 45 000		$ 47 200
Current tax liability		3 200		4 200
Share capital		165 000		196 000
Retained earnings		32 200		30 000
		$245 400		$277 400

Additional information

(a) Income statement details were: sales revenue $750 000; cost of sales $603 000; expenses $116 360 (excludes depreciation and carrying amount of vehicle sold); bad debts expense $14 440; and tax expense $4200.

(b) A dividend was paid during the year.

(c) A vehicle that cost $5600 originally was sold during the year for $3000. The vehicle had been depreciated by $3200 at date of sale.

(d) The company pays tax in one instalment. The single instalment of $3200 due by 21 October 2017 was paid.

Required

Prepare a statement of cash flows for the year ended 30 June 2018 in accordance with the direct method. Include any appropriate notes.

PROBLEMS

Basic
Moderate
Challenging

Problem 18.1 STATEMENT OF CASH FLOWS FOR A COMPANY LO 5

The statement of cash flows for Carsales.com Ltd, a company listed on the Australian Securities Exchange, follows.

CARSALES.COM LTD
Statement of Cash Flows
For the year ended 30 June 2013

	Notes	2013 $000	2012 $000
Cash flows from operating activities			
Receipts from customers (including GST)		234 760	196 870
Payments to suppliers and employees (including GST)		(110 837)	(94 261)
Interest received		1 343	1 322
Interest paid		(5)	(31)
Income taxes paid		(34 510)	(29 688)
Net cash inflow from operating activities	29	90 751	74 212
Cash flows from investing activities			
Payment for purchase of associates		(104 169)	—
Payments for property, plant and equipment		(1 268)	(5 349)
Payments for domain names		(13)	(23)
Net outstanding receipts (payment)		2 427	(2 500)
Payments for computer software		(1 555)	(235)
Proceeds from disposal of assets		13	11
Payment for investment in joint venture		(250)	—
Net cash (outflow) from investing activities		(104 815)	(8 096)
Cash flows from financing activities			
Proceeds from issues of shares and other equity securities		8 355	3 013
Proceeds from borrowings		55 000	—
Payments for shares bought back		—	(9 999)
Dividends paid to company shareholders	21	(75 086)	(51 035)
Net cash (outflow) from financing activities		(11 731)	(58 021)
Net (decrease) increase in cash and cash equivalents		(25 795)	8 095
Cash and cash equivalents at the beginning of the financial year		40 935	32 840
Cash and cash equivalents at end of year	9	15 140	40 935

Required

A. Explain the information that would be presented in Note 29 of Carsales.com Ltd's financial statements.
B. Explain the information that would be presented in Note 9 of Carsales.com Ltd's financial statements.
C. Discuss how it would be possible to research whether the direct or indirect method of presenting cash flows from operating activities is more useful to investors.

Problem 18.2 STATEMENT OF CASH FLOWS FOR A SOLE TRADER **LO 5, 6**

Financial figures of the business of C. Wilson for the last 2 years are shown below.

C. WILSON
Comparative Statements of Financial Position
as at 30 June

	2017		2018	
ASSETS				
Cash at bank				$ 2 820
Accounts receivable		$ 4 200		5 100
Inventory		14 400		16 800
Plant and equipment	$ 9 000		$10 800	
Accumulated depreciation – plant and equipment	4 200	4 800	4 500	6 300
Land		12 000		6 000
Buildings	12 000		12 000	
Accumulated depreciation – buildings	600	11 400	840	11 160
		$46 800		$48 180
LIABILITIES AND EQUITY				
Accounts payable		$ 7 200		$ 7 800
Bank overdraft		3 000		—
C. Wilson, Capital		36 600		40 380
		$46 800		$48 180

The income statement for the business for the year ended 30 June 2018 reveals the following details:

C. Wilson
Income Statement
for the year ended 30 June 2018

INCOME		
Sales revenue		$ 18 000
OTHER INCOME		
Gain from sale of land		2 400
		20 400
EXPENSES		
Cost of sales	$ 9 600	
Depreciation of plant and equipment	1 200	
Depreciation of buildings	240	
Loss of sale of plant	180	
Other expenses	2 640	13 860
PROFIT		$ 6 540

Additional information

(a) During the year ended 30 June 2018, Wilson withdrew $30 per week in cash for 52 weeks for private purposes.

(b) Wilson also withdrew $1200 on her business bank account to pay her personal income tax.
(c) Land, shown in the accounts at $6000, was sold during the year for $8400.
(d) Plant costing $1800 and written down to $900 was sold for $720.
(e) Ignore GST.

Required

A. Prepare a statement of cash flows for the year ended 30 June 2018 using the direct method.
B. Prepare the note to the above statement reconciling cash flows from operating activities with profit.

Problem 18.3 STATEMENT OF CASH FLOWS FOR A PARTNERSHIP **LO 5**

The comparative statement of financial position of the partnership of Murray and Darling as at 30 June 2016 and 30 June 2017 were as follows:

MURRAY AND DARLING
Comparative Statements of Financial Position
as at 30 June

	2016		2017	
CURRENT ASSETS				
Cash at bank	$ 100		$ 300	
Accounts receivable (net)	83 400		90 000	
Bills receivable	5 200		3 800	
Inventory	56 300	$145 000	64 700	$158 800
NON-CURRENT ASSETS				
Furniture and equipment	42 000		47 500	
Accumulated depreciation	(6 400)		(7 200)	
Motor vehicles	36 800		27 600	
Accumulated depreciation	(8 200)	64 200	(8 500)	59 400
		$209 200		$218 200
CURRENT LIABILITIES				
Bank overdraft	$26 000		$ 4 000	
Accounts payable	23 600		25 500	
Murray, Advance	10 000	$ 59 600	8 000	$ 37 500
EQUITY				
Murray, Capital	80 000		92 000	
Darling, Capital	60 000		65 000	
Murray, Retained earnings	6 400		14 400	
Darling, Retained earnings	3 200	149 600	9 300	180 700
		$209 200		$218 200

Additional information

(a) Each partner's retained earnings account has been credited with a salary of $12 000 as part of their profit distribution.
(b) Drawings in cash for each partner in anticipation of profits amount to:

Murray	$ 9 900
Darling	10 400

(c) A motor vehicle that cost $9200 and had been written down to $3100 was sold for $3750.
(d) Expenses involving a flow of cash amounted to $75 000.
(e) Sales for the year were $300 000 and cost of sales was $184 050.

Required

Prepare a statement of cash flows for the partnership for the year ended 30 June 2017 using the direct method.

Problem 18.4 STATEMENT OF CASH FLOWS FOR A PARTNERSHIP LO 5

A & L Mechanics is operated by Adrian and Len in partnership. Financial data for the partnership follow.

A & L MECHANICS
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash	$ 32 800	$ 38 000
Inventory	80 000	104 000
Accounts receivable	32 800	30 000
Prepaid insurance	1 200	1 400
Long-term investments	28 000	40 000
Motor vehicles	168 000	180 000
Accumulated depreciation – motor vehicles	(52 000)	(72 000)
	$ 290 800	$ 321 400
LIABILITIES AND EQUITY		
Accounts payable	$ 40 000	$ 28 000
Accrued sundry expenses	700	550
Long-term loan	70 000	50 000
Adrian, Capital	40 000	60 000
Retained earnings	14 000	60 700
Len, Capital	80 000	80 000
Retained earnings	46 100	42 150
	$ 290 800	$ 321 400

A & L MECHANICS
Income Statement
for the year ended 30 June 2017

INCOME	
Sales	$ 900 000
Gain from sale of motor vehicle	2 000

	902 000
EXPENSES	
Cost of sales	640 000
General expenses (including depreciation)	136 000
	776 000
PROFIT	$ 126 000

Additional information

All profits/losses are shared equally by Adrian and Len who also withdrew cash during the year. The vehicle that was sold had originally cost $20 000 (second-hand) and had been depreciated down to $4000.

Required

A. Prepare a statement of cash flows for the year ended 30 June 2017 using the direct method.
B. Comment on the statement of cash flows with respect to the operating, investing and financing activities of A & L Mechanics.

Problem 18.5 STATEMENT OF CASH FLOWS, DIRECT AND INDIRECT METHODS **LO 8**

The simplified financial statements of Titanium Ltd appear below:

TITANIUM LTD
Statement of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash	$ 37 200	$ 15 600
Accounts receivable	33 600	16 800
Inventory	30 000	42 000
Plant and equipment	72 000	93 600
Accumulated depreciation – plant and equipment	(26 400)	(28 800)
	$ 146 400	$ 139 200
LIABILITIES AND EQUITY		
Accounts payable	$ 32 400	$ 27 600
Current tax liability	6 000	9 600
Loan payable	32 400	37 200
Share capital	41 600	41 600
Retained earnings	34 000	23 200
	$ 146 400	$ 139 200

TITANIUM LTD
Income Statement
for the year ended 30 June 2018

Sales	$ 264 000

Cost of sales		216 000
GROSS PROFIT		48 000
Selling expenses	$ 16 800	
Administrative expenses	9 600	
Interest expense	1 200	27 600
Profit before tax		20 400
Income tax expense		4 800
PROFIT		$ 15 600

Additional information

1. Dividends declared and paid were $26 400.
2. During the year equipment was sold for $10 200 cash. The equipment cost $21 600 and had a carrying amount of $10 200 at the time of sale.
3. Depreciation expense is included as a selling expense in the income statement.
4. All sales and purchases are on credit.

Required

A. Prepare a statement of cash flows using the indirect method.
B. Prepare a statement of cash flows using the direct method.

Problem 18.6 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 6, 8**

The following data relate to Emporium Ltd:

EMPORIUM LTD
Income Statement
for the year ended 30 June 2017

INCOME		
Sales revenue		$ 1 215 000
EXPENSES		
Cost of sales	$ 720 000	
Depreciation – machinery	30 000	
Depreciation – buildings	15 000	
Other expenses	331 500	1 096 500
PROFIT		$ 118 500

EMPORIUM LTD
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	$ 55 500	$ 39 000
Accounts receivable	144 000	135 000
Inventory	120 000	150 000

Investments	15 000	18 000
Machinery (net)	225 000	300 000
Buildings (net)	150 000	240 000
Land	67 500	150 000
	$ 777 000	$ 1 032 000
LIABILITIES AND EQUITY		
Accounts payable	$ 97 500	$ 112 500
Expenses payable	6 000	4 500
Mortgage payable	132 000	225 000
Share capital	375 000	450 000
Retained earnings	166 500	240 000
	$ 777 000	$ 1 032 000

Additional information

(a) Dividends were paid during the year.

(b) The increases in investments and machinery were from cash purchases.

(c) The increases in land and buildings were from purchases but were partly funded by an increase in the mortgage with the bank.

(d) Share capital was issued during the year for cash.

Required

A. Prepare the statement of cash flows for Emporium Ltd for the year ended 30 June 2017, using the direct method.

B. Prepare the note reconciling cash flows from operating activities to profit.

C. Prepare a note to disclose non-cash financing and investing activities.

Problem 18.7 STATEMENT OF CASH FLOWS AND GST

LO 4, 5, 6

Pippa Highton set up a small business from her home by contributing $8000 cash to the business. The business is registered for GST. For the year ended 30 June 2018, the following transactions occurred.

1. Pippa contributed $8000 cash to the business.

2. Inventory was purchased on credit for $3000 plus GST of 10%. Pippa decided to adopt the perpetual inventory system.

3. Sales revenue of $4500 was earned, plus GST, for the sale of inventory on credit. Cost of sales was $3000.

4. Inventory was acquired for $2800 plus GST on credit.

5. Credit sales for $3000 plus GST were recorded, the cost of sales being $2100.

6. $ 3200 cash was received from accounts receivable.

7. $ 10 000 was borrowed from a bank under a long-term loan.

8. Equipment was purchased for $6000 plus GST, using the money borrowed.

9. GST owing was paid to the ATO.

10. Wages of $800 were paid to a part-time assistant.

11. $ 3300 cash was paid on accounts payable.

12. Inventory costing $2500 plus GST was purchased on credit.

13. Credit sales of $3000 plus GST were made, the cost of sales being $1500. The terms of the sale were 2/10, n/30.

14. The customer in (13) paid for the goods within the discount period.

Required

A. Prepare journal entries (in general journal form) for the business of Pippa Highton.

B. Prepare the income statement and statement of financial position of the business after all transactions have been recorded.
C. Prepare the statement of cash flows under the direct method for the business using the analysis of cash records.
D. Prepare the statement of cash flows under the direct method for the business by analysing financial statements.
E. Prepare a note reconciling the cash flows from operating activities to profit.

Problem 18.8 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 6, 8**

The comparative statements of financial position of Laguna Ltd as at 30 June 2016 and 2017, the statement of profit or loss and other comprehensive income and the statement of changes in equity for the year ended 30 June 2017 are shown on pages 814–15.

Additional information

(a) Other expenses include $27 000 depreciation expense on plant and insurance expense of $4000.
(b) All sales and purchases of inventory are on credit.
(c) Plant which had cost $30 000 and had a carrying amount of $17 000 was sold for $26 000 cash.
(d) Ignore taxes.

Required

A. Prepare the statement of cash flows for Laguna Ltd for the year ended 30 June 2017 using the direct method.
B. Prepare the note reconciling cash flows from operating activities to profit.

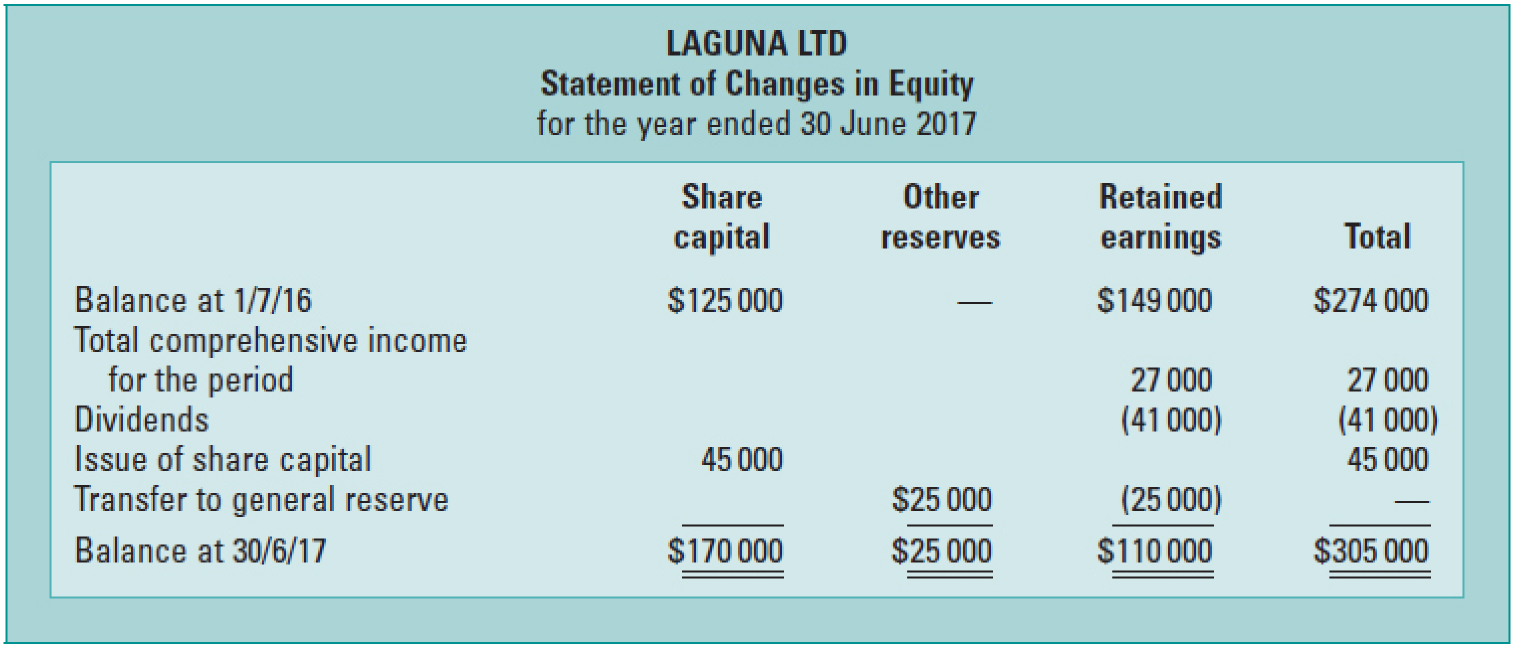
LAGUNA LTD
Comparative Statements of Financial Position
as at 30 June

	2016	2017
ASSETS		
Cash at bank	$ 6 500	$ 23 000
Accounts receivable	35 000	30 000
Lease income receivable	2 500	3 500
Inventory	66 000	82 000
Prepaid insurance	3 500	2 500
Property	90 000	40 000
Plant	300 000	360 000
Accumulated depreciation – plant	(67 000)	(81 000)
	$ 436 500	$ 460 000
LIABILITIES AND EQUITY		
Accounts payable	$ 32 000	$ 20 000
Interest payable	6 000	5 000
Other expenses payable	4 500	5 000
Mortgage payable	120 000	125 000
Share capital	125 000	170 000
General reserve	—	25 000
Retained earnings	149 000	110 000

	$ 436 500	$ 460 000

LAGUNA LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2017

Sales		$ 420 000
Less: Cost of sales		281 000
GROSS PROFIT		139 000
Add: Other income:		
Lease income	$ 7 500	
Gain on the sale of plant	9 000	16 500
		155 500
Less: Expenses:		
Interest expense	11 500	
Loss on the sale of property	10 000	
Other expenses	107 000	128 500
PROFIT		$ 27 000



LAGUNA LTD
Statement of Changes in Equity
for the year ended 30 June 2017

	Share capital	Other reserves	Retained earnings	Total
Balance at 1/7/16	$125 000	—	$149 000	$274 000
Total comprehensive income for the period			27 000	27 000
Dividends			(41 000)	(41 000)
Issue of share capital	45 000			45 000
Transfer to general reserve		$25 000	(25 000)	—
Balance at 30/6/17	$170 000	$25 000	$110 000	$305 000

Problem 18.9 STATEMENT OF CASH FLOWS, DIRECT AND INDIRECT METHODS **LO 8**

Comparative information as at 30 June 2017 and 30 June 2018 for Pretentious Ltd is as follows:

PRETENTIOUS LTD
Comparative Statements of Financial Position
as at 30 June

	2017	2018
ASSETS		
Cash at bank	$ 124 000	$ 86 000
Accounts receivable	152 000	169 000
Inventory	248 000	227 000
Land	125 000	50 000
Buildings	275 000	530 000
Accumulated depreciation – buildings	(170 000)	(200 000)
Plant and equipment	80 000	80 000
Accumulated depreciation – plant and equipment	(10 000)	(20 000)
	$ 824 000	$ 922 000
LIABILITIES AND EQUITY		
Accounts payable	$ 121 000	$ 134 000
Interest payable	1 500	500
Other expenses payable	17 500	6 000
Mortgage loan payable	90 000	132 500
Share capital	250 000	250 000
Retained earnings	344 000	399 000
	$ 824 000	$ 922 000

Additional information

(a) Gross profit for the year ended 30 June 2018 was $321 000, and consisted of:

Sales	$ 887 000
Cost of sales	566 000.

(b) Purchases of inventory for the year were $545 000.

(c) All purchases and sales of inventories were on credit.

(d) Profit for the year ended 30 June 2018 was $62 500, after deducting expenses of $258 500 from the gross profit figure.

(e) Expenses of $258 500 include depreciation on buildings, and on plant and equipment, a loss on sale of land, and $10 000 in interest expense.

(f) During the year ended 30 June 2018, cash dividends were paid.

(g) Building extensions were paid for during the year, and a block of land, costing $75 000, was sold for $62 500 cash.

(h) No plant was purchased or sold during the year.

Required

A. Prepare the statement of cash flows for Pretentious Ltd for the year ended 30 June 2018 using the direct method.
B. Show how cash flows from operating activities in the statement would be presented under the indirect method.

Problem 18.10 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 8**

The financial statements for Moon Ltd are shown below.

Additional information

(a) Office furniture that had originally cost $22 000 and had accumulated depreciation of $4000 was sold during the year for $19 000 cash.

(b) Plant and machinery costing $100 000 was paid for by the issue of 100 000 shares at a price of $1 each.

(c) The company pays tax in one instalment. Income tax expense as reported ($54 860) consists of the tax expense for the year ($80 000) less an overprovision for tax from the previous year ($25 140).

(d) The bank overdraft facility is considered part of the day-to-day cash management operations.

Required

Prepare a statement of cash flows in accordance with IAS 7/AASB 107 using the direct method. Also show any notes to the statement that are necessary.

MOON LTD
Comparative Trial Balance
as at 30 June

	2017		2018	
	Debit	Credit	Debit	Credit
Accounts payable		$ 96 640		$ 86 160
Bills payable (trade)		28 420		32 160
Bank overdraft		27 800		168 640
Current tax liability		60 000		80 000
Share capital		600 000		900 000
General reserve		100 000		150 000
Retained earnings		87 640		109 420
Petty cash	$ 500		$ 500	
Accounts receivable	115 620		208 640	
Allowance for doubtful debts		10 000		20 000
Bills receivable (trade)	15 120		10 860	
Inventory	365 160		605 780	
Plant and machinery	498 000		784 000	
Accumulated depreciation – plant and machinery		54 900		111 400
Furniture and equipment	100 000		78 000	
Accumulated depreciation – furniture and equipment		29 000		30 000
	$1 094 400	$1 094 400	$1 687 780	$1 687 780

MOON LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2018

INCOME	
Sales revenue	$ 2 000 000

Gain on sale of furniture		1 000
		2 001 000
EXPENSES		
Cost of sales	$ 700 000	
Depreciation expense	61 500	
Bad debts expense	34 000	
Other expenses	998 860	1 794 360
Profit before income tax		206 640
Income tax expense		54 860
PROFIT		$ 151 780

MOON LTD
Statement of Changes in Equity
for the year ended 30 June 2018

	Share capital	Other reserves	Retained earnings	Total
Balance at 1/7/17	$600 000	$100 000	$ 87 640	$ 787 640
Total comprehensive income for the period			151 780	151 780
Dividends paid			(80 000)	(80 000)
Issue of share capital	300 000			300 000
Transfer to reserve		50 000	(50 000)	0
Balance at 30/6/18	$900 000	$150 000	$109 420	$1 159 420

Problem 18.11 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 6, 8**

Comparative statements of financial position for Gold Ltd on 30 June 2017 and 2018 are presented overleaf.

Examination of the company's statement of profit or loss and other comprehensive income and general ledger accounts disclosed the following.

1. Profit (after tax) for the year ending 30 June 2018 was $80 000.
2. Depreciation expense was recorded during the year on buildings, $13 800, and on equipment, $22 900.
3. An extension was added to the building at a cost of $300 000 cash.
4. Long-term investments with a cost of $90 000 were sold for $125 000.
5. Vacant land next to the company's factory was purchased for $129 000 with payment consisting of $39 000 cash and a loan payable for $90 000 due on 30 June 2021.
6. Debentures of $100 000 were issued for cash at nominal value.
7. 30 000 shares were issued at $3.80 per share.
8. Equipment was purchased for cash.
9. Net sales for the period were $875 600; cost of sales amounted to $525 300; other expenses (other than depreciation, carrying amount of investments sold, interest, and bad debts written off, $3500) amounted to $149 400.
10. Income tax paid during the year amounted to $73 700, and interest paid on liabilities amounted to $40 000.

GOLD LTD
Comparative Statements of Financial Position
as at 30 June

	2018	2017
CURRENT ASSETS		
Cash at bank	$ —	$ 74 600
Accounts receivable	127 200	111 300
Inventory	275 000	221 200
Prepaid expenses	22 800	23 000
	425 000	430 100
NON-CURRENT ASSETS		
Buildings	639 000	339 000
Accumulated depreciation – buildings	(111 400)	(97 600)
Equipment	361 200	331 200
Accumulated depreciation – equipment	(89 900)	(67 000)
Land	168 000	39 000
	966 900	544 600
Long-term investments	70 000	160 000
	$ 1 461 900	$ 1 134 700
CURRENT LIABILITIES		
Bank overdraft	$ 16 700	$ —
Bills payable (trade)	45 000	50 000
Accounts payable	170 000	168 000
Accrued expenses	10 500	14 000
Current tax liability	26 000	24 000
	268 200	256 000
NON-CURRENT LIABILITIES		
Loan payable	240 000	150 000
Debentures due 1/9/23	300 000	200 000
	540 000	350 000
	$ 808 200	$ 606 000
EQUITY		
Share capital	$ 502 100	$ 388 100
Retained earnings	151 600	140 600
	$ 653 700	$ 528 700

Required

A. Prepare a statement of cash flows for the year ended 30 June 2018 using the direct method, and assuming that bank overdraft is part of the entity’s cash management activities.
B. Prepare any notes required to be attached to the statement.

Problem 18.12 STATEMENT OF CASH FLOWS FOR A COMPANY **LO 8**

Tulloch Ltd's comparative statements of financial position and statement of profit or loss and other comprehensive income for the year ended 30 June 2018 are shown on pages 819–20.

Additional information

(a) New equipment was purchased at a cost of $33 700, paid in cash.
(b) Equipment that cost $21 100 and had a carrying amount of $10 000 was sold for cash.
(c) Additions to buildings were partly funded by a mortgage loan.
(d) Debentures were issued at nominal value ($50) for cash.
(e) Share investments with a carrying amount of $16 100 were sold for cash at a profit.
(f) The company was given permission to pay income tax in one instalment.
(g) No interim dividends were paid during the year.

Required

A. Prepare the statement of cash flows for Tulloch Ltd for the year ended 30 June 2018 in accordance with AASB 107, using the classifications shown in Illustrative Example A to the standard.
B. Prepare the note showing the reconciliation of net cash from operating activities to profit for the year ended 30 June 2018.

TULLOCH LTD
Comparative Statements of Financial Position
as at 30 June

	2018	2017
ASSETS		
Cash at bank	$ 35 000	$ 21 000
Bank bills	5 000	4 300
Deposits at call	3 200	2 500
Accounts receivable	24 650	18 900
Allowance for doubtful debts	(1 250)	(950)
Inventory	47 100	48 300
Prepaid expenses	5 400	2 100
Interest receivable	800	900
Share investments	17 800	33 900
Land	35 000	35 000
Buildings	180 000	120 000
Accum. depreciation – buildings	(52 200)	(47 250)
Equipment	90 000	77 400
Accum. depreciation – equipment	(28 950)	(34 800)
Patents (indefinite life)	7 200	6 100
	$ 368 750	$ 287 400
LIABILITIES AND EQUITY		
Accounts payable	$ 49 260	$ 46 280
Trade bills payable	1 000	700
Expenses payable	4 890	4 170
Interest payable	2 000	1 500
Current tax liability	7 200	7 500

Final dividend payable	17 400	16 000
Mortgage loan	20 000	—
Debentures (10%)	96 500	85 000
Share capital (ordinary shares, issued at $1)	147 720	92 450
Retained earnings	22 780	33 800
	$ 368 750	$ 287 400

TULLOCH LTD
Statement of Profit or Loss and Other Comprehensive Income
for year ended 30 June 2018

INCOME		
Sales		$ 693 000
Interest income		2 180
Dividend income		3 600
Discount received		1 050
Gain on sale of share investments		11 300
		711 130
EXPENSES		
Cost of sales	$ 466 000	
Bad debts expense	1 400	
Loss on sale of equipment	800	
Depreciation – equipment	5 250	
Depreciation – buildings	4 950	
Discount allowed	475	
Interest expense	9 200	
Other expenses	209 475	697 550
Profit before income tax		13 580
Income tax expense		7 200
PROFIT		$ 6 380

Problem 18.13 CASH FLOW FROM OPERATING ACTIVITIES AND INCOME TAX ENTRIES LO 8

The information opposite relates to Cascade Ltd.

Additional information in relation to the year ended 30 June 2018

(a) A loan payable of $45 000 was satisfied by conversion into 45 000 ordinary shares, valued at $1 each.

(b) The sold equipment cost $41 000 and had a carrying value of $34 000 when sold. Land with a carrying value of $25 000 was sold during the year for $25 000.

(c) The company pays tax in four instalments on the normal due dates throughout the year. The first three instalments paid in cash were for $15 000, $12 750 and $16 000 respectively.

Required

A. Prepare ***only*** the cash flows from operating activities section of Cascade Ltd’s statement of cash flows for the year ended 30 June 2018 in accordance with IAS 7/AASB 107, using the direct method.
B. Reconstruct all journal entries in relation to income tax for the year ended 30 June 2018.

CASCADE LTD
Comparative Statements of Financial Position
as at 30 June

	2018	2017
ASSETS		
Cash at bank	$ 52 700	$ 57 000
Accounts receivable	73 500	32 000
Allowance for doubtful debts	(7 000)	(6 000)
Inventory	54 000	10 000
Prepaid insurance	5 000	7 000
Land (at cost)	45 000	70 000
Buildings (at cost)	200 000	100 000
Accumulated depreciation – buildings	(21 000)	(11 000)
Equipment (at cost)	193 000	68 000
Accumulated depreciation – equipment	(28 000)	(10 000)
	$ 567 200	$ 317 000
LIABILITIES AND EQUITY		
Accounts payable	$ 75 200	$ 56 000
Interest payable	2 000	—
Other expenses payable	10 000	—
Current tax liability	11 800	15 000
Final dividend payable	19 800	4 800
Loan payable	75 000	130 000
Share capital (ordinary shares, issued at $1, fully paid)	220 000	60 000
General reserve	45 000	20 000
Retained earnings	108 400	31 200
	$ 567 200	$ 317 000

CASCADE LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2018

INCOME		
Sales		$ 890 000
EXPENSES		
Cost of sales	$ 465 000	
Bad debts expense	10 000	
Loss on sale of equipment	2 000	

Depreciation	33 000	
Insurance expense	2 000	
Interest expense	12 000	
Salaries and wages	134 000	
Other expenses	42 000	700 000
Profit before income tax		190 000
Income tax expense		65 000
PROFIT		$ 125 000

Problem 18.14 STATEMENT OF CASH FLOWS AND ANALYSIS **LO 6, 8**

The financial statements of Triathlon Ltd are provided below and opposite.

TRIATHLON LTD
Comparative Statements of Financial Position
as at 30 June

	2017	2016	Changes
CURRENT ASSETS			
Bank bills (due 31 July)	$ 15 000	$ —	$ 15 000
Deposits at call	83 000	41 000	42 000
Accounts receivable	262 000	208 000	54 000
Allowance for doubtful debts	(14 500)	(11 500)	(3 000)
Trade bills receivable	15 000	12 000	3 000
Inventory	503 000	477 600	25 400
Prepaid expenses	40 000	45 000	(5 000)
	903 500	772 100	131 400
NON-CURRENT ASSETS			
Shares in Bike Ltd	225 000	375 000	(150 000)
Buildings (cost)	1 950 000	1 350 000	600 000
Accumulated depreciation – buildings	(505 000)	(469 000)	(36 000)
Equipment (cost)	890 500	760 500	130 000
Accumulated depreciation – equipment	(289 500)	(348 000)	58 500
Land (cost)	500 000	500 000	0
	2 771 000	2 168 500	602 500
	3 674 500	2 940 600	733 900
CURRENT LIABILITIES			
Bank overdraft	63 000	107 000	(44 000)
Accounts payable	426 500	448 000	(21 500)
Trade bills payable	7 000	9 600	(2 600)
Expenses payable	33 750	29 500	4 250
Interest payable	25 000	22 500	2 500
Dividend payable	180 000	195 000	(15 000)
Current tax liability	77 300	64 500	12 800
	812 550	876 100	(63 550)
NON-CURRENT LIABILITIES			
Mortgage loan	180 000	100 000	80 000
Debentures	800 000	600 000	200 000
	980 000	700 000	280 000
	1 792 550	1 576 100	216 450
NET ASSETS	$1 881 950	$1 364 500	$ 517 450
EQUITY			
Share capital	$1 129 500	$ 889 500	$ 240 000
Retained earnings	752 450	475 000	277 450
	$1 881 950	$1 364 500	$ 517 450

TRIATHLON LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2017

INCOME		
Sales revenue (net)	$ 6 580 000	
Dividends received	43 000	
Proceeds from sale of share investment	245 000	
Proceeds from sale of equipment	94 000	
Discount received	12 750	
Total income		$ 6 974 750
EXPENSES		
Cost of sales	3 475 000	
Carrying amount of shares sold	150 000	
Carrying amount of equipment sold	15 000	
Depreciation expense – equipment	46 500	
Depreciation expense – buildings	36 000	
Interest expense	73 000	
Bad debts expense	14 650	
Discount allowed	5 250	
Other expenses	2 411 100	6 226 500
Profit before income tax		748 250
Income tax expense		290 800
PROFIT		$ 457 450

TRIATHLON LTD
Statement of Changes in Equity
for the year ended 30 June 2017

	Share capital	Other reserves	Retained earnings	Total
Balance at 1/7/16	$ 889 500		$ 475 000	$1 364 500
Total comprehensive income for the period			457 450	457 450
Dividends declared			(180 000)	(180 000)
Issue of share capital	240 000			240 000
Balance at 30/6/17	$1 129 500		$ 752 450	$1 881 950

Additional information

During the year ended 30 June 2017, Triathlon Ltd entered into the following transactions relevant to the preparation of the statement of cash flows.

(a) Building additions were completed at a cost of $600 000 cash.

(b) New equipment was purchased at a cost of $250 000; $150 000 was paid in cash and the balance covered by arranging a long-term mortgage loan with Running Finance Ltd.

(c) Equipment with a cost of $120 000 and accumulated depreciation of $105 000 was sold for $94 000 cash.

(d) Shares in Bike Ltd were sold for $245 000 cash.

(e) Debentures (9%) were issued at nominal value for cash, $200 000.

(f) An additional 40 000 ordinary shares were issued for cash for $6 per share.

(g) A cash dividend of $195 000 was paid during the year.

(h) $20 000 of mortgage due 30 June 2017 was repaid during the year.

(i) The company pays tax in four instalments, and the first three instalments have been paid in relation to the current year.

(j) The bank overdraft facility is used as part of the company's everyday cash management facilities.

Required

A. Prepare a statement of cash flows in accordance with accounting standards using the direct method.
B. Prepare notes to the statement to (1) reconcile cash at end shown in the statement of cash flows to the figures in the statement of financial position and (2) reconcile the net cash from operating activities to profit.
C. Comment on the company's cash flows during the year ended 30 June 2017 and cash position at 30 June 2017.
D. Discuss whether accounting standards should allow the option to prepare the statement of cash flows using the direct or indirect method.

Problem 18.15 STATEMENT OF CASH FLOWS AND REPORT TO MANAGEMENT LO 6, 8

The management of Locale Ltd is worried because the bank overdraft has increased by a substantial amount over the financial year ended 30 June 2018 despite a large profit and the introduction of additional capital. The internal comparative statements of financial position at 30 June 2017 and 2018 were as follows:

LOCALE LTD
Comparative Statements of Financial Position
as at 30 June

	2017	2018
EQUITY		
Share capital	$ 450 000	$ 577 500
Revaluation surplus	—	22 500
General reserve	75 000	127 500
Retained earnings	73 500	117 750
	$ 598 500	$ 845 250
NON-CURRENT ASSETS		
Land	$ 15 000	$ 37 500
Buildings	90 000	90 000
Accumulated depreciation – buildings	(45 000)	(52 500)
Plant and equipment	310 500	450 000
Accumulated depreciation – plant and equipment	(40 500)	(83 250)
	330 000	441 750

CURRENT ASSETS		
Petty cash	300	550
Accounts receivable	161 250	300 000
Allowance for doubtful debts	(15 000)	(30 000)
Inventory	273 750	458 250
	420 300	728 800
LESS: CURRENT LIABILITIES		
Accounts payable	54 300	44 500
Current tax liability	9 000	22 050
Bank overdraft	88 500	258 750
	151 800	325 300
Working capital	268 500	403 500
TOTAL NET ASSETS	$ 598 500	$ 845 250

The statement of profit or loss and other comprehensive income for the year ended 30 June 2018 for Locale Ltd, prepared for management purposes, is shown opposite.

LOCALE LTD
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 30 June 2018

INCOME		
Sales revenue (net)		$ 825 000
Cost of sales	$ 415 500	
Less: Discount received	(1 125)	414 375
GROSS PROFIT		410 625
Proceeds from sale of plant and equipment		3 750
		414 375
EXPENSES		
Salaries and wages expense	$ 90 375	
Depreciation on buildings	7 500	
Depreciation on plant and equipment	57 750	
Electricity expense	4 500	
Bad debts expense	45 000	205 125
Profit before tax		209 250
Income tax expense	75 000	
Underprovision for income tax	3 750	78 750
PROFIT FOR THE PERIOD		130 500
Other comprehensive income:		
Gain on revaluation of land		22 500
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		$ 153 000

Additional information

- **(a)** The land was revalued upwards during the year by $22 500.
- **(b)** During the year, a dividend of $33 750 had been paid.
- **(c)** Plant and equipment which had originally cost $82 500 and had been depreciated by $15 000 was sold during the year for $71 250.
- **(d)** The company pays income tax in four instalments and the first three instalments have been paid. For the year ended 30 June 2017, the ATO issued an amended assessment of $12 750 resulting in an underprovision of $3750 being recorded in 2018.

Required

A. Prepare a statement of cash flows as per current accounting standards using the direct method.
B. Prepare a note reconciling cash flows from operating activities to profit.
C. Prepare a brief report to management explaining the flow of cash and cash equivalents.

DECISION ANALYSIS

Several years ago, an article entitled 'From accounting to "forecounting"' (Cormier & Magnan 2005) claimed that accounting would rely increasingly on forecasting future cash flow. Even though this article was very insightful, many questioned its premise. However, after close observation of the standards developed by the International Accounting Standards Board (IASB) in recent years, particularly International Financial Reporting Standards (IFRSs) related to financial instruments and revenue recognition, some firmly believe that accounting is transforming to 'forecounting'.

Required

A. The definitions of assets and liabilities in the ***Conceptual Framework*** refer to generating future cash inflows (assets) and cash outflows (liabilities). Explain how a statement of cash flows is useful in projecting cash flows.
B. Transforming accounting to forecounting calls for more integration of accountancy with other disciplines. Discuss the disciplines that are useful in developing analytical skills to forecast future cash flow.

COMMUNICATION AND LEADERSHIP

Reporting on cash flows

In groups of three, obtain the latest statement of cash flows for a company (other than JB Hi-Fi Limited). Financial reports are available from company websites, and usually from internet sites subscribed to by university libraries.

Required

For the statement of cash flows you have obtained, prepare a report to an investor of at least one page in length outlining the strengths and weaknesses of the company's cash flows from operating, investing and financing activities.

ETHICS AND GOVERNANCE

Two popular theories on why corporations fall the ethics test should be debunked, Jeremy Moon says. The explanation in some quarters, that many senior business leaders are 'corporate psychopaths', overstates the problem; while former US president George W. Bush's argument in the wake of the Enron collapse, that there are just a few bad apples, is too lenient. Moon draws on his recent research examining the global financial crisis to suggest four reasons for why corporations behave badly. First, there is poor alignment between the way markets function and the ethical expectations of the public. While consumers believe companies should behave appropriately, they also demand cheap goods. Moon cites the April collapse of a shoddy Bangladeshi clothing factory — in which more than 1000 people died while producing garments for Western retailers — as a symbol of the conundrum. 'Part of the ethics failure is that consumers want cheap clothes, while companies which sell cheap [goods] tend to do very well,' Moon says. Second, some leaders fail to step up to the mark ethically. 'It's not a question of bad apples — it's about ethical leadership.'

Third, Moon says there has been a failure of 'professionalisation' on two fronts. Employee handbooks on ethics are left sitting in drawers and professional development programs often ignore the topic, while the appointment of well-meaning corporate social responsibility (CSR) managers has not always translated into better ethical outcomes. Moon says they need to be brought into the business rather than being placed 'in the room at the end of the corridor'. Fourth, regulatory regimes have not always delivered ethical outcomes. For example, companies have been able to legally but perversely report taxes in a foreign country that is used simply as a place to store money for tax advantages. Moon concedes regulation of organisations in a global tax environment is complicated. 'But regulations need to be more effective,' he says. On a positive note, Moon believes CSR is increasingly seen as an investment, not just an expenditure. He agrees business schools have an important role to play in developing the next generation of ethical leaders, but notes that young graduates can be quickly 'resocialised' when they experience the reality of the workforce. 'It's hard to have an enduring effect, but it's a challenge which we shouldn't shirk,' he says.

Source: Moon, J 2013, 'Why don't corporations behave ethically?', ***InTheBlack***, 3 October.

Required

A. Describe two theories explaining why corporations fail the ethics test.
B. Identify Moon's four reasons why corporations behave badly.
C. The article provides examples to illustrate each of the four reasons. Provide your own examples to illustrate each of the reasons.

FINANCIAL ANALYSIS

Refer to the latest financial report of JB Hi-Fi Limited on its website, www.jbhifi.com.au, and answer the questions below using the consolidated statement of profit or loss and other comprehensive income (income statement), statement of financial position (balance sheet), statement of changes in equity, statement of cash flows, and notes to the consolidated financial statements.

1. For the purposes of the statement of cash flows, identify how cash is defined.
2. Identify the most significant source or use of:
  (a) cash flows from operating activities
  (b) cash flows from investing activities
  (c) cash flows from financing activities.
3. Identify and explain any non-cash financing or investing transactions that occurred during the last financial year.
4. Discuss if JB Hi-Fi Limited's cash position at the end of the financial year is better or worse than the previous year.
5. How does JB Hi-Fi Limited classify dividends and interest received and paid in the statement of cash flows?

CHAPTER 19

Analysis and interpretation of financial statements

Concepts for review

Before studying this chapter, you should understand or, if necessary, revise:

- the different types of users of general purpose financial statements (pp. 10–11)
- the distinction between current and non-current assets and liabilities (pp. 151–4)
- the content of a company's financial statements (pp. 723–8)
- the preparation of a statement of cash flows for a sole trader and a company (pp. 758–70, 784–93).

Learning Objectives

After studying this chapter, you should be able to:

1 obtain information about entities for the purpose of analysing their performance and financial position (pp. 830–1)
2 identify the need for using various analytical techniques to assess an entity's performance and financial position (pp. 831–3)
3 prepare horizontal, trend and vertical analyses of an entity's financial statements and be able to interpret these analyses (pp. 834–5)
4 conduct ratio analysis to assess an entity's profitability (pp. 835–40), liquidity (pp. 840–3), and financial stability (pp. 843–5)
5 explain the relationships among ratios to assess the interaction between profitability, liquidity and financial stability (pp. 845–6)
6 analyse and interpret the ratio information provided by a statement of cash flows (pp. 846–51)
7 discuss the limitations of traditional financial statement analysis (pp. 851–2)

8 describe the impact of capital markets research on the role of financial statement analysis (pp. 852–4).

Insight comes from 30 minutes clocking value via a study of company reports

Warren Buffett has famously invited anyone wanting to sell him a company to make a proposal — and says he'll customarily give an indication as to possible interest within five minutes.

What is the important information in financial statements for an investor to initially screen?

Novice investors are sometimes surprised when a company announces a profit increase of 20 per cent and the share price falls. It's because market expectations matter. If investors were expecting a 25 per cent rise, a 20 per cent increase would be disappointing. So dig up the 'consensus' earnings per share number beforehand. Online and full-service brokers usually provide this information, as do sites such as Yahoo! Finance. But watch out, because the company might be reporting its earnings on a different basis to the brokers' forecasts.

You might also spend a few minutes thinking about what else to expect in the financial statements. For example, shareholders in carsales.com will expect to see cash paid out for stakes in iCar Asia and Webmotors Brazil in the 2013 financial year. You should also be aware of how companies with international operations report the effect of the falling Australian dollar in 2013. Most chose to report 'constant currency' results when the dollar was a headwind. Now the dollar is a tailwind, you should expect them to report in the same terms. Be aware that the dollar's decline will inflate revenue and profit growth for companies with overseas businesses in 2013.

You're now nearly five minutes in and already prepared for potential surprises. So what happens when the company reports its results to the ASX? You'll probably be tempted to head straight to the management presentation. It’s colourful and easier to understand than the ‘preliminary final report’ (the official title of the results document). Resist temptation and turn to the three main financial statements in the preliminary final report, each of which will account for another three minutes.

Cash flow first

The cash flow statement should be your first stop. With a little practice, it’s simple to understand. What’s more, it’s the statement that’s hardest for management to manipulate. The cash flow statement helps you work out free cash flow. This is generally defined as operating cash flow (check to see that this is stated after interest and tax payments and deduct them if not) less investment expenditure (the main part of which is usually described as ‘payments for property, plant and equipment’).This tells you how much cash is left over for shareholders after the company has taken care of its business needs. The cash flow statement also tells you how much cash has been paid out as dividends, how much has been allocated to debt repayment, and how much has been raised from the issue of new shares.

Turn to the balance sheet next. Here’s where you calculate net debt (short- and long-term borrowings less cash), the net debt-to-equity ratio (net debt divided by shareholders’ equity) and other measures of financial health.

Have these ratios changed, and why? What has happened to intangibles, and why? Is inventory piling up? Running your eye down the balance sheet, line by line, is a useful exercise.

Now to the income statement. It can be a surprisingly inscrutable financial statement, particularly when ‘significant items’ — usually negative ones such as write-downs — muddy the result. Still, you should eyeball revenue and costs line by line, then calculate gross margins and operating margins (also known as earnings before interest and tax, or EBIT, margins). If revenue is flat while costs are rising — which means margins are declining — you’ll want to investigate why.

Spin class

The discipline of considering the three main financial statements first is important because your initial review will be unsullied by management commentary (or should that be ‘spin’?). But the financial statements usually raise more questions than they answer. So your next 12 minutes is all about investigating the issues you’ve identified. Review the management presentation, notes to the accounts and any other accompanying commentary. If you noticed something unusual in the financial statements, such as a significant drop in operating cash flow, management should explain it in the supporting documents.

Your final few minutes should be spent on the company’s outlook statement (if provided). Is management confident about the year ahead? Some management teams underpromise and overdeliver; others are too optimistic.

Here’s where you should spend some time thinking about the company’s future. After all, it’s the company’s future cash flows that determine its valuation. A sober assessment of a business’s prospects — including an analysis of industry headwinds and tailwinds — is vital.

Before you know it, your 30 minutes is up. Your calculator and your brain have officially had a good workout.

Just spare a thought for the professional analysts, who have to accomplish these mental gymnastics several times a day during reporting season (they love it, of course).

Source: Excerpts from Bell, N 2013, ‘Insight comes from 30 minutes clocking value via a study of company reports’, ***The Age***, 14 August, p. 6.

Chapter preview

The general purpose financial reports issued by entities, in both the private and the public sectors, are used by various parties to evaluate, among other things, the entity’s financial performance and financial position. In the previous chapter, we demonstrated how the statement of cash flows could be used to supplement the traditional financial statements in analysing the operating, financing and investing activities of an entity.

In this chapter we will focus on the basic techniques commonly used to analyse an entity's financial statements so that interested parties can make economic decisions, e.g. to buy or sell shares, to lend money to the entity. General purpose financial reports are emphasised because they are the main source of financial data for most outside users.

The scene setter highlights the importance of understanding the statement of profit or loss and other comprehensive income (income statement), statement of financial position and statement of cash flows in financial analysis. The techniques of financial analysis are covered in this chapter.

19.1 Sources of financial information

LO 1 **Obtain information about entities for the purpose of analysing their performance and financial position.**

An entity's financial statements, with their schedules and explanatory notes, are the main means by which management communicates information about the entity to users of general purpose financial reports. In addition to data published by an entity, a wealth of information is available from other sources. Financial advisory services publish financial data for most companies, and details of company reports are generally available in most public libraries and libraries of universities. Much information is also available on the Internet, e.g. see the website of the Australian Securities Exchange (ASX), www.asx.com.au, and individual company websites.

It is also useful to compare data of the entity under study with that of similar or competing entities. Industry data are available from Dun & Bradstreet, and from databases such as the ASX. Individual company and industry analyses are also available from stockbroking firms. A wealth of information is also available in various economic and financial newspapers and journals, and from online databases available in most libraries.

LEARNING CHECK

☐ Much financial information about an entity can be obtained from its financial statements. Additional information can be obtained from the Australian Securities Exchange website, the websites of public companies and many other online resources.

19.2 The need for analytical techniques

LO 2 **Identify the need for using various analytical techniques to assess an entity's performance and financial position.**

Information contained in the various sources of financial data is expressed mainly in monetary terms. Although dollar amounts are necessary for many purposes, most individual items reported in financial statements are generally of limited usefulness when considered by themselves. Significant relationships may not be revealed in a review of absolute dollar amounts because they provide no indication of whether a particular item is good or bad for a given entity. For example, knowing that a business reports profits of $5 000 000 for the current year is of limited use unless the amount is compared with other information, such as: (1) last year's profits, (2) the current year's sales, (3) the profits of other businesses in the same industry, (4) the asset base available to generate the profit, or (5) some predetermined standard established by the statement user.

To simplify the identification of significant changes and relationships, the dollar amounts reported in financial statements are frequently converted into percentages of some base item, referred to as horizontal analysis and vertical percentage analysis. In other cases, the relationship between two items is expressed as a ratio.

Percentage analysis and ***ratio analysis*** have been developed to provide an efficient means by which a decision maker can identify important relationships between items in the same statements and trends in financial data. Percentages and ratios are calculated in order to reduce the financial data to a more understandable basis for the evaluation of the financial condition and past financial performance of the entity. The information is used mainly to forecast an entity’s ability to pay its debts when due and to operate at a satisfactory level of profitability. Because the special interests and objectives of users differ and because the analytical techniques are almost limitless, the choice of proper tools must vary.

Some users of financial data are concerned with evaluating the entity’s ability to produce enough cash to pay its current liabilities and still have sufficient cash left to carry out its other activities. The ability of an entity to pay its short-term debts is its **liquidity** or **solvency**, and the focus of the investigation is generally on current assets and liabilities. Other users, such as debenture holders and shareholders, are concerned also with the financial stability of the entity, i.e. its ability to pay its long-term obligations. In a financial stability analysis, the statement user assesses the financial structure of the entity and its prospects for operating at a level adequate to provide sufficient cash for the payment of interest, dividends and debt principal.

Data for discussion of percentage and ratio analysis, and the statement of profit or loss and other comprehensive income, statement of financial position and statement of changes in equity for Cache Ltd during a 2-year period (2016–17) are presented in the first two columns of figures 19.1, 19.2 and 19.3 (pp. 832–3). To enable the calculations of ratios for two periods, a 30 June 2015 statement of financial position is also included in figure 19.1. Relevant information contained in the notes to the financial statements is included in figure 19.4 (p. 833). Note that, for the statement analysis of an individual entity to be useful, the relationships must be compared with other data or standards. (In the following discussion, rather than stating the need for comparison every time a particular analysis is performed, it will be assumed that this additional step is taken by the user.)

Figure 19.1 Comparative statements of financial position, horizontal change during the year, and common size statements

CACHE LTD
Comparative Statements of Financial Position

	Year ended 30 June			Horizontal change during the year 2016–17		Common size* statements	
	2017 ($000)	2016 ($000)	2015 ($000)	Dollar amount ($000)	Per cent	2017	2016
Current assets							
Cash and cash equivalents	$ 1 540	$ 1 480	$ 1 500	$ 60	4.1	10.3	11.7
Trade and other receivables	2 920	2 580	2 640	340	13.2	19.6	20.5
Inventories	4 020	3 540	3 720	480	13.6	27.1	28.1
Other current assets	200	200	200	—	—	1.3	1.6
Total current assets	8 680	7 800	8 060	880	11.3	58.3	61.9
Non-current assets							
Other financial assets	800	1 000	1 000	(200)	(20.0)	5.4	7.9
Property, plant and equipment	5 200	3 600	3 540	1 600	44.4	35.0	28.6
Other non-current assets	200	200	200	—	—	1.3	1.6
Total non-current assets	6 200	4 800	4 740	1 400	29.2	41.7	38.1
Total assets	14 880	12 600	12 800	2 280	18.1	100.0	100.0
Current liabilities							
Trade and other payables (Note 14)	3 404	3 056	3 670	348	11.4	22.9	24.3
Current tax payable	116	144	130	(28)	(1.4)	0.8	1.1
Total current liabilities	3 520	3 200	3 800	320	10.0	23.7	25.4
Non-current liabilities							
Long-term borrowings	3 800	3 400	3 600	400	11.8	25.5	27.0
Total non-current liabilities	3 800	3 400	3 600	400	11.8	25.5	27.0
Total liabilities	7 320	6 600	7 400	720	10.9	49.2	52.4
Net assets	$ 7 560	$ 6 000	$ 5 400	$1 560	26.0	50.8	47.6
Equity							
Share capital (Note 23)	$ 4 604	$ 3 800	$ 3 800	$ 804	21.2	30.9	30.2
Retained earnings	2 956	2 200	1 600	756	34.4	19.9	17.4
Total equity	$ 7 560	$ 6 000	$ 5 400	$1 560	26.0	50.8	47.6

*Calculations are explained on pages 834–6.

Figure 19.2 Comparative statements of profit and loss and other comprehensive income, horizontal change during the year, and common size statements

CACHE LTD
Comparative Statements of Profit and Loss and Other Comprehensive Income

	Year ended 30 June		Horizontal change during the year		Common size statements (per cent of revenue)	
	2017 ($000)	2016 ($000)	Dollar amount ($000)	Per cent	2017	2016
Revenue (Note 2)	$20 640	$19 164	$1 476	7.7	100.0	100.0
Cost of sales	15 438	13 950	1 488	10.7	74.8	72.8
Gross profit	5 202	5 214	(12)	(0.0)	25.2	27.2
Other expenses, excluding finance costs (Note 4)	3 294	2 900	394	13.6	15.9	15.1
Finance costs	504	460	44	9.6	2.4	2.4
Profit before income tax	1 404	1 854	(450)	(24.3)	6.8	9.7
Income tax expense	452	574	(122)	(21.3)	2.2	3.0
Profit	$ 952	$ 1 280	$ (328)	25.6	4.6	6.7
Other comprehensive income items	—	—	—	—	—	—
Comprehensive income and expenses for the period	$ 952	$ 1 280	$ (328)	25.6	4.6	6.7

Figure 19.3 Comparative statements of changes in equity, horizontal change during the year, and common size statements

CACHE LTD
Comparative Statements of Changes in Equity

	Year ended 30 June		Horizontal change during the year		Common size statements	
	2017 ($000)	2016 ($000)	Dollar amount ($000)	Per cent	2017	2016
Share capital (Note 23)						
Ordinary:						
Balance at start of period	$3 200	$3 200	—	—	69.5	84.2
Issue of share capital	804	—	$ 804	—	17.5	—
Balance at end of period	4 004	3 200	804	25.1	87.0	84.2
Preference:						
Balance at start of period	600	600	—	—	13.0	15.8
Balance at end of period	600	600	—	—	13.0	15.8
Total share capital	$4 604	$3 800	$ 804	21.2	100.0	100.0
Retained earnings						
Balance at start of period	$2 200	$1 600	$ 600	37.5	74.4	72.7
Total comprehensive income for the period	952	1 280	(328)	(25.6)	32.2	58.2
Dividend paid — ordinary	(136)	(620)	(484)	(78.1)	(4.6)	(28.2)
Dividend paid — preference	(60)	(60)	—	—	(2.0)	(2.7)
Balance at end of period	$2 956	$2 200	$ 756	34.4	100.0	100.0

Figure 19.4 Notes to the financial statements and additional information

Notes to the financial statements

		2017 ($000)	2016 ($000)	2015 ($000)
Note 2:	**Revenue**			
	Sales revenue (net)	$20 640	$19 164	
Note 4:	**Expenses**			
	Selling and distribution expenses	2 060	1 600	
	Administration expenses	1 134	1 240	
Note 14:	**Trade and other payables**			
	Current			
	Trade payables	3 320	3 000	$3 600
	Other	84	56	70
Note 23:	**No. of shares issued at end of year**			
	Ordinary shares	3 000 000	2 400 000	
	Preference shares	200 000	200 000	

Additional information

The Directors' Report disclosed that for the year 2017 the dividend paid to ordinary shareholders was $136 000, and the dividend paid to preference shareholders was $60 000.

LEARNING CHECK

- ☐ Most financial data in financial statements are expressed in dollars. This can be of limited usefulness in assessing an entity's performance, liquidity, solvency and financial stability, unless compared with other figures, e.g. past results, company average.
- ☐ Dollar amounts are converted to percentages to eliminate the effect of the size of the entity being analysed.
- ☐ Percentage and ratio analysis identifies important relationships within financial statements and between financial statements.

19.3 Percentage analysis

LO 3 **Prepare horizontal, trend and vertical analyses of an entity's financial statements and be able to interpret these analyses.**

Horizontal analysis

An analysis of the preceding year's financial statements is generally performed as a starting point for forecasting future performance. Most entities include in their annual report financial statements for the 2 most recent years (**comparative statements**), and selected summary data for 5 to 10 years. An analysis of the change from year to year in individual statement items is called **horizontal analysis**.

In horizontal analysis, the individual items or groups of items on comparative financial reports are generally first placed side by side as in the columns in figures 19.1, 19.2 and 19.3. Because it is difficult to compare absolute dollar amounts, the difference between the figures for 2 separate years is calculated in dollar amounts and percentage change. In calculating the increase or decrease in dollar amounts, the earlier statement is used as the base year. The percentage change is calculated by dividing the increase or decrease from the base year in dollars by the base-year amount. For example, from 2016 to 2017 the cash and cash equivalents of Cache Ltd increased by $60 000, from $1 480 000 to $1 540 000 (figure 19.1). The percentage change is 4.1%, calculated as follows:

$$\text{Percentage increase} = \frac{600\,000}{1\,480\,000} \times 100 = 4.1\%$$

A percentage change can be calculated only when a positive amount is reported in the base year; the amount of change cannot be stated as a percentage if the item in the base year is reported as a negative or a zero amount.

A review of the percentage increases or decreases reveals those items that showed the most significant change between the periods under study, and important and unusual changes will be investigated further by the analyst. The objectives of the investigation are to determine the cause of the change, to determine whether the change was favourable or unfavourable, and to assess whether any trends are expected to continue. In so doing, the analyst must consider changes in other related items.

For example, when reviewing the percentage changes in the statement of financial position items included in figure 19.1, attention is directed to the change in property, plant and equipment because of the size of the change ($1 600 000 or 44%). It appears that the entity is expanding its operations. Answers would be sought to such questions as: How is the investment being financed? Is expansion going to cause severe cash flow problems? Are sales markets adequate to support the additional output?

Sales revenue in figure 19.2 (see notes in figure 19.4) increased 7.7%, by itself a favourable trend. However, the increase in other expenses was 13.6%, and finance costs increased by 9.6%. From the notes to the statements it can be calculated that cost of sales increased by 10.7% $\left(\frac{\$15\,438 - \$13\,950}{\$13\,950} \times 100\right)$, and selling and distribution expenses increased by 28.8% $\left(\frac{\$2060 - \$1600}{\$1600} \times 100\right)$. During the period the entity was unable to maintain its gross profit margin percentage [(sales − cost of sales) ÷ sales], in spite of the increased sales effort. These items warrant further investigation by any user who is concerned with the profitability and long-term future of the entity.

Trend analysis

When financial data are available for 3 or more years, trend analysis is a technique commonly used by financial analysts to assess the entity's growth prospects. In this analysis, the earliest period is the base period, with all subsequent periods compared with the base. It is assumed that the base year selected is fairly typical of the entity's operations. For example, assume that sales revenue and profit were reported for the last 5 years as shown below.

	2014	2015	2016	2017	2018
Sales revenue	$1 500 000	$1 650 000	$1 720 000	$1 690 000	$1 710 000
Profit	250 000	265 000	280 000	270 000	290 000

It is clear that the dollar amounts of both sales revenue and profit are increasing. However, the relationship between the change in sales and profit can be more easily interpreted if the changes are

expressed in percentages (with the base year 2014 being 100%) by dividing the amount reported for each subsequent year by the base year amount, thus producing:

	2014	2015	2016	2017	2018
Sales revenue	100	110	115	113	114
Profit	100	106	112	108	116

Now it can be seen that the growth in profit and sales revenue varies. The growth in profit is higher (lower) than the growth in sales revenue in 2017 and 2018 (2015 and 2016). Obviously, the trend in other items should be investigated. The level of profit is affected not only by sales revenue, but also by expenses. It is possible that the entity's cost of sales is increasing faster than selling prices. Or the increase in sales revenue may be a result of granting more liberal credit terms that are resulting in larger bad debt expenses. The point is that other revenue and expense data must also be reviewed before drawing conclusions about the significance of one particular item. The overall objective is to evaluate various related trends and try to assess whether the trend can be expected to continue.

Although the previous example covered only two items in the financial statements, trend analysis should be carried out on all items in the statement of profit or loss and other comprehensive income, statement of financial position and statement of changes in equity for which figures for 3 or more years are available.

Vertical analysis

Horizontal analysis compares the proportional changes in a specific item from one period to the next; **vertical analysis** involves restating the dollar amount of each item reported on an individual financial statement as a percentage of a specific item on the same statement, referred to as the base amount. For example, on the statement of financial position, individual components are stated as a percentage of total assets or total liabilities and equity. On the statement of profit or loss and other comprehensive income, revenue is usually set equal to a base of 100%, with each statement item expressed as a percentage of the base amount. Such statements are often called **common size statements** since all items are presented as a percentage of some common base amount. These statements can be very useful in comparing entities which differ greatly in terms of the size of their operations.

Vertical analysis for Cache Ltd is presented in the last two columns of figures 19.1, 19.2 and 19.3. The analysis is useful for identifying the relative importance of items to the base used. For example, from figure 19.2, expenses excluding finance costs as a percentage of revenue increased from 87.9% to 90.8%. Vertical analysis is also an important tool for comparing data with other standards, such as the past performance of the entity, the current performance of competing entities, and averages developed for the industry in which the entity operates.

LEARNING CHECK

- ☐ Horizontal analysis is performed by comparing the difference between the figures for 2 separate years in terms of dollar amounts and percentage changes for ***all*** items in the statement of profit or loss and other comprehensive income, statement of financial position and statement of changes in equity.
- ☐ Trend analysis is performed when dollar amounts over a series of accounting periods are converted to indexes (the base year being set at 100) and compared with a base year.
- ☐ Vertical analysis restates the dollar amount of each item reported in the statement of profit or loss and other comprehensive income as a percentage of revenue and those in the statement of financial position as a percentage of total assets or total liabilities and equity. A similar analysis can be performed on the statement of changes in equity.

19.4 Ratio analysis

LO 4 **Conduct ratio analysis to assess an entity's profitability, liquidity and financial stability.**

A financial statement **ratio** is calculated by dividing the dollar amount of one item reported in the financial statements by the dollar amount of another item reported. The purpose is to express a relationship between two relevant items that is easy to interpret and compare with other information. As already noted, the relationship of current assets to current liabilities is of interest to most statement users. For a company reporting current assets of $600 000 and current liabilities of $150 000, the relationship between the two items, the current ratio, is 4:1 ($600 000/$150 000). This means that current assets are 4 times greater than current liabilities. The relationship could also be converted to a percentage (400%) by multiplying the ratio by 100. In ratio form, however, the relationship between the two items can be more easily compared with other standards such as the current ratio of other companies or industry-wide ratios.

Relevant relationships can exist between items in the same financial statement or between items reported in two or more different financial statements, so there are a number of ratios that could be calculated. The analyst must give careful thought initially to choosing those ratios that express relationships relevant to the area of immediate concern. The analyst must also keep in mind that a ratio, when used by itself, may have little significance. Consequently, to evaluate the adequacy of a certain relationship, the ratio should be compared with other standards, e.g. industry standards.

Ratios are classified and presented in several different ways. In this chapter, three general groups of ratios are discussed, those commonly used to evaluate ***profitability***, ***liquidity*** and ***financial stability***. Unless otherwise noted, calculations are based on the financial statements and additional information presented for Cache Ltd in figures 19.1 to 19.4.

Profitability ratios

Profitability analysis consists of tests used to evaluate an entity's financial performance during the year. The results are combined with other data to forecast potential profitability. Profit potential is important to long-term creditors and shareholders because the entity must operate at a satisfactory profit to survive. Profit potential is also important to suppliers and trade unions who are interested in maintaining a continuing relationship with a financially sound entity. Financial soundness obviously depends on current and future profitability.

Adequacy of profits is measured in terms of the relationship between profits and either total assets or equity, the relationship between profits and sales, and the availability of profits to ordinary shareholders. If profits are not adequate, the next step is to determine why they are not. Is the sales volume too low? Is the selling price too low? Are the cost of sales and/or other expenses too high? Is the investment in assets excessive in relation to the entity's sales? Some profitability ratios have already been introduced in chapter 6. The following ratios add to these.

Return on assets

Return on assets is an attempt to measure the rate of return earned by management through normal business activities and is determined by dividing the profit by average total assets for the year:[1]

$$\text{Return on assets} = \frac{\text{Profit}}{\text{Average total assets}}$$

Average total assets is used in the denominator because the profits were produced by using resources throughout the period.

The management of Cache Ltd produced a rate of return on average total assets of 6.9% in 2017 and 10.1% in 2016 as calculated below (000 omitted in all figures):[2]

2017	**2016**
$\frac{952}{(14\,880 + 12\,600)/2} \times 100 = 6.9\%$	$\frac{1280}{(12\,600 + 12\,800)/2} \times 100 = 10.1\%$

During 2017, management through its ordinary activities produced 6.9 cents in profit before tax for every dollar invested in resources, compared with 10.1 cents in 2016. The decrease in rates is significant and results from decreased profit with an increased investment base. Such a decrease highlights the need for further investigation by the analyst. This ratio is useful in measuring management’s efficiency in using the entity’s assets to produce profits before tax and net finance costs.

Return on ordinary equity

The return on assets does not measure the return earned by management on the funds contributed by the ordinary shareholders. The return to the ordinary shareholders may be greater or less than the return on assets because of the entity’s use of **gearing** or **leverage**. Gearing is the use of borrowed funds or other fixed-return securities, such as preference shares, to earn a return greater than the interest or dividends paid to the creditors or preference shareholders. This was illustrated in an earlier chapter. Thus, if an entity is able to earn more on the borrowed funds than the fixed amount that must be paid to the creditors or preference shareholders, the return to the ordinary shareholders will be greater than the return on assets. If the amount earned is less than the fixed interest and preference dividend, the return to the ordinary shareholders will be less than the return on assets. The return may be calculated as:

$$\text{Return on ordinary equity} = \frac{\text{Profit} - \text{Preference dividends}}{\text{Average ordinary equity}}$$

The preference dividend, as found in figure 19.3 in the statement of changes in equity, is subtracted from profit to yield the portion of profit allocated to the ordinary shareholders. Profit is used because the final profit performance of the entity is of relevance to shareholders as this can be distributed to them as dividends. Ordinary equity is total equity less equity of preference shareholders.

The calculations for Cache Ltd are:

2017	**2016**
$\frac{952 - 60}{(5400 + 6960)/2} \times 100 = 14.4\%$	$\frac{1280 - 60}{(4800 + 5400)/2} \times 100 = 23.9\%$

Preference share capital of $600 000 is removed from the calculation of average equity figures (see figure 19.3). Both of these rates are higher than the returns calculated on total assets because the company earned a return on the assets financed by the creditors and preference shareholders greater than the interest or dividends paid to them. However, the percentage decreased from 23.9% to 14.4%, a decrease worthy of further investigation.

BUSINESS KNOWLEDGE

Round out that bottom line

Apple chief executive Tim Cook visited the huge Foxconn factories in China this March to check in on the production lines that churn out millions of iPhones and iPads every year. After reports of long hours and even suicides at Foxconn, global activist group the Fair Labor Association, which Apple belongs to, is working with the plant to ensure shifts are in line with legal limits by next year.

Companies of all kinds are realising that working conditions at a supplier are an integral part of business governance these days and a growing number are starting to report on their social, environmental and governance (ESG) impact. In Australia, companies such as Stockland, ANZ Bank and BHP Billiton are producing sustainability reports alongside their annual results. In 2011, 73 S&P/ASX 200 companies were reporting on sustainability, up from 67 in 2010.

And now a movement towards integrated reporting, which incorporates financial and ESG data, is gathering pace. Big accounting bodies, large firms and chief financial officers from a range of companies were all represented at a major conference on sustainability reporting organised by the Global Reporting Initiative's (GRI) Australian representatives in Melbourne this March. Up for discussion were the limitations and risks of relying on a snapshot or limited rear view of financial performance when a more comprehensive, forward-looking analysis is necessary. Integrated reporting takes a different approach from the current single bottom line annual report, which is now often accompanied by a series of sustainability data. The idea is to combine, in one document, all the essential financial data and ESG information that's material to an organisation's operations.

Accounting bodies and firms consider it an opportunity to streamline reporting, rather than further complicate it, and are working to establish a worldwide standard.

The chair of the International Integrated Reporting Council is Mervyn King. 'The changed world in which companies operate in the 21st century consists of financial crises, climate change, ecological overshoot, radical transparency, population growth and greater expectations from stakeholders,' said King, whose ground-breaking work has helped the Johannesburg Stock Exchange become the first in the world to mandate integrated reporting. Pension funds are demanding data for long-term investment, King said. They will drive demand for integrated reports because 'they are looking to make investments in companies that will still be around in 15 or 20 years' time'.

Source: Excerpts from Fox, C 2012, 'Round out that bottom line', ***The Australian Financial Review***, 11 May, p. 26.

Profit margin

Profit margin (also called return on sales or profit ratio) is calculated during a vertical analysis of the statement of profit or loss and other comprehensive income. It reflects the portion of each dollar of revenue that represents profit and is calculated by dividing profit from continuing operations by revenue:

$$\text{Profit margin} = \frac{\text{Profit}}{\text{Revenue}}$$

For Cache Ltd the rates are:

2017	2016
$\frac{952}{20\,640} \times 100 = 4.6\%$	$\frac{1280}{19\,164} \times 100 = 6.7\%$

Cache's revenue is all sales revenue. For 2017, each dollar of sales revenue produced 4.6 cents in profit. Consistent with the other rates calculated, this ratio indicates a declining profitability trend. The rates should, of course, be compared with other standards to be more useful. If the profit margin for competing entities is 4%, the 4.6% appears favourable, but the declining trend between the 2 years still should be investigated, and future trends watched carefully.

Adequacy of the profit margin depends on the industry in which the entity is involved. For example, it is expected that a supermarket chain would have a low profit margin as the turnover of goods is very large and sales volumes are high, whereas a jewellery store generally would have a high profit margin with low turnover of sales. For an entity involved in selling, the profit margin is affected by the gross profit margin and expense ratio.

Gross profit margin

An entity involved in selling goods should disclose the cost of sales. Sales revenue less cost of sales is referred to as gross profit. A gross profit margin is calculated during a vertical analysis of the statement of profit or loss and other comprehensive income. It reflects the portion of each dollar of sales revenue that represents gross profit and is calculated by dividing gross profit by revenue:

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Revenue}}$$

For Cache Ltd the rates are:

$$\begin{array}{cc} \textbf{2017} & \textbf{2016} \\ \frac{5202}{20\,640} \times 100 = 25.2\% & \frac{5214}{19\,164} \times 100 = 27.2\% \end{array}$$

For 2017, each dollar of sales revenue produced 19.2 cents in gross profit. The other 74.8 cents went to the cost of the goods sold. The 19.2 cents of gross profit per dollar of sales revenue is available to meet other expenses. Consistent with the other rates calculated, this ratio indicates a declining profitability trend. The rates should, of course, be compared with other standards to be more useful. If the gross profit margin for competing entities is 20%, the 19.2% appears favourable, but the declining trend between the 2 years still should be investigated, and future trends watched carefully.

Expense ratio

Expense ratios (by total or by category of expense) are calculated during a vertical analysis of the statement of profit or loss and other comprehensive income. It reflects the portion of each dollar of revenue that goes toward the expense item(s) and is calculated by dividing the expense by revenue:

$$\text{Expense ratio} = \frac{\text{Expense}}{\text{Revenue}}$$

For Cache Ltd the expense ratio (excluding finance costs) is:

$$\begin{array}{cc} \textbf{2017} & \textbf{2016} \\ \frac{3294}{20\,640} \times 100 = 16.0\% & \frac{2900}{19\,164} \times 100 = 15.1\% \end{array}$$

For 2017, 16 cents of each dollar of sales revenue went towards expenses. The higher ratio in 2017 relative to 2016 indicates an increasing expense ratio and this would be contributing to declining profitability. Like any other ratio, this ratio should be compared with other standards to be more useful. If the expense ratio for competing entities is 20%, the 16% appears favourable, but the increasing trend between the 2 years still should be investigated, and future trends watched carefully.

Earnings per share

Earnings per share (EPS) on ordinary shares is a commonly quoted and widely publicised ratio. Publicly listed companies disclose their EPS in their financial statements. As the term implies, this ratio is the conversion of the absolute dollar amount of profit to a per-share basis and is calculated:

$$\text{EPS} = \frac{\text{Profit (after income tax)} - \text{Preference dividends}}{\text{Weighted average number of ordinary shares issued}}$$

The calculation of EPS is much more complex than it appears above if a company has issued securities that are convertible into shares, complexities that are discussed in detail in IAS 33/AASB 133 ***Earnings per Share***.

In our illustration, the calculations are:

$$\begin{array}{cc} \textbf{2017} & \textbf{2016} \\ \dfrac{952-60}{(3000\times 6/12)+(2400\times 6/12)}=33.0\text{c} & \dfrac{1280-60}{2400}=50.8\text{c} \end{array}$$

The weighted average number of shares in 2017 is calculated assuming that 600 000 additional shares were issued in the middle of the year (see figure 19.3). This ratio can be interpreted to mean that for the year ended 30 June 2017 the company earned 33.0c per share on the average number of ordinary shares issued. EPS is disclosed in some daily newspapers in the securities exchange reports.

Price–earnings ratio and earnings yield

The price–earnings ratio (P/E ratio) is calculated by dividing the market price of an ordinary share by the earnings per share:

$$\text{P/E ratio}=\frac{\text{Market price per ordinary share}}{\text{Earnings per ordinary share}}$$

This ratio indicates how much an investor would have to pay in the market for each dollar of earnings. It enhances a statement user's ability to compare the market value of one ordinary share relative to profits with that of other entities.

Assuming an average market price of $2.40 per share for Cache Ltd ordinary shares in 2017, the P/E ratio is:

$$\frac{\$2.40}{33.0\text{c}}=7.3\text{ times}$$

The ordinary shares of Cache Ltd are said to be selling for 7.3 times current profits.

P/E ratios vary widely between industries since they represent investors' expectations for a company. High P/E ratios are associated with growth companies, whereas more stable companies have low P/E ratios. Furthermore, financially strong 'blue chip' companies that have good future prospects generally have higher P/E ratios.

The reciprocal of the P/E ratio is known as earnings yield. Earnings yield indicates the average rate of return available to a prospective investor if an investment is made in the company's shares at the market price, and is calculated as follows:

$$\text{Earnings yield}=\frac{\text{Earnings per ordinary share}}{\text{Market price per ordinary share}}$$

For Cache Ltd, earnings yield is:

$$\frac{33.0\text{c}}{\$2.40}\times 100=13.75\%$$

Thus, if an investor buys one share in Cache Ltd at a market price of $2.40, the investor can expect to receive an average return of 13.75% at current levels of profitability.

Dividend yield and payout ratio

Dividend yield is calculated as:

$$\text{Dividend yield}=\frac{\text{Annual dividend per ordinary share}}{\text{Market price per ordinary share}}$$

Cash dividends of $136 000 (4.5c per share) were paid during 2017 to the ordinary shareholders of Cache Ltd (see figure 19.3). Assuming a market price of $2.40 per share, the dividend yield is calculated as follows:

$$\frac{4.5\text{c}}{\$2.40}\times 100=1.88\%$$

This ratio is normally calculated by an investor who is acquiring ordinary shares mainly for dividends rather than for appreciation in the market price of the shares. The percentage yield indicates a rate of return on the dollars invested and permits easier comparison with returns from alternative investment opportunities. Dividend yield is often quoted in daily newspapers as part of securities exchange price reports.

Investors interested in dividend yields may also calculate the percentage of ordinary share earnings distributed as dividends to the ordinary shareholders each period. This ratio is referred to as the dividend payout ratio:

$$\text{Dividend payout} = \frac{\text{Total dividends to ordinary shareholders}}{\text{Profit} - \text{Preference dividends}}$$

For Cache Ltd, the 2017 ratio is:

$$\frac{136}{952 - 60} \times 100 = 15.2\%$$

This ratio gives an investor an insight into management's dividend policy with dividends expressed as a percentage of profits available to the ordinary shareholders. A low payout ratio indicates that management is reinvesting earnings internally, desirable for those investors seeking growth in the market price of the shares.

Liquidity ratios

Liquidity is an important factor in financial statement analysis since an entity that cannot meet its short-term obligations may be forced into liquidation. The focus of this aspect of analysis is on working capital, or some component of working capital.

Current ratio

The current ratio is calculated as:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The current ratio, a measure of the entity's ability to satisfy its obligations in the short term, measures a margin of safety to the creditors. It indicates how much current assets exceed current liabilities on a dollar-for-dollar basis. A low ratio may indicate inability to meet short-term debts in an emergency. A high ratio is considered favourable to creditors, but may indicate excessive investment in working capital items that may not be producing profits.

Analysts often contend as a rule of thumb that the current ratio should be at least 1.5:1; in other words, an entity should maintain $1.50 of current assets for every dollar of current liabilities. Although such rules may be one standard of comparison, they are arbitrary and subject to exceptions and numerous qualifications in the modern approach to statement analysis. Deviations from the rule, nevertheless, highlight an area that deserves further investigation.

The current ratios for Cache Ltd for 2016 and 2017 are:

2017	2016
$\frac{8680}{3520} = 2.5{:}1$ (or 247%)	$\frac{7800}{3200} = 2.4{:}1$ (or 244%)

Cache Ltd shows a slight improvement in the relationship between current assets and current liabilities and, in the absence of other information, would be considered liquid, at least in the short run. However, a ratio of 2.4:1 or higher may signify excessive investments in current assets. It is expected that a service company, such as an airline, would operate satisfactorily with a lower current ratio than that of a retail store, which carries large levels of inventory.

Quick ratio or acid-test ratio

One of the limitations of the current ratio is that it includes inventory and prepaid assets in the numerator.

However, these items are not as liquid as cash, marketable securities, current bills receivable and accounts receivable. In the normal course of business, inventories must be sold and cash collected before cash is available. Also, most prepaid assets are to be consumed and cannot be readily converted into cash. A ratio used to supplement the current ratio that provides a more rigorous measure of liquidity is the quick ratio, also referred to as the acid-test ratio. The quick or acid-test ratio is calculated as follows:

$$\text{Quick ratio} = \frac{\text{Cash assets} + \text{Receivables}}{\text{Current liabilities}}$$

The higher the ratio, the more liquid the entity is considered. A rule of thumb used by some analysts is that a 0.9:1 ratio is adequate. A lower ratio may indicate that, in an emergency, the entity would be unable to meet its immediate obligations.

The quick ratio for Cache Ltd is calculated as:

2017 **2016**

$$\frac{1540 + 2920}{3520} = 1.3{:}1 \text{ (or 130\%)} \qquad \frac{1480 + 2580}{3200} = 1.3{:}1 \text{ (or 130\%)}$$

A ratio of 1.3:1 in both years may indicate high liquidity. However, this observation depends somewhat on the collectability of the receivables included in the numerator.

The current ratio and quick ratio are used to measure the adequacy of the current assets to satisfy current obligations at one point in time, the date of the statement of financial position. These ratios do not consider the movement of items making up the current assets. An important aspect of the entity's activities affecting liquidity is how long it takes to convert receivables and inventories into cash. Since receivables and inventories normally make up a large percentage of current assets, a quick ratio and a current ratio may be misleading if there is an extended interval between purchasing inventory, selling it, and collecting cash from the sale. The receivables turnover and

inventory turnover ratios are two other measures of liquidity that can yield additional information and which should be used in conjunction with the quick and current ratios.

Receivables (or debtors) turnover

The receivables (or debtors) turnover ratio is a measure of how many times the average receivables balance is converted into cash during the year. It is also considered a measure of the efficiency of the credit-granting and collection policies that have been established and is calculated as follows:

$$\text{Receivables turnover} = \frac{\text{Net sales revenue}}{\text{Average receivables balance}}$$

The higher the receivables turnover ratio, the shorter the period of time between recording a credit sale and collecting the cash. To be competitive, the credit policies established by an entity are influenced by industry practices. Comparison of this ratio with industry norms can reveal deviations from competitors' operating results.

In calculating this ratio, credit sales should be used in the numerator if the amount is available. However, such information is normally not available in general purpose financial statements, so net sales revenue is then used as a substitute. Also, an average of monthly receivables balances (including any trade bills receivable) should be used in the denominator. In the absence of monthly information, the year-end balance, or an average of the beginning of the year and end of the year balances, or averages of quarterly balances are used in the calculation. The calculations for Cache Ltd are:

2017 **2016**

$$\frac{20\,640}{(2580 + 2920)/2} = 7.5 \text{ times} \qquad \frac{19\,164}{(2640 + 2580)/2} = 7.3 \text{ times}$$

Strictly speaking, a more accurate calculation of receivables turnover is provided by using average ***gross*** receivables in the denominator, i.e. before deduction of any allowance for doubtful debts. Gross receivables represent the actual legal balances that an entity would be attempting to collect; hence, many financial analysts prefer to use gross receivables in the calculation instead of net receivables as illustrated above.

The gross receivables are available in the notes to the financial statements. Note that the receivables include GST whereas net sales revenue excludes GST. Provided the ratio is calculated consistently from period to period, this should not be a problem with this ratio.

Frequently, the receivables turnover ratio is divided into 365 days to derive the average number of days it takes to collect receivables from credit sales. The new ratio so calculated is often called the average collection period for receivables and may be calculated as:

$$\text{Average collection period} = \frac{\text{365 days}}{\text{Receivables turnover ratio}}$$

or, if expressed fully,

$$\text{Average collection period} = \frac{\text{Average receivables balance} \times 365}{\text{Net sales revenue}}$$

The average collection period for Cache Ltd is:

2017	**2016**
$\frac{\text{365 days}}{7.5} = 48.7 \text{ days}$	$\frac{\text{365 days}}{7.3} = 50.0 \text{ days}$

During 2017, the company collected the average receivables balance 7.5 times; or, expressed another way, it took 48.7 days to collect sales — an improvement over 2016. These measures are particularly useful if one knows the credit terms extended to customers. Assuming credit terms of 60 days, the average collection period of 49 days provides some indication that the credit policy is effective and that the entity probably is not burdened by excessive amounts of bad debts that have not been written off. A collection period significantly in excess of 60 days usually indicates a problem with either the granting of credit, collection policies, or both.

Inventory turnover

The control of the amount invested in inventory is an important part of managing a business. The size of the investment in inventory and inventory turnover depend on such factors as the type of business and time of year. A supermarket has a higher turnover than a motor vehicle dealer, and the inventory level of a seasonal business is higher at certain times in the operating cycle than at others.

The inventory turnover ratio is a measure of the adequacy of inventory and how efficiently it is being managed. The ratio is an expression of the number of times the average inventory balance was sold and then replaced during the year. The ratio is calculated as follows:

$$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Average inventory balance}}$$

Cost of sales (rather than sales) is used in the numerator because it is a measure of the cost of inventory sold during the year, and the cost measure is consistent with the cost basis of the denominator. Ideally, an average of monthly inventory balances should be calculated, but this information is generally not readily available. A half-yearly average can be calculated if interim reports are available for the entity.

The inventory turnover for Cache Ltd is:

2017	**2016**
$\frac{15\,438}{(3540 + 4020)/2} = 4.1 \text{ times}$	$\frac{13\,940}{(3720 + 3640)/2} = 3.8 \text{ times}$

As with the receivables turnover, the average days per turnover can be calculated by dividing 365 days by the turnover ratio:

2017	**2016**
$\frac{\text{365 days}}{\text{4.1 times}} = 89.0 \text{ days}$	$\frac{\text{365 days}}{\text{3.8 times}} = 96.1 \text{ days}$

The 2017 turnover ratio indicates that the average inventory was sold 4.1 times during the year compared with 3.8 times in 2016. In terms of days, average inventory was held approximately 89 days in 2017 before it was sold, compared with 96 days in 2016.

The increased turnover in 2017 would generally be considered a favourable trend. Inventory with a high turnover is less likely to become obsolete and decline in price before it is sold. A higher turnover also indicates greater liquidity since the inventory is converted into cash in a shorter period of time. A very high turnover, however, may indicate that the company is carrying insufficient inventory and is losing a significant amount of sales.

Financial stability ratios

We now focus on several tests used to analyse an entity's financial stability. **Financial stability** relates to the entity's ability to continue operations in the long term, to satisfy its long-term commitments, and still have sufficient working capital left over to operate successfully.

Debt ratio

The proportion of total assets financed by creditors is important to long-term investors since the creditors have a prior claim to assets in the event of liquidation — the creditors must be paid before assets are distributed to shareholders. The greater the percentage of assets contributed by shareholders, the greater the protection to the creditors. The debt ratio is a measure of the relationship between total liabilities and total assets and is calculated as:

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

Since this ratio is a measure of the margin of safety to the creditors of the entity in the event of liquidation, the lower the ratio, the greater the asset protection to the creditors.

For Cache Ltd, the ratio is:

2017	**2016**
$\frac{7320}{14\,880} = 0.492 \text{ or } 49.2\%$	$\frac{6600}{12\,600} = 0.524 \text{ or } 52.4\%$

Thus, for both years, approximately 50% of the assets were provided by the company's creditors. The fair value of the assets would have to decline to 50% below carrying amount before the creditors would not be protected in liquidation. (Note that this ratio is already available if vertical percentage analysis has been performed.)

Equity ratio

Another ratio which attempts to assess long-term stability and is sometimes used in place of the debt ratio is the equity ratio. This ratio is also referred to as the proprietorship ratio. The equity ratio examines the relationship between total equity and total assets and is calculated as:

$$\text{Equity ratio} = \frac{\text{Total equity}}{\text{Total assets}}$$

As with the debt ratio, the equity ratio is a measure of the margin of safety to creditors in the event of liquidation. The higher the equity ratio, the greater the asset protection to creditors. For Cache Ltd, the equity ratio is:

2017	**2016**
$\frac{7560}{14\,880} = 0.508 \text{ or } 50.8\%$	$\frac{6000}{12\,600} = 0.476 \text{ or } 47.6\%$

Note the following relationship:

$$\text{Debt ratio} + \text{Equity ratio} = 1 \text{ or } 100\%$$

i.e. for 2017:

$$49.2\% + 50.8\% = 100\%$$

Capitalisation ratio

A further variation of the debt ratio and the equity ratio which is sometimes used is the capitalisation ratio (also called leverage or gearing ratio), which is calculated as:

$$\text{Capitalisation ratio} = \frac{\text{Total assets}}{\text{Total equity}}$$

As with the debt and equity ratios, the capitalisation ratio points out the extent to which assets are financed by total equity. It is usually expressed as a ratio, e.g. 2:1, which indicates that the equity structure of the company is 50% equity and 50% debt. The capitalisation ratio is the reciprocal of the equity ratio and is simply another method of determining the amount of gearing in existence in the entity. It does not tell us anything about the desirability or otherwise of the gearing level in the entity. Trends in the ratio over time and comparison with the ratios of similar entities will provide useful information regarding long-term stability and the degree of risk that management has undertaken by financing assets with long-term borrowings.

Times interest earned

Current interest expense, disclosed as finance costs, are normally paid from funds provided by current activities. In recognition of this, analysts frequently calculate the relationship between profits and net finance costs with net finance costs being interest expense less interest revenue:

$$\text{Times interest earned} = \frac{\text{Profit before income tax} + \text{Net finance costs}}{\text{Net finance costs}}$$

This ratio (sometimes called the interest coverage ratio) is an indication of the entity's ability to satisfy periodic borrowing costs from current profits. Net finance costs and income taxes are added back to profit in the numerator because the ratio is a measure of profits available to pay net finance costs.

For Cache Ltd, the ratio is (see figure 19.2):

2017	**2016**
$\frac{1404 + 504}{504} = 3.8 \text{ times}$	$\frac{1854 + 460}{460} = 5.0 \text{ times}$

In 2016, profit before income taxes and finance costs was 5.0 times greater than finance costs. This ratio declined to 3.8 in 2017, which is marginal but still an adequate coverage by most standards. A rough rule of thumb is that profits should be 3 to 4 times the required finance costs. Again, the 3.8 times should be considered in relation to other trends in the entity's financial status and comparison with other standards. This ratio will fluctuate depending on the firm's profits, level of debt and level of interest rates.

Asset turnover ratio

As a general indicator of long-term stability, an analysis of the entity's ability to use its assets during a period to generate revenue may be expressed in the asset turnover ratio, which is measured by:

$$\text{Asset turnover ratio} = \frac{\text{Revenue}}{\text{Average total assets}}$$

This ratio measures the effectiveness with which all assets have been used by assessing the number of revenue dollars generated for each dollar of average assets used during the period. For Cache Ltd, the ratio is calculated as follows:

$$\textbf{2017} \qquad \frac{20\,640}{(14\,880 + 12\,600)/2} = 1.5 \text{ times} \qquad\qquad \textbf{2016} \qquad \frac{19\,164}{(12\,600 + 12\,800)/2} = 1.5 \text{ times}$$

Thus, assets have been turned over an average of 1.5 times in both 2016 and 2017. Trends in this ratio over a number of years may be significant in assessing the entity's long-term stability. The ratio expresses the entity's ability to use its assets in the generation of revenue. It is expected that entities with high inventory levels, e.g. retailers, would have a higher asset turnover ratio than entities with heavy investment in capital-intensive industries, e.g. a heavy equipment construction company.

LEARNING CHECK

☐ Ratios are calculated by dividing the dollar amount of one item reported in the financial statements by the dollar amount of another item to express the relationship between them.

☐ Profitability ratios are used to evaluate the financial performance during the year and are combined with other data to forecast potential future performance.

☐ Liquidity ratios are used to evaluate whether an entity can meet its short-term obligations.

☐ Financial stability ratios are used to analyse the ability of an entity to continue operations in the long term and still have sufficient working capital to operate.

19.5 Some important relationships

LO 5 Explain the relationships among ratios to assess the interaction between profitability, liquidity and financial stability.

It is important to understand certain relationships which can reveal significant components in maximising profitability. For instance, the return on assets, calculated in the section on 'Profitability ratios' (see p. 836), may also be determined as the product of the profit margin and asset turnover ratios, as follows:

$$\begin{aligned}\text{Return on assets} &= \text{Profit margin} \times \text{Asset turnover}\\ &= \frac{\text{Profit}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Average total assets}}\end{aligned}$$

This relationship illustrates that if an entity wants to maximise its return on assets, it needs to maximise its profit margin and its asset turnover. There are certain trade-offs here. One way to increase turnover is to lower prices, which may cause the profit margin to fall. Alternatively, it may be decided to raise the profit margin by increasing prices. This may lead, however, to lower asset turnover, thus having little effect on the overall return on assets.

Another important relationship is that between return on assets and return on ordinary equity:

$$\begin{aligned}\text{Return on ordinary equity} &= \text{Return on assets} \times \text{Capitalisation ratio (averaged)}\\ &= \text{Profit margin} \times \text{Asset turnover} \times \text{Capitalisation ratio}\\ &= \frac{\text{Profit}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Average total assets}} \times \frac{\text{Average total assets}}{\text{Total ordinary equity}}\end{aligned}$$

In order to maximise the return to ordinary shareholders, this relationship indicates the need to maximise profit margins, turnover of assets and gearing, i.e. debt finance. Of course, maximisation of gearing may lead to greater risk of instability through obligations associated with debt finance, but the relationship clearly indicates that, if an entity is prepared to take those risks, it may earn higher returns for its ordinary shareholders. Nevertheless, greater instability through debt finance may be offset by higher turnover of assets which tends to improve long-term stability.

If the accounting system is computerised, calculation of all the ratios may be done at any time for internal purposes by the computer. However, the important aspect of ratios is the interpretation of their significance, and it is here when the computer is not able to help. It is possible for small businesses also to automate the calculation of ratios by means of spreadsheets.

LEARNING CHECK

☐ If an entity wants to maximise its return on assets, it needs to maximise both profit margin and asset turnover.

☐ To maximise return to ordinary shareholders, the entity needs to hold profit margins, turnover of assets and gearing in balance.

19.6 Analysis using cash flows

LO 6 **Analyse and interpret the ratio information provided by a statement of cash flows.**

Entities are required to include, as part of their annual financial statements, a statement of cash flows, disclosing cash flows from operating, investing and financing activities. Preparation of this statement has been dealt with in the previous chapter. In this section, our purpose is to discuss how information contained in the statement of cash flows can be analysed and interpreted in order to provide the analyst (and user) with additional insight into the performance and financing and investing activities of the entity.

Ratios derived from the statement of cash flows can help the analyst evaluate the **cash sufficiency** of the entity, i.e. the adequacy of the cash flows to meet the entity's cash needs, and the **cash flow efficiency** of the entity, i.e. how well the entity generates cash flows relative both to other periods and to other entities. The overall aim of these ratios is to evaluate the entity's performance relative to other periods, and to other entities in the same industry. The ratios are not useful in themselves, but must be compared with the same ratios in previous periods and for the industry in order to assess the entity's relative performance. Analysis of trends in these ratios over time, and for the industry, is extremely important if valid conclusions are to be reached. Furthermore, predictions of these ratios for the future, based on past trends and on other economic information, should be helpful in evaluating the entity's performance and financial position and in assessing strategies for the future.

In order to discuss additional relationships provided by a statement of cash flows, figure 19.5 presents the summarised statements of cash flows for 2016 and 2017 for Cache Ltd.

Figure 19.5 Statement of cash flows for Cache Ltd

CACHE LTD
Statement of Cash Flows
for the years ended 30 June

	2017 ($000)	2016 ($000)
Cash flows from operating activities		
Cash receipts from customers	$20 300	$19 224
Cash paid to suppliers and employees	(18 698)	(17 084)
Interest paid	(504)	(460)
Income taxes paid	(480)	(560)
Net cash from (used) in operating activities	618	1 120
Cash flows from investing activities		
Purchase of property, plant and equipment	(1 766)	(760)
Proceeds from sale of property and plant	—	500
Proceeds from sale of investments	200	—
Net cash from (used) in investing activities	(1 566)	(260)
Cash flows from financing activities		
Preference dividends paid	(60)	(60)
Ordinary dividends paid	(136)	(620)
Proceeds from issue of ordinary shares	804	—
Proceeds from long-term borrowings	400	—
Repayment of long-term borrowings	—	(200)
Net cash from (used) in financing activities	1 008	(880)
Net increase (decrease) in cash and cash equivalents	60	(20)
Cash and cash equivalents at beginning of year	1 480	1 500
Cash and cash equivalents at end of year	$ 1 540	$ 1 480

Cash sufficiency ratios

The purpose in calculating these ratios is to assess the entity's relative ability to generate sufficient cash to meet the entity's cash flow needs. All ratios are based on the entity's cash flows from operations, and attempt to assess whether these cash flows are sufficient for the payment of debt, acquisitions of assets and payment of dividends.

Cash flow adequacy ratio

Cash flow adequacy is an attempt to assess the entity's ability to generate sufficient operating cash flows to cover its main cash requirements, namely, the payment of debt, the acquisition of assets, and the payment of dividends:

$$\text{Cash flow adequacy} = \frac{\text{Cash flows from operating activities}}{\text{Repayment of long-term borrowings} + \text{Assets acquired} + \text{Dividends paid}}$$

Assets acquired refers only to non-current assets, as acquisition of inventories is already included in the cash flow from operating activities. For Cache Ltd, the cash flow adequacy ratios are:

2017	2016
$\frac{618}{0 + 1766 + 196} = 0.31$	$\frac{1120}{200 + 760 + 680} = 0.68$

The ratio calculations indicate that the company's ability to generate sufficient cash flow from operating activities to cover its dividends, debt and acquisition of assets has fallen from 0.68 (68%) in 2016 to 0.31 (31%). As a guide, a value of 1 (100%) or more over a period of several years would seem to indicate an adequate ability to generate the entity's main cash requirements.

The fall in the ratio in Cache Ltd's case indicates the need for further investigation, and for the development of strategies to reverse the trend.

Overall coverage of the company's cash obligations is then examined more closely by the following three ratios — repayment of long-term borrowings, dividend payment, and reinvestment. These three ratios provide additional insight into the entity's ability to cover its cash outflows.

Repayment of long-term borrowings ratio

This ratio attempts to assess the entity's ability to generate cash from operating activities for the purpose of covering its long-term debt commitments in the current year. The ratio is calculated as follows:

$$\text{Repayment of long-term borrowings} = \frac{\text{Repayment of long-term borrowings}}{\text{Cash flows from operating activities}}$$

For Cache Ltd, the repayment of long-term borrowings ratios are:

2017	2016
$\frac{-}{618} = \text{n/a}$	$\frac{200}{1120} = 0.18$

The ratio in 2016 indicates that only 18% of the company's cash from operating activities was used for the repayment of long-term borrowings, whereas, in 2017, no debt was repaid. More borrowing occurred in 2017, thus requiring further drains on cash flows in the future.

Dividend payment ratio

This ratio attempts to assess the entity's ability to generate cash from operating activities for the purpose of covering its dividend commitments to both ordinary and preference shareholders. The ratio is calculated as follows:

$$\text{Dividend payment} = \frac{\text{Dividends paid}}{\text{Cash flows from operating activities}}$$

For Cache Ltd, the dividend payment ratios are:

2017	2016
$\frac{196}{618} = 0.32$	$\frac{680}{1120} = 0.61$

The fall in the ratio from 0.61 in 2016 to 0.32 in 2017 indicates that the company is paying out a smaller portion of its cash from operating activities in dividend payments in the current year. This shows that the company's fall in cash flow from operating activities has been followed by an even greater reduction in its dividend payments.

In some cases preference shares may be more in the nature of long-term debt rather than equity. If preference shares are to be regarded as debt, then the dividend payment ratio should exclude preference dividends, and the repayment of borrowings ratio should include any redemption of preference shareholders' funds in the numerator.

Reinvestment ratio

This ratio attempts to assess the entity's ability to generate cash from operating activities for the purpose of covering its asset acquisition payments. The ratio is calculated as follows:

$$\text{Reinvestment} = \frac{\text{Purchase of property, plant and equipment}}{\text{Cash flows from operating activities}}$$

For Cache Ltd, the reinvestment ratios are:

2017	**2016**
$\frac{1766}{618} = 2.85$	$\frac{760}{1120} = 0.68$

The ratios indicate that the company has increased significantly its proportional use of cash from operating activities in payments for asset acquisitions in 2017. An examination of industry trends and the company's expected capital expenditure commitments, which must be disclosed in footnotes to the financial statements under IAS 1/AASB 101 ***Presentation of Financial Statements***, is worthwhile to assess future trends in this ratio for the company.

When examined together, these last three ratios reflect an entity's usage of cash from operating activities to make discretionary and non-discretionary payments in the current year. If the three ratios are expressed as a percentage and added together, the analyst is able to see whether the entity's cash flow from operating activities has been sufficient (less than 100%) or insufficient (more than 100%) to cover these payments. (In fact, the addition of these three ratios provides the reciprocal of the cash flow adequacy ratio, expressed as a percentage.)

Debt coverage ratio

This ratio attempts to assess the entity's ability to generate cash from operating activities for paying its long-term debt commitments. The ratio uses information provided by the statement of cash flows and the statement of financial position. It is calculated as follows:

$$\text{Debt coverage} = \frac{\text{Non-current liabilities}}{\text{Cash flows from operating activities}}$$

For Cache Ltd, the debt coverage ratios are:

2017	**2016**
$\frac{3800}{618} = 6.15$	$\frac{3400}{1120} = 3.0$

The ratios provide an approximate measure of how many years it would take for the company to repay its long-term debt commitments, given its current cash flows from operating activities. In this sense, it provides the analyst with a crude measure of the debt payback period. Because additional borrowings have occurred in 2017, Cache Ltd's debt coverage ratio (payback period) has jumped from 3.0 (years) in 2016 to 6.15 (years) in 2017. Once again, this information should not be used in isolation but must be examined with other data to assess the entity's relative performance.

Cash flow efficiency ratios

Analysts, and the investors and creditors they represent, are always interested in an entity's efficiency in generating profits. With the statement of cash flows, it is possible as well to analyse an entity's performance in terms of its efficiency for generating operating cash flows. Cash flow efficiency ratios attempt to assess the relationship between items in the statement of profit or loss and other comprehensive income with cash flows as disclosed in the statement of cash flows, in an attempt to assess the efficiency of an entity in turning accrual-based profits into actual cash flows. The entity's performance in generating cash flows can be just as important as the entity's profitability.

Cash flow to revenue ratio

This ratio, expressed as a percentage, attempts to assess the proportion of an entity's revenue which is eventually realised as cash flow from operating activities. The ratio uses information provided by the statement of cash flows and the statement of profit or loss and other comprehensive income. It is calculated as follows:

$$\text{Cash flow to revenue} = \frac{\text{Cash flows from operating activities}}{\text{Revenue}}$$

For Cache Ltd, the cash flow to revenue ratios are:

$$\begin{array}{cc} \textbf{2017} & \textbf{2016} \\ \dfrac{618}{20\,640} \times 100 = 3.0\% & \dfrac{1120}{19\,164} \times 100 = 5.8\% \end{array}$$

This ratio can be compared with the profit margin ratio calculated earlier in assessing an entity's profitability. Over time, the cash flow to revenue ratio should be approximately equal to the profit margin. Any significant discrepancies indicate the efficiency with which the entity is or is not turning its accrual-based profits into operating cash flows.

Operations index

This ratio compares the entity's profit with the entity's cash flow from operating activities, and attempts to provide an index of the cash-generating productivity of the entity's operations. The ratio uses information provided by the statement of cash flows and the statement of profit or loss and other comprehensive income. It is calculated as follows:

$$\text{Operations index} = \frac{\text{Cash flows from operating activities}}{\text{Profit}}$$

For Cache Ltd, the operations indexes are:

$$\begin{array}{cc} \textbf{2017} & \textbf{2016} \\ \dfrac{618}{952} = 0.65 & \dfrac{1120}{1280} = 0.88 \end{array}$$

The index shows that Cache Ltd has been less efficient in 2017 in turning profits on an accrual basis into actual cash flows, as indicated by the fall from 0.88 in 2016 to 0.65 in 2017. Comparisons over time and with other entities in the industry are essential before any decisions are made and action taken.

Cash flow return on assets

This ratio attempts to measure the entity's return on assets in terms of the cash flow generated from operating activities. In order to compare this with the entity's accrual-based return on assets, the cash flow return must be calculated on a consistent basis with the accrual-based return. Hence, if the numerator for the return on assets is profit after net finance costs and tax, the cash flow from operating activities must be after any payments for interest and tax. The total assets must reflect the average assets for the period. The ratio uses information provided by the statement of cash flows and the statement of financial position. It is calculated as follows:

$$\text{Cash flow return on assets} = \frac{\text{Cash flows from operating activities}}{\text{Average total assets}}$$

For Cache Ltd, the cash flow return ratios are:

$$\begin{array}{cc} \textbf{2017} & \textbf{2016} \\ \dfrac{618}{(12\,600 + 14\,880)/2} = 4.5\% & \dfrac{1120}{(12\,800 + 12\,600)/2} = 8.8\% \end{array}$$

Comparison of this ratio with the return on assets on an accrual basis shows that Cache Ltd's cash flow return is lower than the accrual-based return in both years, and that both rates of return have fallen from 2016 to 2017. Analysis of trends over a longer period and comparison with other entities in the same industry must be conducted in order to assess the cash flow performance of Cache Ltd.

Many other ratios could be calculated using cash flow information, e.g. operating cash flow per share, which could then be compared with earnings per share; price–cash flow ratio which could then be compared with the price–earnings ratio. Cash-based liquidity ratios may include the calculation of cash from operating activities to current liabilities as a short-term indicator of liquidity, and cash flow from operating activities to total liabilities as an indicator of long-term liquidity. The cash flow ratios presented in this book are considered to be helpful tools for analytical purposes at an introductory level.

LEARNING CHECK

☐ Ratios derived from the statement of cash flows can help evaluate the cash sufficiency and cash flow efficiency of an entity.

☐ Cash sufficiency ratios assess the entity's relative ability to generate sufficient cash to meet the entity's cash flow needs.

☐ Cash flow efficiency ratios assess the relationship between items in the statement of profit or loss and other comprehensive income and statement of cash flows to assess the efficiency of an entity in turning accrual-based profits into actual cash flows.

BUSINESS KNOWLEDGE

Nine nearly broke covenants

Nine Entertainment has formally confirmed it was within just weeks of being in breach of its debt covenants when it sealed a deal with key hedge funds to recapitalise in October. The company's 61 pages of financial statements for the 2011–12 financial year were released by the Australian Securities & Investments Commission yesterday, after being lodged early last month. The statements show that Nine more than doubled its net loss, after tax, from $427 million in 2010–11 to $971.7m in 2011–12. This figure demonstrates how rapidly the company's financial situation was unravelling in the lead-up to the gruelling negotiations between its previous owner CVC and Nine's key debt holders — led by Nine's main new owners, hedge funds Apollo and Oaktree.

The company's comments on its own financial accounts also tell a tale. 'In the absence of an appropriate remedy, it is anticipated that the group will be in breach of certain debt covenants under the facilities as of 14 November, 2012,' the document states.

Agreement was ultimately reached between Nine and its debtholders to swap debt for equity in the recapitalised Nine. The company's accounts also show a $783.6m writedown for 'impairment of assets', including a $719m charge on the value of Nine's TV licences. The company's operating profit for 2011–12 also faced headwinds, falling from $278m in 2010–11 to $238m in 2011–12, a factor believed to be at least partly attributable to the ongoing poor advertising market. Meanwhile, the company's overall revenue fell marginally to $1.2 billion.

Nine's new hedge fund owners are believed to have bowed to legal pressure from some of the company's original lenders by engaging them in an 11th-hour dialogue, in an attempt to resolve an impasse that threatens to derail the deal that saved Nine from insolvency.

The original lenders — owed about $200m — have been taking legal advice about the Nine recapitalisation in its current form, because they do not wish to take equity in Nine. The scheme of arrangement worked out in October forces many original lenders to convert their senior loans into equity in a refinanced Nine.

Source: Tabakoff, N 2012, 'Nine nearly broke covenants', ***The Australian***, 15 December, p. 25.

19.7 Limitations of financial analysis

LO 7 Discuss the limitations of traditional financial statement analysis.

The analytical techniques introduced in this chapter are useful for providing insights into the financial position and financial performance of a particular entity. There are, nevertheless, certain limitations that should be kept in mind.

1. Financial analysis is performed on historical data mainly for the purpose of forecasting future performance. The historical relationships may not continue because of changes in the general state of the economy, the business environment in which the entity must operate, or internal factors such as change in management or changes in the policies established by management.
2. The measurement base used in calculating the analytical measures often is historical cost. Failure to adjust for inflation or changes in fair values may result in some ratios providing misleading information on a trend basis and in any comparison between entities. The return on assets includes profit in the numerator, which is affected by the current year's revenue and expense items measured in current dollars. Non-current assets and other non-monetary items, however, may be measured in historical dollars, which are not adjusted to reflect current price levels. Thus, the ratio divides items measured mainly in current dollar amounts by a total measured mainly in terms of historical dollars. This limitation is partly overcome where entities report or disclose fair values.

3. Year-end data may not be typical of the entity's position during the year. Knowing that certain ratios are calculated at year-end, management may attempt to improve a ratio by entering into certain types of transactions near the end of the year. For example, the current ratio can be improved by using cash to pay off short-term debt. Also, if the financial year-end coincides with a low point of activity in the operating cycle, account balances such as receivables, payables and inventories may not be representative of the balances carried in these accounts during the year.
4. Lack of disclosure in general purpose financial reports may inhibit the extent of the analysis. Any trends in such figures and any ratios using such information therefore cannot be determined.
5. The existence of one-off, or non-recurring, items in a statement of profit or loss and other comprehensive income, e.g. losses through floods, may inhibit the determination of trends to assess business efficiency. Hence, many analysts may exclude such items from all ratios. Nevertheless, in determining profitability these items must inevitably be considered in calculating the return to ordinary shareholders.
6. Sometimes the information contained in the general purpose reports may be subject to modifications, supplementations and/or qualifications expressed in accompanying documents such as directors' reports and auditors' reports. Any analysis and interpretation should take into consideration such matters.
7. Entities may not be comparable. Throughout this chapter it has been emphasised that one important comparison is between competing entities. However, because of factors such as the use of different accounting methods, size, and the diversification of product lines, data may not provide meaningful comparisons.

LEARNING CHECK

☐ When analytical techniques are being used, several limitations need to be kept in mind and the results of the analysis must be interpreted in light of these limitations.

19.8 The impact of capital markets research on the role of financial statement analysis

LO 8 Describe the impact of capital markets research on the role of financial statement analysis.

A further, not inconsiderable, difficulty with financial analysis as presented in this chapter is that the analysis assumes share markets are inefficient. In other words, it is assumed that an analyst can study all of the published information in relation to an entity in order to determine whether the entity's shares are under- or overvalued. As a consequence, the fundamental analysis in this chapter assumes that, merely by careful analysis of public information, people can make abnormal profits by investing in shares which are undervalued, and by selling shares which are overvalued.

Considerable research into the efficiency of share markets has questioned the reality of the assumptions of this fundamental analysis. Research into the behaviour of share prices has assumed that share markets are efficient in terms of incorporating all publicly available information into the share price of an entity. Thus, the share price is seen to reflect the entity's value at a point in time, and it is impossible for any analyst to generate abnormal profits by studying publicly available information. Instead, the investor is encouraged to invest in shares in accordance with the extent of the risk that he or she is prepared to take. Investors are encouraged, by this research, to diversify their portfolio of investments, in order to spread the risk in the event that any investment should fail.

Even though capital markets research has pushed the view that the fundamental analysis of an entity's shares has been misguided, there are, nevertheless, many analysts who still engage in the practice of fundamental analysis. Why? There are a number of reasons.

- Some may not be educated sufficiently as to the 'futility' of their task.
- Many people still believe that they can make a 'killing' in the stock market, and are prepared to consult analysts to help them in their quest.
- If the share market is efficient, this may have come about because of the existence of many analysts who are prepared to study publicly available information very closely. If these analysts ceased to do this work, the share market may become less efficient.
- The evidence from capital markets research is not conclusive, as some researchers appear to have developed strategies which suggest that abnormal profits can still be made by analysing publicly available information.

To conclude, the findings of capital markets research are not beyond question in spite of considerable research efforts. Hence, it is premature and perilous to discard fundamental analysis, as presented in this chapter, for analysing and interpreting the performance of an entity in the market. Further discussion of capital markets research is left to more advanced courses in accounting and finance.

Although there are other limitations of the techniques illustrated, those above should provide sufficient evidence that a user of general purpose financial statements must exercise caution in interpreting trends and ratios calculated.

LEARNING CHECK

☐ If the capital market is efficient, no abnormal benefits should be gained from financial statement analysis.
☐ If financial analysis is not conducted, then capital markets may not be efficient.
☐ The research on capital market efficiency is not conclusive.

A summary of the ratios discussed in this chapter is presented in figure 19.6.

Figure 19.6 Summary of ratios

Ratio	Method of calculation	Significance of each ratio
Profitability ratios		
Return on assets	$\frac{\text{Profit}}{\text{Average total assets}}$	Measures return earned through total assets provided by both creditors and owners.
Return on ordinary equity	$\frac{\text{Profit} - \text{Preference dividends}}{\text{Average ordinary equity}}$	Measures return earned on assets provided by owners.
Profit margin	$\frac{\text{Profit}}{\text{Revenue}}$	Measures net profitability of each dollar of sales.
Earnings per share	$\frac{\text{Profit (after income tax)} - \text{Preference dividends}}{\text{Weighted average number of ordinary shares issued}}$	Measures profit earned on each ordinary share.
Price–earnings ratio	$\frac{\text{Market price per ordinary share}}{\text{Earnings per ordinary share}}$	Measures the amount investors are paying for a dollar of earnings.
Earnings yield	$\frac{\text{Earnings per ordinary share}}{\text{Market price per ordinary share}}$	Measures the return to an investor purchasing shares at the current market price.
Dividend yield	$\frac{\text{Annual dividend per ordinary share}}{\text{Market price per ordinary share}}$	Measures the return to shareholders based on current market price.
Dividend payout	$\frac{\text{Total dividends to ordinary shareholders}}{\text{Profit} - \text{Preference dividends}}$	Measures the percentage of profits paid out to ordinary shareholders.

Ratio	Method of calculation	Significance of each ratio
Liquidity ratios		
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	A measure of short-term liquidity. Indicates the ability of an entity to meet its short-term debts from its current assets.
Quick ratio	$\frac{\text{Cash assets} + \text{Receivables}}{\text{Current liabilities}}$	A more rigorous measure of short-term liquidity. Indicates the ability of the entity to meet unexpected demands from liquid current assets.
Receivables turnover	$\frac{\text{Net sales revenue}}{\text{Average receivables balance}}$	Measures the effectiveness of collections; used to evaluate whether receivables balance is excessive.
Average collection period	$\frac{\text{Average receivables balance} \times 365}{\text{Net sales revenue}}$	Measures the average number of days taken by an entity to collect its receivables.
Inventory turnover	$\frac{\text{Cost of sales}}{\text{Average inventory balance}}$	Indicates the liquidity of inventory. Measures the number of times inventory was sold on average during the period.
Financial stability ratios		
Debt ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	Measures percentage of assets provided by creditors and extent of using gearing.
Equity ratio	$\frac{\text{Total equity}}{\text{Total assets}}$	Measures percentage of assets provided by shareholders and the extent of using gearing.
Capitalisation ratio	$\frac{\text{Total assets}}{\text{Total equity}}$	The reciprocal of the equity ratio and thus measures the same thing.
Times interest earned	$\frac{\text{Profit before income tax} + \text{Net finance costs}}{\text{Net finance costs}}$	Measures the ability of the entity to meet its interest payments on borrowings out of current profits.
Asset turnover ratio	$\frac{\text{Revenue}}{\text{Average total assets}}$	Measures the effectiveness of an entity in using its assets during the period.
Cash sufficiency ratios		
Cash flow adequacy	$\frac{\text{Cash flows from operating activities}}{\text{Repayment of long-term borrowings} + \text{Assets acquired} + \text{Dividends paid}}$	Measures the entity's ability to cover its main cash requirements.
Repayment of long-term borrowings	$\frac{\text{Repayment of long-term borrowings}}{\text{Cash flows from operating activities}}$	Measures the entity's ability to cover its long-term debt out of cash from operating activities.
Dividend payment	$\frac{\text{Dividends paid}}{\text{Cash flows from operating activities}}$	Measures the entity's ability to cover its dividend payments.
Reinvestment	$\frac{\text{Purchase of property, plant and equipment}}{\text{Cash flows from operating activities}}$	Measures the entity's ability to pay for its non-current assets out of cash from operating activities.
Debt coverage	$\frac{\text{Non-current liabilities}}{\text{Cash flows from operating activities}}$	Measures the payback period for coverage of long-term debt.
Cash flow efficiency ratios		
Cash flow to revenue	$\frac{\text{Cash flows from operating activities}}{\text{Revenue}}$	Measures ability to convert revenue into cash flows.
Operations index	$\frac{\text{Cash flows from operating activities}}{\text{Profit}}$	An index measuring the relationship between profit and operating cash flows.
Cash flow return on assets	$\frac{\text{Cash flows from operating activities}}{\text{Average total assets}}$	Measures the operating cash flow return on assets before interest and tax.

KEY TERMS

Cash flow efficiency, p. 846
Cash sufficiency, p. 846
Common size statements, p. 835
Comparative statements, p. 834
Financial stability, p. 843
Gearing (leverage), p. 837
Horizontal analysis, p. 834
Liquidity (solvency), p. 831
Ratio, p. 835
Vertical analysis, p. 835

DISCUSSION QUESTIONS

1. After calculating the current ratio for an entity and finding that the ratio's value was 5:1, a student analyst decided that the company was in a sound position for paying its liquid liabilities. Discuss the shortcomings of making such a conclusion.

2. Discuss how, in choosing the accounting methods below, the following ratios can be affected — return on assets, quick ratio, profit margin, asset turnover:

- **(a)** a change in accounting method for depreciation from straight line to diminishing balance
- **(b)** revaluation of a non-current asset upwards at the beginning of the current year
- **(c)** recognising a loss through obsolescence of certain items of inventory.

3. In analysing the financial statements of an entity, the following ratios were calculated:

	2017	**2016**
Current ratio	1.1:1	1.3:1
Quick ratio	0.5:1	0.7:1
Receivables turnover	30 days	45 days
Inventory turnover	3 times	4 times
Profit margin	10%	7%

Evaluate the entity's liquidity.

4. Discuss the role(s) that an entity's cash flow data can play in analysing the entity's financial performance.

5. Explain the association between the profit margin and asset turnover.

6. Describe the information conveyed by:

- **(a)** a cash adequacy ratio
- **(b)** an operations index.

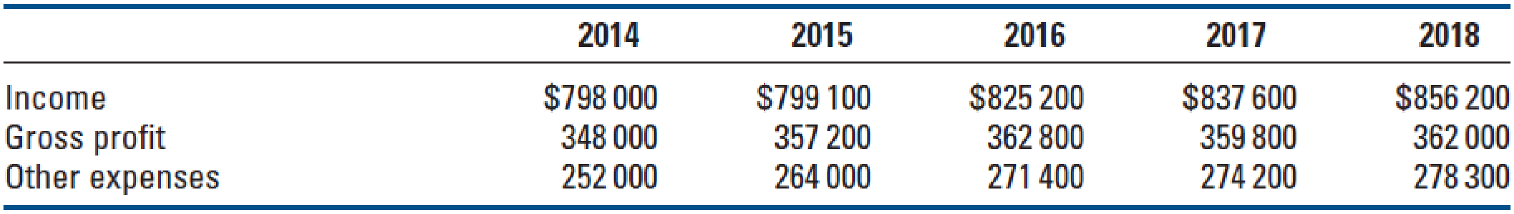
7. Discuss the general limitations of financial statement analysis.

8. Some accountants believe that financial statement analysis is of little benefit as it contradicts the findings of capital markets research. Discuss the findings of capital markets research and its implications for financial statement analysis.

EXERCISES

Exercise 19.1 HORIZONTAL ANALYSIS LO 3

Niagra Ltd reported the following financial data over a 5-year period.



	2014	2015	2016	2017	2018
Income	$798 000	$799 100	$825 200	$837 600	$856 200
Gross profit	348 000	357 200	362 800	359 800	362 000
Other expenses	252 000	264 000	271 400	274 200	278 300

Required

A. Prepare a trend analysis of the data using 2014 as the base year.
B. Graph the trends and discuss if the trends signify a favourable or unfavourable situation.

Exercise 19.2 TREND ANALYSIS LO 3

The asset section of the statement of financial position and notes thereto of Megabus Ltd is shown below:

	2017	2016
Cash assets	$ 78 300	$ 72 500
Receivables	138 030	129 000
Inventories	347 130	365 400
Prepaid insurance	3 420	3 800
Furniture and fittings	215 160	195 600
Plant and equipment	340 200	315 000

Required

Calculate the changes in dollar amounts and percentages for the company.

Exercise 19.3 COMMON SIZE STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME LO 3

Comparative figures from the statement of profit or loss of Misty Ltd are shown below:

	2017	2016
Revenue (all sales)	$450 000	$390 000
Cost of sales	292 300	287 000
Gross profit	157 700	103 000
Expenses (including tax)	89 200	68 500
Profit	$ 68 500	$ 34 500

Required

Prepare common size statements for the company for both years, and comment on any significant changes.

Exercise 19.4 COMMON SIZE STATEMENT OF FINANCIAL POSITION LO 3, 4

Comparative figures from the statement of financial position for Border Ltd are shown below:

	2017	2016
Current assets		
Cash at bank	$ 30 000	$ 25 000
Accounts receivable	52 000	54 000
Inventory	84 000	86 000
	166 000	165 000
Non-current assets		
Term deposit	50 000	40 000
Plant and equipment (net)	180 000	160 000
	230 000	200 000

Total assets	396 000	365 000
Current liabilities		
Accounts payable	48 000	52 000
Mortgage	20 000	20 000
	68 000	72 000
Non-current liabilities		
Mortgage	120 000	100 000
	120 000	100 000
Total liabilities	188 000	172 000
Net assets	$208 000	$193 000

	2017	**2016**
Equity		
Share capital	$100 000	$100 000
Retained earnings	108 000	93 000
	$208 000	$193 000

Required

Prepare common size statements for the company for both years, and comment on what this analysis reveals about Border’s financing policy.

Exercise 19.5 LIQUIDITY ANALYSIS LO 4

The following information has been extracted from the financial statements and the notes of Porcini Ltd.

	2017	**2016**
Cash assets	$ 33 100	$ 35 900
Marketable securities	107 000	100 300
Receivables	72 500	73 900
Inventories	182 000	166 800
Prepaid expenses	4 200	6 300
Property, plant and equipment	300 000	258 700
Current liabilities	178 200	160 500
Revenue (sales on credit)	950 600	902 900
Cost of sales	570 700	532 800

Required

A. Calculate the following for 2017 to one decimal place:
   1. current ratio
   2. quick ratio
   3. receivables turnover ratio
   4. average collection period of accounts receivable
   5. inventory turnover ratio
   6. average period for inventory turnover.
B. Analyse Porcini’s liquidity.

Exercise 19.6 PROFITABILITY AND FINANCIAL STABILITY ANALYSIS LO 4

The following information has been extracted from the financial statements and notes thereto of Bass and Dide Ltd, consultants.

	2017	**2016**
Services revenue	$580 000	$575 000

Interest expense	23 000	26 500
Income tax expense	44 600	53 000
Profit	52 500	56 100
Preference dividends	2 800	2 800
Total assets	540 000	555 000
Total liabilities	300 000	330 000
Preference share capital	62 000	62 000
Ordinary share capital	110 000	100 000
Retained earnings	68 000	63 000

Required

A. Calculate the following ratios for 2017:

  1. return on assets
  2. return on ordinary equity.

B. Calculate the following ratios for 2016 and 2017:

  1. profit margin
  2. debt ratio
  3. times interest earned.

C. Analyse the company's profitability and financial stability.

Exercise 19.7 PROFITABILITY ANALYSIS **LO 4**

The following information relates to the operations of Branded Ltd. The profit was $1 500 000. The company distributed preference dividends of $50 000, and ordinary dividends of $600 000. Over the year, issued ordinary shares were 2 000 000. Ordinary shares are currently selling for $8.00 per share.

Required

Calculate the following ratios:

1. earnings per share
2. price–earnings ratio
3. dividend yield
4. dividend payout.

Exercise 19.8 EFFECT OF TRANSACTIONS ON CURRENT RATIO **LO 4**

Paul's Parts Ltd's statement of financial position (extract only) on 30 June 2017 is set out below:

PAUL'S PARTS LTD
Statement of Financial Position
as at 30 June 2017

CURRENT ASSETS		CURRENT LIABILITIES	
Cash	$ 180 000	Payables	$180 000
Receivables	125 600	Other liabilities	208 000
Inventories	270 400		
Prepaid expenses	24 800		
	$ 600 800		$388 000

Required

A. Calculate the current and quick ratios.

B. A loan agreement entered into by the company in 2015 requires the company to maintain a minimum current ratio of 1.5:1. Management is concerned that this requirement will not be met and is considering entering into one or more of the following transactions before the end of the financial year, 30 June. Calculate the current and quick ratios after each of the following transactions and indicate whether the ratio would be increased, decreased or unaffected by the transaction.

1. Purchase $12 000 worth of inventory on credit.
2. Pay $75 000 on payables.
3. Give existing creditors a $60 000 bill to settle some payables.
4. Borrow $90 000 using a long-term bank loan.
5. Give existing creditors a $60 000 long-term loan to settle some payables.

Exercise 19.9 CASH SUFFICIENCY RATIOS LO 6

You are provided with the following information from the statement of cash flows for Precedent Ltd:

	2017	2016
Cash flow from operating activities	$640	$680
Repayment of long-term borrowings	120	135
Assets acquired	820	280
Dividends paid	220	220

Required

Calculate the following cash sufficiency ratios for Precedent Ltd for 2017 and 2016:

1. cash flow adequacy ratio
2. repayment of long-term borrowings ratio
3. dividend payment ratio.

Exercise 19.10 MARKET EFFICIENCY LO 8

Warren Buffett is regarded as one of the world's most successful investors. He does not believe that markets are efficient. The following quote is attributed to him: 'I'd be a bum on the street with a tin cup if markets were always efficient. Investing is a market where people believe in efficiency is like playing bridge with someone who has been told it doesn't any good to look at the cards.'

Required

Explain the distinction between price and value and why many analysts engage in the practice of fundamental analysis.

Exercise 19.11 LIMITATIONS OF RATIO ANALYSIS LO 7

Match Ltd and Box Ltd both began operations on 1 January 2017. For illustrative purposes, assume that at that date their statement of financial positions were identical and that their operations during 2017 were also identical. The only difference between the two companies is that they elected to use different accounting methods as can be seen below:

	Match Ltd	**Box Ltd**
Inventories	FIFO	Weighted average cost
Property, plant and equipment	Straight-line depreciation	Diminishing-balance depreciation

Summary financial information for both companies at the end of 2017 is presented below.

Statement of Profit or Loss
for the year ended 31 December 2017

	Match Ltd	Box Ltd
Revenues	$250 000	$250 000
Less: Cost of sales	138 000	150 000
GROSS PROFIT	112 000	100 000
Other expenses*	43 000	53 000

PROFIT	$ 69 000	$ 47 000

* Includes finance costs of $8000. Depreciation expense was $10 000 for Match Ltd and $20 000 for Box Ltd. Assume no income tax.

Statement of Financial Position
as at 31 December 2017

	Match Ltd	Box Ltd
Cash	$ 20 000	$ 20 000
Receivables	50 000	50 000
Inventories	52 000	40 000
Property, plant and equipment (net)	55 000	45 000
	$177 000	$155 000
Current liabilities	$ 30 000	$ 30 000
Non-current liabilities	45 000	45 000
Equity	102 000	80 000
	$177 000	$155 000

Required

A. Calculate and interpret the following ratios for each company:
   1. return on assets
   2. return on ordinary equity
   3. profit margin
   4. current ratio
   5. receivables turnover
   6. inventory turnover
   7. debt ratio.

B. Comment on the impact that use of different accounting methods can have on the calculation of ratios.

PROBLEMS

Basic
Moderate
Challenging

Problem 19.1 TREND ANALYSIS **LO 3**

Comparative data extracted from the general purpose financial statements and notes thereto of Express Delivery Ltd are presented below:

EXPRESS DELIVERY LTD
Comparative Statements of Profit or Loss (extracts)
for the years ended 31 December
($000)

	2012	2013	2014	2015	2016	2017
Revenue	$300	$315	$315	$325	$390	$415
Less: Cost of sales	185	190	185	192	215	250
GROSS PROFIT	115	125	130	133	175	165
Expenses	82	86	83	101	113	115
Profit	$ 33	$ 39	$ 47	$ 32	$ 62	$ 50

EXPRESS DELIVERY LTD
Comparative Statements of Financial Position (extracts)
as at 31 December
($000)

	2012	2013	2014	2015	2016	2017
ASSETS						
Cash	$ 18	$ 19	$ 18	$ 26	$ 25	$ 14
Receivables	25	30	28	43	52	74
Inventories	74	84	89	118	150	160
Property, plant and equipment	180	194	208	348	343	340
	$297	$327	$343	$535	$570	$588
LIABILITIES						
Payables	$ 64	$ 78	$ 84	$115	$140	$151
Non-current liabilities	72	69	66	150	145	143
EQUITY						
Share capital	120	120	120	180	180	180
Retained earnings	41	60	73	90	105	114
	$297	$327	$343	$535	$570	$588

Required

A. Prepare a trend analysis of the data.
B. Comment on any trends revealed by the analysis that you consider should be reported to managers.

Problem 19.2 PERCENTAGE ANALYSIS **LO 3, 4**

Certain items taken from the financial statements, the notes thereto and other records of Lucky Nine Ltd have been expressed as percentages of net revenue:

Percentage of net

	revenue	
	2017	**2016**
Revenue (net)	100	100
Beginning inventories	30	32
Purchases (net)	60	61
Ending inventories	26	33
Selling and distribution expenses	14	12
Administrative expenses	9	10
Income tax expense	3.9	5.4

Net revenue was $600 000 in 2016; it increased by 12% in 2017. Average trade accounts receivable were $69 000 in 2017 and $66 000 in 2016. Credit sales were 75% of total revenue in both years.

Required

A. By what percentage did the entity's profit increase or decrease in 2017 compared with 2016? Prepare a comparative statement of profit or loss (showing relevant items) including common size figures to support your answer.

B. Calculate and comment on the average collection period for the company's trade accounts receivable for both years, showing the basis for your calculation.

Problem 19.3 EFFECT OF TRANSACTIONS ON RATIOS LO 4

Sunrise Ltd completed the following transactions during a given year:

Transaction	Ratio
1. Sold obsolete inventory at cost	Profit margin
2 Redeemed debentures by issuing ordinary shares	Return on ordinary equity
3. Issued a share dividend on ordinary shares	Earnings per share
4. Declared a cash dividend on ordinary shares	Dividend payout
5. Paid the GST owing to the tax office	Dividend yield
6. Purchased inventory on credit	Quick ratio
7. Sold inventory for cash	Current ratio
8. Wrote off a bad debt against Allowance for Doubtful Debts	Current ratio
9. Collected an account receivable	Receivables turnover
10. Sold inventory on credit	Inventory turnover
11. Issued additional ordinary shares for cash	Debt ratio
12. Paid trade accounts payable	Return on assets

Required

State whether each transaction would cause the ratio listed with the transaction to increase, decrease or remain unchanged.

Problem 19.4 RATIO ANALYSIS AND REPORT LO 4, 5, 6

The following information relates to the business of Chef One. The owner is concerned about the profitability and financial structure of his business at 30 June 2017, especially since the bank is requiring repayment of the business's overdraft.

	30 June 2017	30 June 2016
Revenue (sales on credit)	$140 000	$105 000
Cost of sales	99 500	68 500
Other expenses	36 500	28 000
Cash and cash equivalents	(32 000)	28 000
Inventories	54 500	37 000
Trade accounts receivable (net)	50 000	28 000
Non-current assets (net)	77 000	46 000

Trade accounts payable	18 500	19 000
K. Pastry, Capital	108 000	120 000
Non-current liabilities	23 000	—

Inventory at 1 July 2016 was $22 500.

Required

A. Calculate the following ratios for 2016 and 2017:

1. profit margin
2. return on capital
3. current ratio
4. quick ratio
5. equity ratio
6. inventory turnover.

B. Write a short report to the owner in relation to the profitability and financial stability of the business.

C. Identify the cash flow ratios that would be useful to calculate to assist the owner to more fully understand the financial health of the business.

Problem 19.5 RATIO ANALYSIS

LO 4, 5, 7

Financial statements of iPud Ltd are presented below and on the next page.

Additional information

- Payables includes $5620 (2017) and $5730 (2016) trade accounts payable; the remainder is accrued expenses.
- Market prices of issued shares at year-end (2017):
  Ordinary, $12.00 Preference, $6.70

iPUD LTD

Comparative Statements of Financial Position

as at 31 December

($000)

	2017	2016
Current assets		
Cash and cash equivalents	$ 3 290	$ 4 220
Receivables (all trade)	8 200	7 350
Inventories	14 000	13 860
Total current assets	25 490	25 430
Non-current assets		
Property, plant and equipment	34 380	30 660
Total non-current assets	34 380	30 660
Total assets	$59 870	$56 090
Current liabilities		
Payables	$11 560	$11 980
Total current liabilities	11 560	11 980
Non-current liabilities		
Interest-bearing liabilities	$19 880	$18 900
Total non-current liabilities	19 880	18 900
Total liabilities	$31 440	$30 880
Equity		
Share capital	$15 400	$15 400
Retained earnings	13 030	9 810

Total equity	$28 430	$25 210

iPUD LTD
Statement of Profit or Loss
for the year ended 31 December 2017
($000)

Revenue (net sales)	$110 000
Less: Cost of sales	70 200
Gross profit	39 800
Less: Expenses	14 200
Selling and distribution expenses	9 940
Administrative expenses	3 120
Finance costs	
Total expenses	27 260
Profit before income tax	12 540
Income tax expense	3 816
Profit	$ 8 724

iPUD LTD
Statement of Changes in Equity
for the year ended 31 December 2017
($000)

Share capital	
Ordinary (14 400 000 shares):	
Balance at start of period	$14 400
Balance at end of period	14 400
Preference (500 000 shares):	
Balance at start of period	1 000
Balance at end of period	1 000
Total share capital	$15 400
Retained earnings	
Balance at start of period	$9 810
Total recognised profit for the period	8 724
Dividend paid — ordinary	(5 404)
Dividend paid — preference	(100)
Balance at end of period	$13 030

Required

A. Calculate the following ratios for 2017. The industry average for similar businesses is also provided.

	Industry average
1. return on assets	22.0%
2. return on ordinary equity	20.0%
3. profit margin	4.0%

4. earnings per share	45c
5. price–earnings ratio	12.0
6. dividend yield	5.0%
7. dividend payout	70%
8. current ratio	2.5:1
9. quick ratio	1.3:1
10. receivables turnover	13.0
11. inventory turnover	6.0
12. debt ratio	40.0%
13. times interest earned	6.0
14. asset turnover	1.8

B. Given the above industry averages, comment on the company's profitability, liquidity and use of financial gearing.
C. Discuss the limitations of such an analysis.

Problem 19.6 PREPARATION OF FINANCIAL STATEMENTS FROM RATIOS LO 4

The following values relate to various ratios determined for a sole trader, A. Solve, for the year ended 30 June 2017. At that date, the total assets in the statement of financial position were $1 200 000. The ratios relate to the accounts either in respect of the 12-month period or at the date of the statement of financial position for the end of the period.

1. Profit to total assets	15%
2. Current ratio	2.5:1
3. Acid-test ratio	2:1
4. Credit sales to trade accounts receivable	7.5:1
5. Gross profit to total sales	25%
6. Trade accounts payable to purchases	40%
7. Credit sales to total sales	75%
8. Profit margin	10%
9. Profit to equity (commencement of year)	30%
10. Non-current assets to current assets	10%

Required

Assuming there are no prepaid expenses and that trade accounts payable are the only liability, and rounding answers to the nearest dollar, prepare:

1. a detailed statement of profit or loss for the year ended 30 June 2017, including an itemised cost of sales calculation (assuming a periodic inventory system)
2. a statement of financial position as at 30 June 2017.

Problem 19.7 RATIO ANALYSIS LO 4, 5

The following financial statements were prepared for the management of Worldcorp Ltd. The statements contain some information that will be disclosed in note form in the general purpose financial statements to be issued.

WORLDCORP LTD
Statement of Profit or Loss
for the year ended 30 June 2017

Revenue (Note 2)	$850 500
Expenses, excluding finance costs (Note 4)	686 700
Finance costs	6 300
Profit before income tax	157 500
Income tax expense	63 000
Profit	$ 94 500

WORLDCORP LTD
Statement of Financial Position
as at 30 June 2017

Current assets		
Cash and cash equivalents		$ 37 800
Trade receivables	$299 250	
Less: Allowance for doubtful debts	18 900	280 350
Inventories		252 000
Total current assets		570 150
Non-current assets		
Land		63 000
Building	189 000	
Less: Accumulated depreciation	37 800	151 200
Store equipment	47 250	
Less: Accumulated depreciation	22 050	25 200
Total non-current assets		239 400
Total assets		809 550
Current liabilities		
Trade payables		270 900
Preference dividends payable		3 780
Ordinary dividends payable		25 200
Other current liabilities		12 600
Total current liabilities		312 480
Non-current liabilities		
Long-term borrowings (Note 5)		63 000
Total non-current liabilities		63 000
Total liabilities		375 480
Net assets		$ 434 070
Equity		
Share capital		$ 315 000
Retained earnings		119 070
Total equity		$ 434 070

WORLDCORP LTD
Statement of Changes in Equity
for the year ended 30 June 2017

Share capital	
Ordinary:	
Balance at start of period	$252 000

Balance at end of period	252 000
Preference (Note 6):	
Balance at start of period	63 000
Balance at end of period	63 000
Total share capital	$315 000
Retained earnings	
Balance at start of period	$ 53 550
Total recognised profit for the period	94 500
Dividend paid — preference	(3 780)
Dividend paid — ordinary	(25 200)
Balance at end of period	$119 070

Notes to the financial statements

Note 2:	**Revenue**	
	Sales revenue (net)	$ 850 500
Note 4:	**Expenses**	
	Cost of sales	567 000
	Selling and distribution expenses	89 000
	Administration expenses	30 700
Note 5:	**Long-term borrowings**	
	10% mortgage payable	63 000
Note 6:	**Preference shares**	
	6% preference shares	63 000

Additional information

1. The balances of certain accounts at the ***beginning*** of the year are:

Trade receivables	$315 000
Allowance for doubtful debts	(28 350)
Inventories	220 500

2. Total assets and total equity at the beginning of the year were $756 000 and $368 550 respectively.

Required

A. Identify the ratios that a financial analyst might calculate to give some indication of the following:
   1. a company's earning power
   2. the extent to which internal sources have been used to finance acquisitions of assets
   3. rapidity with which trade accounts receivable are collected
   4. the ability of a business to meet quickly unexpected demands for working capital
   5. the ability of the entity's earnings to cover its interest commitments
   6. the length of time taken by the business to sell its inventories.

B. Calculate and interpret each of the above ratios you have identified.

C. Identify what comparative analysis could be undertaken to better assess Worldcorp's financial performance and position.

Problem 19.8 HORIZONTAL AND VERTICAL ANALYSIS **LO 3**

The comparative financial statements of Stratum Ltd are shown below and on the next page.

STRATUM LTD
Comparative Statements of Profit or Loss
for the years ended 30 June
($000)

	Note	2017	2016
Revenue	2	$16 000	$13 750
Expenses, excluding finance costs	4	13 705	11 965
Finance costs		—	—
Profit before income tax expense		2 295	1 785
Income tax expense		878	535
Profit		$ 1 417	$ 1 250

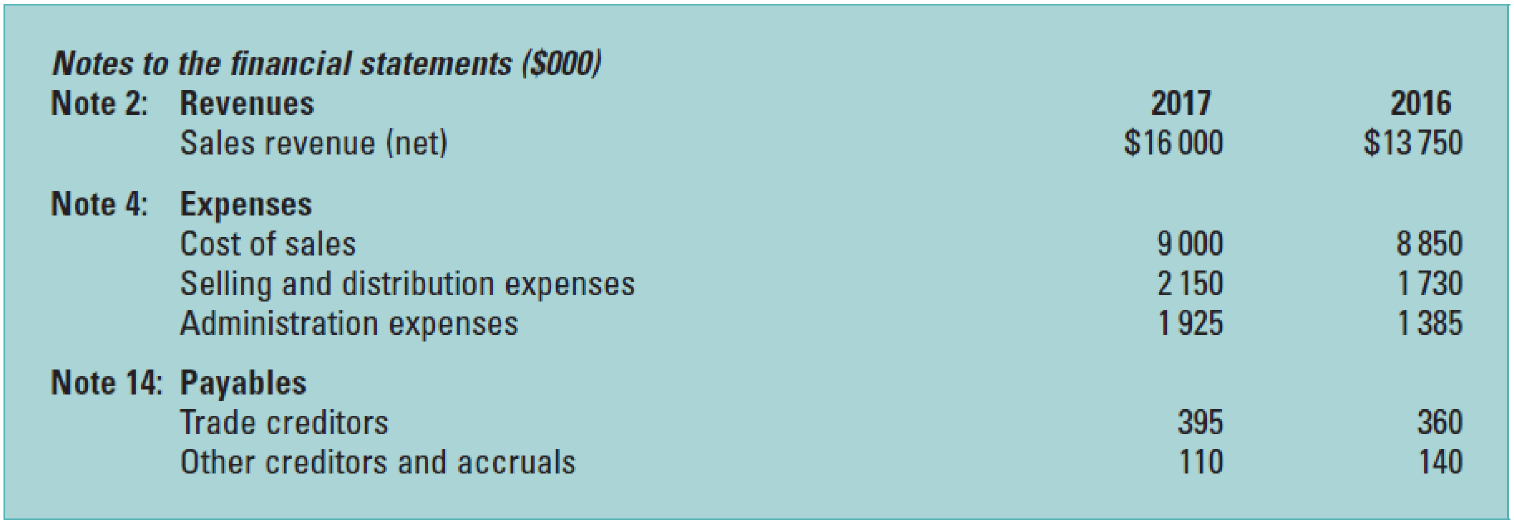
STRATUM LTD
Comparative Statements of Financial Position
as at 30 June
($000)

	2017	2016
Current assets		
Cash and cash equivalents	$ 80	$ 100
Trade and other receivables	380	335
Inventories	770	720
Total current assets	1 230	1 155
Non-current assets		
Other financial assets	140	160
Property, plant and equipment	3 400	2 785
Total non-current assets	3 540	2 945
Total assets	4 770	4 100
Current liabilities		
Trade and other payables (Note 14)	505	500
Total current liabilities	505	500
Non-current liabilities		
Long-term borrowings	1 750	1 750
Total non-current liabilities	1 750	1 750
Total liabilities	2 255	2 250
Net assets	$2 515	$1 850
Equity		
Share capital	$1 600	$1 500
Retained earnings	915	350
Total equity	$2 515	$1 850

STRATUM LTD
Statement of Changes in Equity
for the years ended 30 June

($000)

	2017	2016
Share capital		
Ordinary:		
Balance at start of period	$1 500	$1 500
Issue of share capital	100	—
Balance at end of period	1 600	1 500
Retained earnings		
Balance at start of period	350	200
Total recognised profit for the period	1 417	1 250
Dividend paid — ordinary	(852)	(1 100)
Balance at end of period	$ 915	$ 350



Notes to the financial statements ($000)

		2017	2016
Note 2:	**Revenues**		
	Sales revenue (net)	$16 000	$13 750
Note 4:	**Expenses**		
	Cost of sales	9 000	8 850
	Selling and distribution expenses	2 150	1 730
	Administration expenses	1 925	1 385
Note 14:	**Payables**		
	Trade creditors	395	360
	Other creditors and accruals	110	140

Required

A. Calculate the changes in the financial statements from 2016 to 2017 in both dollar amounts and percentages.
B. Prepare common size financial statements for 2017 and 2016.
C. Comment on any relationships revealed by the horizontal and vertical analyses.

Problem 19.9 RATIO ANALYSIS COMPARING ENTITIES **LO 4, 5, 7**

> ‘Dizzying’ is an appropriate adjective to describe the share price of Commonwealth Bank of Australia at the moment. In December 2012, the stock of Australia’s largest bank by market capitalisation broke through the $60 mark, a value it had only previously reached during the 2007 run-up to the global financial crisis. As it pushed through the heady $70 mark this week, with little sign of abating, investors are wondering how far it can go.
>
> Indeed, the share prices of all of the big four banks with the exception of National Australia Bank are trading above or close to pre-2008 highs.
>
> While most shareholders seem happy to own bank shares for the generous dividend attached to them — worth an average 7.1 per cent of their underlying investment at present — the question of whether banks are fully valued at their current share prices continues to linger.
>
> ***Source:*** Excerpts from Smith, M 2013, ‘Sky-high shares’, ***Business Review Weekly***, 14–20 March, p. 42.

Required

A. Calculate the following ratios for the four major Australian Banks for the most recent common financial year.
   1. return on assets
   2. return on equity

B. Explain the factors contributing to the banks' differing return on assets and return on equity.

C. For each of the banks, compare the earnings per share, price–earnings ratio, dividend payout and dividend yield. Discuss which bank you believe is the better investment.

DECISION ANALYSIS

Financial position of Needy Ltd

Needy Ltd has issued convertible notes under an agreement to maintain net assets, defined in the agreement as assets minus all liabilities except the convertible notes, at an amount not less than 2 times the amount of the convertible notes issued. Also under the agreement, working capital is to be maintained at not less than 100% of the convertible notes issued. Certain financial information for Needy Ltd is presented below:

NEEDY LTD
Adjusted Trial Balance
as at 30 June 2017

	Debit	Credit
Cash at bank	$ 100 000	
Marketable securities	750 000	
Accounts receivable	740 000	
Allowance for doubtful debts		$ 30 000
Inventories	800 000	
Prepaid expenses	60 000	
Land	180 000	
Buildings	1 560 000	
Accumulated depreciation – buildings		210 000
Equipment	1 840 000	
Accumulated depreciation – equipment		420 000
Accounts payable		690 000
Loan payable (due 30 June 2018)		750 000
Accrued expenses payable		60 000
Convertible notes		2 000 000
Share capital — ordinary		1 200 000
Retained earnings		670 000
	$6 030 000	$6 030 000

Additional information

1. Needy Ltd had recorded, as at 30 June 2017, $160 000 of collections from its customers which were not received until 2 July 2017 on the basis that such collections were probably in the mail before midnight on 30 June 2017.
2. In the afternoon of 2 July 2017, Needy Ltd issued cheques to its creditors, dating and recording the cheques as at 30 June 2017. The cheques amounted to $160 000 which is equal to the collections in transit.
3. Needy Ltd is considering a 1-day extension on the due date of the loan payable to 1 July 2018.

Required

A. Contrast, by means of comparative ratios, the reported conditions with those that you believe more appropriately represent the financial position of the company. Limit your comparison to the convertible note holders' agreement.

B. Explain if you believe the company met the conditions of the loan agreement.

C. Discuss the purpose of having such conditions in loan agreements.

FINANCIAL ANALYSIS

Float of Freelancer.com

The float of Freelancer.com next month is indicative of the world's evolution from hard copy to hard wired in the digital realm, where it is just as easy to talk to someone on the other side of the world as to somebody in your own house.

Freelancer.com presents a unique business model for an ASX-listed company, in that it has no local peers with which to compare share price performance. The company is an online marketplace where small businesses and consumers post jobs for freelancers. The prospectus says there are more than 600 job categories ranging from website design, to accounting, to manufacturing. Freelancer.com's main source of revenue comes from fees associated with posting and accepting jobs, as well as other subscription services and it depends heavily on its ability to generate website traffic, which it recognises as one of its biggest risks in its prospectus.

The initial public offering at 50c a share, should it be fully subscribed, will give Freelancer.com a market capitalisation of $218 million. However, only 30 million shares will be sold under the general offer and a further 5.1 million under the employee offer out of a possible 436 million shares. The float will raise about $17.55 million through the sale of a 6.9 per cent general stake and a 1.2 per cent employee stake.

Source: Mason, M 2013, 'Freelancer.com to test the waters for digital outsourcing', ***The Sydney Morning Herald***, 19 October, p. 4.

Required

A. Describe Freelancer.com's business model and what it means to 'float' on the Australian Securities Exchange.
B. Freelancer.com's price earnings multiple is described as 'relatively rare'. Discuss what a price earnings multiple reveals about a company. Compare Freelancer.com's price earnings ratio with that of Google, Twitter and LinkedIn.
C. Freelancer.com expected revenue to grow by 73% in 2014 relative to 2013 and after-tax profit to fall. Explain why profit is falling when revenue is growing. Using the most recent years of financial information, prepare a trend analysis of Freelancer.com's revenue, after-tax profit, and earnings per share.
D. Explain the usefulness of peer analysis when analysing a company.

ETHICS AND GOVERNANCE

Invest with a conscience

Read the article extract by Penny Pryor and answer the questions that follow.

Ethical investing used to be all about the 'no' or what you couldn't invest in because it was bad for your health, the environment or had poor human rights practices. But during the past decade, and particularly since the global financial crisis, there has been a big shift in socially responsible investing, and now there is more emphasis on the positive impact of an investment.

You could, for example, invest in a company that has a good effect on the environment because of the products — such as solar panels — that it manufactures. You could also chose to invest in a social impact fund, or a social benefit bonus, both products that use public funds to invest in programs that benefit society. Returns are based on how successful the programs are, for example, at preventing recidivism or restoring children previously in foster care.

Negative screening is still relevant, but it has become more of a macro practice, like the recent run of larger superannuation funds dropping tobacco companies from their investment holdings (see breakout). There are also niche investment opportunities, such as the equities fund-of-fund Third Link.

The good news is that as more investors and superannuates become engaged in what they invest in, and the potential impact that could have, there are more products available to them.

Source: Excerpts from Pryor, P 2013, 'Invest with conscience', ***The Age***, 10 October, p. 2.

Required

A. In 2013, the first social benefit bond was launched in Australia. This is a bond that receives government funding in order to support a program that meets a social need that also has the potential to save the government money. Identify the stakeholders in such an investment.

B. If ethical shares earned a lower return than other shares, discuss how much lower return you would be prepared to accept and still invest in ethical shares only. (The answer could be as low as 0% if you don't care if your investments are in ethical companies or not.)

C. One of the first ethical fund managers was Australian Ethical Investment. It now has around $750 million funds under management. Describe its investment philosophy and identify its one and three year return for investors.

D. Last year the $36 billion First State Super was one of the first major superannuation funds to drop tobacco investments from its portfolio. Comment on whether you believe that most employees know or care what companies their superannuation is invested in. Discuss if a lack of care may be construed as unethical behaviour.

COMMUNICATION AND LEADERSHIP

Financial analyses

Find the latest available annual report for a university (preferably your university), Write a report (no more than three pages) and prepare a five minute oral and visual presentation focusing on the university's financial performance and position and the main factors contributing to these.

1. There are variations in the way analysts calculate the same ratios. For example, some analysts prefer to calculate the return on assets using profit plus net finance costs. The rationale for adding back net finance costs (interest expense less interest revenue) to profit is to reflect that efficient use of the resources is not affected by the method of financing the acquisition of the assets. In other words, the net finance costs are considered a return to the creditors for the assets they have provided. Profit before tax is also often used rather than the after-tax figure, so that the ratio is not affected by external taxing policies.

   The various approaches to calculating the same ratio point out the need for an analyst to exercise care when comparing ratios calculated by different people.

2. In the denominator, the sum of the beginning and ending total assets is divided by 2 to determine the average of these two amounts. If sufficient information were available, a monthly or quarterly average would be preferred to minimise the effects of seasonal fluctuations.

APPENDIX

Time value of money

Everyone is familiar with the concept of interest. Interest is the payment made for the use of money. As such, interest is the measure of the time value of money. A dollar expected some time in the future is not equivalent to a dollar held today because of the time value of money. The dollar available today can be invested to earn interest so it will increase in value to more than one dollar in the future. We would consequently rather receive a dollar now than the same amount in the future even if we are certain of receiving it at the later date. Businesses often invest and borrow large sums of money, so the time value of money is an important topic. Fluctuations in interest rates in recent years have had a corresponding impact on the time value of money. For example, the average interest rates on short-term loans in the late 1980s exceeded 20% at times. In the early 1990s, short-term interest rates fell considerably, and by 2014, interest rates were in the range of 2.5%–4.75%. We begin the examination of the time value of money with a discussion of simple and compound interest.

Simple and compound interest

Simple interest is interest earned on an original amount invested (the ***principal***). The amount of principal and the interest payments remain the same from period to period since interest is calculated on the original principal amount only as:

$$\text{Interest (in dollars)} = \text{Principal (in dollars)} \times \text{Rate (\% per year)} \times \text{Time (in years)}$$

To illustrate the calculation of simple interest, assume that Brown Supplies Ltd invests $2000 for a 2-year period at 12% per year simple interest. The amount of interest received by Brown Supplies Ltd is:

$$\begin{aligned}\text{Interest} &= \text{Principal} \times \text{Rate} \times \text{Time}\\ &= \$2000 \times 0.12 \times 2\\ &= \$480\end{aligned}$$

Compound interest is interest earned on the original amount invested (principal) plus previously earned interest. As interest is earned during any period, it is added to the principal; interest is calculated on the new balance (often called the compounded amount) during the next period. Interest can be compounded in a number of ways such as daily, monthly, quarterly, half-yearly or yearly. As an illustration of compound interest, assume the investment by Brown Supplies Ltd is the same as that described above except the interest is compounded annually. The total interest earned for the 2-year period can be calculated:

(1) Year	(2) Beginning balance	(3) Compound interest [Column (2) × 0.12]	(4) Ending balance
1	$2000.00	$240.00	$2240.00
2	2240.00	268.80	$2508.80

In the second case, the total interest earned is $508.80, compared with the $480.00 calculated using simple interest. The difference of $28.80 represents interest earned in the second year on the first year's interest ($240 × 0.12) and is the product of using compound rather than simple interest. In most cases involving the time value of money, compound interest is applicable, so we will consider only compound interest in the discussion that follows.

The time value of money is used in a wide variety of accounting applications, including the valuation of debentures, valuation of liabilities, accounting for instalment sales, valuation of leases and capital budgeting. Four cases must be considered in developing an understanding of the time value of money:

Case I	Future value of a single amount
Case II	Future value of an ordinary annuity
Case III	Present value of a single amount
Case IV	Present value of an ordinary annuity.

Case I: Future value of a single amount

A single amount of money invested today will have a higher future value than the original principal because of interest earned. The ***future value of a single amount*** invested today can be determined as follows:

$$FV = PV(1+i)^n$$

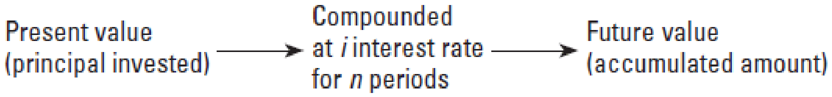
where: FV = Future value

PV = Present value of single amount invested (principal)

i = Interest rate per period

n = Number of periods

Schematically, the future-value calculation can be shown as:



Normally, the interest rate is expressed as an annual rate. However, interest often is compounded more frequently — daily, monthly, quarterly or half-yearly. In such cases, the interest rate and number of periods must coincide with the compounding schedule. For example, if 12% per year interest is earned over a 2-year period with quarterly compounding, the interest rate and number of periods used in the future-value formula are 3% and 8, respectively. This means that the annual interest rate (12%) is divided by the number of times compounding takes place (4) within a year, giving 3%, and the number of years (2) is multiplied by the number of compounding periods (4), giving 8 periods.

To illustrate the use of the future-value formula with annual compounding, consider again the Brown Supplies Ltd case with compound interest. The future value of the investment is found as follows:

$$\begin{aligned} FV &= \$2000(1 + 0.12)^2 \\ &= \$2508.80 \end{aligned}$$

As we see, the total amount receivable by Brown Supplies Ltd at the end of 2 years ($2508.80) is the same as we calculated earlier by adding the compound interest to the principal. If the investment involves quarterly compounding, we must revise the formula by dividing the 12% interest rate by 4 and multiplying 2 years by 4 as:

$$\begin{aligned} FV &= \$2000(1 + 0.03)^8 \\ &= \$2533.60 \end{aligned}$$

The amount of interest earned with quarterly compounding will be $24.80 more than it was with annual compounding. Note that the mathematics involved with the future value formula becomes more tedious as we increase the number of periods involved. Fortunately, tables have been developed for various combinations of interest rates and periods to avoid the necessity of using the formula each time a future value of a single amount of money must be calculated. Table A.1 shows the future value of $1 for various interest rates and various periods.

Suppose we want to know how much a dollar invested today at 12% interest compounded annually will be worth 10 years from now. We simply find the amount (called a ***factor***) in the 12% column and 10-periods row of table A.1 — 3.1058. Thus, the dollar invested now will become approximately $3.11 in 10 years because of the compound interest earned. Note that the left-hand column of table A.1 (and the other tables discussed later) refers to periods instead of years. This enables us to use the table even if interest is compounded more frequently than once a year. As we noted earlier for such cases, the number of years is multiplied by the number of times compounding occurs to determine the number of periods that must be considered. In addition, an annual interest rate is divided by the number of compounding periods to convert it to the appropriate interest rate.

For example, assume the dollar invested earlier will earn 12% interest compounded half-yearly instead of yearly. We need to multiply 10 years by 2 (20 periods) and divide 12% by 2 (6%) to determine the appropriate factor in table A.1. The factor is 3.2071 — located in the 6% interest rate column and 20-periods row. Therefore the dollar will grow to approximately $3.21 over the 10-year period. This same adjustment is required with the later tables whenever interest is compounded more frequently than once a year.

Table A.1 Future value of $1

Periods	2%	3%	4%	5%	6%	8%	10%	12%	16%	20%
1	1.0200	1.0300	1.0400	1.0500	1.0600	1.0800	1.1000	1.1200	1.1600	1.2000
2	1.0404	1.0609	1.0816	1.1025	1.1236	1.1664	1.2100	1.2544	1.3456	1.4400
3	1.0612	1.0927	1.1249	1.1576	1.1910	1.2597	1.3310	1.4049	1.5609	1.7280
4	1.0824	1.1255	1.1699	1.2155	1.2625	1.3605	1.4641	1.5735	1.8106	2.0736
5	1.1041	1.1593	1.2167	1.2763	1.3382	1.4693	1.6105	1.7623	2.1003	2.4883
6	1.1262	1.1941	1.2653	1.3401	1.4185	1.5869	1.7716	1.9738	2.4364	2.9860
7	1.1487	1.2299	1.3159	1.4071	1.5036	1.7138	1.9487	2.2107	2.8262	3.5832
8	1.1717	1.2668	1.3686	1.4775	1.5938	1.8509	2.1436	2.4760	3.2784	4.2998
9	1.1951	1.3048	1.4233	1.5513	1.6895	1.9990	2.3579	2.7731	3.8030	5.1598
10	1.2190	1.3439	1.4802	1.6289	1.7908	2.1589	2.5937	3.1058	4.4114	6.1917
11	1.2434	1.3842	1.5395	1.7103	1.8983	2.3316	2.8531	3.4785	5.1173	7.4301
12	1.2682	1.4258	1.6010	1.7959	2.0122	2.5182	3.1384	3.8960	5.9360	8.9161
13	1.2936	1.4685	1.6651	1.8856	2.1329	2.7196	3.4523	4.3635	6.8858	10.6993
14	1.3195	1.5126	1.7317	1.9799	2.2609	2.9372	3.7975	4.8871	7.9875	12.8392
15	1.3459	1.5580	1.8009	2.0789	2.3966	3.1722	4.1772	5.4736	9.2655	15.4070
16	1.3728	1.6047	1.8730	2.1829	2.5404	3.4259	4.5950	6.1304	10.7480	18.4884
17	1.4002	1.6528	1.9479	2.2920	2.6928	3.7000	5.0545	6.8660	12.4677	22.1861
18	1.4282	1.7024	2.0258	2.4066	2.8543	3.9960	5.5599	7.6900	14.4625	26.6233
19	1.4568	1.7535	2.1068	2.5270	3.0256	4.3157	6.1159	8.6128	16.7765	31.9480
20	1.4859	1.8061	2.1911	2.6533	3.2071	4.6610	6.7275	9.6463	19.4608	38.3376
25	1.6406	2.0938	2.6658	3.3864	4.2919	6.8485	10.8347	17.0001	40.8742	95.3962
30	1.8114	2.4273	3.2434	4.3219	5.7435	10.0627	17.4494	29.9599	85.8499	237.3763

The factors in table A.1 were determined by using the future-value formula with a principal of $1. By multiplying a specific factor found in the table for the appropriate combination of interest rate and number of periods by the single amount of money involved, the future value of that amount can be calculated. To illustrate the use of table A.1 when the amount involved is more than $1, assume again that the 2-year investment by Brown Supplies Ltd has a 12% interest rate compounded annually. The factor in table A.1 for 12% interest and 2 years is 1.2544, so the investment's future value is:

$$\begin{aligned} FV &= \$2000(1.2544) \\ &= \$2508.80 \end{aligned}$$

This is the same result we obtained earlier with the future-value formula. If interest is compounded quarterly, the factor from the table is 1.2668 (3% and 8 periods) so the future value is:

$$\begin{aligned} FV &= \$2000(1.2668) \\ &= \$2533.60 \end{aligned}$$

Again, the future value is the same as the one calculated earlier with the formula approach.

Case II: Future value of an ordinary annuity

In contrast to the single amount of money considered in Case I, an ***annuity*** consists of a series of payments over a specified number of periods, with compound interest on the payments. An ***ordinary annuity*** is a series of equal payments that occur at the end of each time period involved. We consider here ordinary annuities only and defer the subject of annuities due (in which the payments occur at the beginning of the time periods) to more advanced accounting courses.

The future value of an ordinary annuity is the sum of all payments plus the compound interest accumulated on each. For example, if a business makes a deposit of $5000 to an investment account at the end of each of 3 consecutive years with each deposit earning 12% interest compounded annually, the total amount accumulated over the 3-year period is the future value of an ordinary annuity. One way to calculate the future value of the series of deposits is to treat each deposit separately and determine the amount of interest earned:

(1) Year	(2) Beginning balance	(3) Annual interest [Column (2) × 0.12]	(4) Deposit	(5) Ending balance
1			$5 000	$ 5 000
2	$ 5 000	$ 600	5 000	10 600
3	10 600	1 272	5 000	16 872

It can be seen from these calculations that interest is earned for only two periods even though three deposits were made, because the first deposit was made at the end of the first year. As the number of deposits increases, this approach obviously becomes more time-consuming.

A formula can be used also to calculate the future value of an ordinary annuity. The formula is more complicated than the one used for the future value of a single amount, however, so it is not normally used. Instead, a table such as table A.2 is used because it contains factors for various combinations of interest rates and number of periods as calculated with a ***future value of an ordinary annuity*** formula when payments of $1 are involved.

Table A.2 Future value of an ordinary annuity of $1

Periods	2%	3%	4%	5%	6%	8%	10%	12%	16%	20%
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	2.0200	2.0300	2.0400	2.0500	2.0600	2.0800	2.1000	2.1200	2.1600	2.2000
3	3.0604	3.0909	3.1216	3.1525	3.1836	3.2464	3.3100	3.3744	3.5056	3.6400
4	4.1216	4.1836	4.2465	4.3101	4.3746	4.5061	4.6410	4.7793	5.0665	5.3680
5	5.2040	5.3091	5.4163	5.5256	5.6371	5.8666	6.1051	6.3528	6.8771	7.4416
6	6.3081	6.4684	6.6330	6.8019	6.9753	7.3359	7.7156	8.1152	8.9775	9.9299
7	7.4343	7.6625	7.8983	8.1420	8.3938	8.9228	9.4872	10.0890	11.4139	12.9159
8	8.5830	8.8923	9.2142	9.5491	9.8975	10.6366	11.4359	12.2997	14.2401	16.4991
9	9.7546	10.1591	10.5828	11.0266	11.4913	12.4876	13.5795	14.7757	17.5185	20.7989
10	10.9497	11.4639	12.0061	12.5779	13.1808	14.4866	15.9374	17.5487	21.3215	25.9587
11	12.1687	12.8078	13.4864	14.2068	14.9716	16.6455	18.5312	20.6546	25.7329	32.1504
12	13.4121	14.1920	15.0258	15.9171	16.8699	18.9771	21.3843	24.1331	30.8502	39.5805
13	14.6803	15.6178	16.6268	17.7130	18.8821	21.4953	24.5227	28.0291	36.7862	48.4966
14	15.9739	17.0863	18.2919	19.5986	21.0151	24.2149	27.9750	32.3926	43.6720	59.1959
15	17.2934	18.5989	20.0236	21.5786	23.2760	27.1521	31.7725	37.2797	51.6595	72.0351
16	18.6393	20.1569	21.8245	23.6575	25.6725	30.3243	35.9497	42.7533	60.9250	87.4421
17	20.0121	21.7616	23.6975	25.8404	28.2129	33.7502	40.5447	48.8837	71.6730	105.9306
18	21.4123	23.4144	25.6454	28.1324	30.9057	37.4502	45.5992	55.7497	84.1407	128.1167
19	22.8406	25.1169	27.6712	30.5390	33.7600	41.4463	51.1591	63.4397	98.6032	154.7400
20	24.2974	26.8704	29.7781	33.0660	36.7856	45.7620	57.2750	72.0524	115.3797	186.6880
25	32.0303	36.4593	41.6459	47.7271	54.8645	73.1059	98.3471	133.3339	249.2140	471.9811
30	40.5681	47.5754	56.0849	66.4388	79.0582	113.2832	164.4940	241.3327	530.3117	1181.8816

To illustrate the use of table A.2, consider again that the company makes three annual deposits of $5000 at the end of each year and earns 12% interest, compounded annually. The factor for 12% interest and 3 periods in table A.2 is 3.3744. Since the factor represents the future value of three payments of $1 at 12% interest, it is used to determine the future value of the actual payments made as:

$$\begin{aligned} \text{FV} &= \$5000(3.3744) \\ &= \$16\,872 \end{aligned}$$

This is the same answer we found earlier by treating each deposit separately. The three deposits of $5000 (total of $15 000) will increase in value to $16 872 over the 3-year period. The difference between the $16 872 future value and the deposits totalling $15 000 is interest amounting to $1872. If half-yearly deposits of $2500 had been involved during the 3-year period, the appropriate factors from table A.2 would be for 6 periods and 6%. Again, this adjustment is required because of half-yearly compounding. The factor for 6 periods and 6% from table A.2 is 6.9753, so the future value of the ordinary annuity is:

$$\begin{aligned} \text{FV} &= \$2500(6.9753) \\ &= \$17\,438.25 \end{aligned}$$

As we see, the future value of $17 438.25 with half-yearly payments and compounding is higher than the $16 872.00 calculated with yearly compounding because additional interest is earned.

Case III: Present value of a single amount

In Case I, we were concerned with the determination of the future value of a single amount of money. Many accounting applications of the time value of money involve the reverse of the future-value consideration: the concern with calculating the present value of some future amount of money. As noted earlier, money held today is worth more than the same amount of money received in the future because of the time value of money. Consequently, the present value of a given amount to be received in the future will be less than the future value.

To determine the present value of a specific future amount, the future value must be discounted with an appropriate interest rate to the present. The interest rate involved often is called a ***discount rate***. Future value and present value have a reciprocal relationship — as can be seen by comparing the formulas for the future value and present value of a single amount of money. Recall that the future value is calculated as:

$$\text{FV} = \text{PV}(1 + i)^n$$

In contrast, the ***present value of a single amount*** of money is calculated as:

$$\text{PV} = \frac{\text{FV}}{(1 + i)^n}$$

where: PV = Present value (principal)
FV = Future value of amount to be accumulated
i = Interest rate per period
n = Number of periods

Schematically, the present-value calculation can be shown as:

Present value (amount to be invested now) ← Discounted at *i* interest rate for *n* periods ← Future value (amount to be accumulated)

To illustrate the use of the formula for the present value of a single amount of money, consider again the investment made by Brown Supplies Ltd. We determined earlier that the future value of the investment was $2508.80 when interest was compounded annually. By discounting the $2508.80 for 2 years at 12%, we can determine its present value, which should be $2000, as:

$$\begin{aligned} PV &= \frac{\$2508.80}{(1+0.12)^2} \\ &= \$2000.00 \end{aligned}$$

If the interest is compounded quarterly, we determined earlier that the future value of the investment is $2533.60. However, the present value of the investment should remain at $2000 when it is discounted for 8 periods at 3% interest per period, or:

$$\begin{aligned} PV &= \frac{\$2533.60}{(1+0.03)^8} \\ &= \$2000.00 \end{aligned}$$

As another example of calculating the present value of a single amount of money, assume that Holt Ltd has a liability of $23 958 that must be paid in 3 years time. The company wants to know how much it must invest today to have $23 958 in 3 years if the amount earns 10% interest, compounded annually. The amount to be invested would be determined as:

$$\begin{aligned} PV &= \frac{\$23\,958}{(1+0.10)^3} \\ &= \$18\,000 \end{aligned}$$

Consequently, the $18 000 (present value) investment will increase in value to $23 958 (future value) by the end of the third year because interest amounting to $5958 will be earned. Like the future-value formulas, the maths involved in the calculation of present value with a formula can be tedious, so a table or business calculator is normally used. Table A.3 shows factors for various combinations of interest rates and number of periods when the present value of $1 is calculated. By multiplying an appropriate factor from the table by the single amount of money involved, its present value can be determined. For example, in the Brown Supplies Ltd case with annual compounding, a value of 0.7972 is found in table A.3 for 12% interest and 2 periods. The present value of the investment is thus:

$$\begin{aligned} PV &= \$2508.80(0.7972) \\ &= \$2000.02^{*} \end{aligned}$$

*A small rounding difference may occur as a result of using the factors from the tables.

Table A.3 Present value of $1 at the end of future periods

Periods	2%	3%	4%	5%	6%	8%	10%	12%	16%	20%
1	0.9804	0.9709	0.9615	0.9524	0.9434	0.9259	0.9091	0.8929	0.8621	0.8333
2	0.9612	0.9426	0.9246	0.9070	0.8900	0.8573	0.8264	0.7972	0.7432	0.6944
3	0.9423	0.9151	0.8890	0.8638	0.8396	0.7938	0.7513	0.7118	0.6407	0.5787
4	0.9238	0.8885	0.8548	0.8227	0.7921	0.7350	0.6830	0.6355	0.5523	0.4823
5	0.9057	0.8626	0.8219	0.7835	0.7473	0.6806	0.6209	0.5674	0.4761	0.4019
6	0.8880	0.8375	0.7903	0.7462	0.7050	0.6302	0.5645	0.5066	0.4104	0.3349
7	0.8706	0.8131	0.7599	0.7107	0.6651	0.5835	0.5132	0.4523	0.3538	0.2791
8	0.8535	0.7894	0.7307	0.6768	0.6274	0.5403	0.4665	0.4039	0.3050	0.2326
9	0.8368	0.7664	0.7026	0.6446	0.5919	0.5002	0.4241	0.3606	0.2630	0.1938
10	0.8203	0.7441	0.6756	0.6139	0.5584	0.4632	0.3855	0.3220	0.2267	0.1615
11	0.8043	0.7224	0.6496	0.5847	0.5268	0.4289	0.3505	0.2875	0.1954	0.1346
12	0.7885	0.7014	0.6246	0.5568	0.4970	0.3971	0.3186	0.2567	0.1685	0.1122
13	0.7730	0.6810	0.6006	0.5303	0.4688	0.3677	0.2897	0.2292	0.1452	0.0925
14	0.7579	0.6611	0.5775	0.5051	0.4423	0.3405	0.2633	0.2046	0.1252	0.0779
15	0.7430	0.6419	0.5553	0.4810	0.4173	0.3152	0.2394	0.1827	0.1079	0.0649
16	0.7284	0.6232	0.5339	0.4581	0.3936	0.2919	0.2176	0.1631	0.0930	0.0541
17	0.7142	0.6050	0.5134	0.4363	0.3714	0.2703	0.1978	0.1456	0.0802	0.0451
18	0.7002	0.5874	0.4936	0.4155	0.3503	0.2502	0.1799	0.1300	0.0691	0.0376
19	0.6864	0.5703	0.4746	0.3957	0.3305	0.2317	0.1635	0.1161	0.0596	0.0313
20	0.6730	0.5537	0.4564	0.3769	0.3118	0.2145	0.1486	0.1037	0.0514	0.0261
25	0.6095	0.4776	0.3751	0.2953	0.2330	0.1460	0.0923	0.0588	0.0245	0.0105
30	0.5521	0.4120	0.3083	0.2314	0.1741	0.0994	0.0573	0.0334	0.0116	0.0042

With quarterly compounding, the value in table A.3 is found for 3% interest and 8 periods (0.7894) and used as follows:

$$\begin{aligned}\text{PV} &= \$2533.60(0.7894)\\ &= \$2000.02\end{aligned}$$

Table A.3 also can be used to determine the amount Holt Ltd must invest today to have $23 958 in 3 years with the same factors discussed earlier. The factor in table A.3 for 10% interest and 3 periods is 0.7513, so the present value of $23 958 is:

$$\begin{aligned}\text{PV} &= \$23\,958(0.7513)\\ &= \$17\,999.65\end{aligned}$$

Note that each of the factors shown in table A.3 for a particular combination of interest rates and number of periods is one (1) divided by the corresponding factor found in table A.1. This must be true because of the reciprocal relationship between the formulas for future value and present value of a single amount. For example, the factor in table A.3 for 12% interest and 2 periods is 0.7972, which is the same as one (1) divided by 1.2544 (table A.1). Consequently, you can always determine the appropriate table A.3 factor from table A.1 and vice versa if both tables are not available.

Case IV: Present value of an ordinary annuity

In Case II, we considered how to determine the future value of an ordinary annuity — a series of equal payments made at the end of each time period involved. Our final concern with the time value of money is the reverse of Case II — that is, the present value of a series of equal future payments representing an ordinary annuity. The present value of an ordinary annuity is the amount that would have to be invested today at a certain compound interest rate to enable the investor to receive the series of future payments over a specified period of time. Assume that Briden Ltd has obligations of $6000 that must be repaid at the end of each of the next 3 years, including the current one. The company wants to know how much it would have to invest today to repay each of the obligations if the amount invested earns 10%, compounded annually.

One way to determine the amount of the required investment is to treat each $6000 payment as a single amount. Each payment is discounted to its present value (using table A.3), and the results are added to determine the total amount needed to be invested. If this approach is taken, the following calculations are necessary:

(1) Year	(2) Payment	(3) Factor	(4) Present value
		(Table A.3 — 10%)	[Column (2) × Column (3)]
1	$6000	0.9091	$ 5 454.60
2	6000	0.8264	4 958.40
3	6000	0.7513	4 507.80
			$14 920.80

The company would have to invest $14 920.80 today to have the money available to make payments of $6000 at the end of each of the next 3 years. If numerous payments are involved, this approach obviously is quite time-consuming. Because the $6000 payments can be viewed as an annuity since the three annual payments are the same, an easier way to discount them to their present value is to use table A.4 (p. 879). The factors in table A.4 have been derived from a formula representing the ***present value of an annuity of $1***. In the table, factors for various combinations of interest rates and number of periods are presented for the determination of the present value of an annuity of $1. Again, a given factor must be multiplied by the actual amount of each payment involved. The factor is 2.4869 for 10% and 3 periods. Therefore, the present value of the $6000 payments can be calculated as:

$$\begin{aligned}\text{PV} &= \$6000(2.4869)\\ &= \$14\,921.40\end{aligned}$$

As we see, the results are essentially the same as those obtained by discounting each payment and adding the individual present values. If half-yearly payments of $3000 were made to satisfy the company's obligations, the present value calculation would require an adjustment of the number of periods and the annual interest rate. Six periods (3 years × 2) and an interest rate of 5% (10% ÷ 2) would be used to determine the factor of 5.0757 from table A.4, and the present value of the annuity would be:

$$\begin{aligned}\text{PV} &= \$3000(5.0757)\\ &= \$15\,227.10\end{aligned}$$

Note that the present value with half-yearly payments is more than it was with yearly payments. The reason for this is that the amount invested will not have as much time to earn interest because payments are made every 6 months rather than at the end of the year.

Table A.4 Present value of an ordinary annuity of $1 at the end of future periods

Periods	2%	3%	4%	5%	6%	8%	10%	12%	16%	20%
1	0.9804	0.9709	0.9615	0.9524	0.9434	0.9259	0.9091	0.8929	0.8621	0.8333
2	1.9416	1.9135	1.8861	1.8594	1.8334	1.7833	1.7355	1.6901	1.6052	1.5278
3	2.8839	2.8286	2.7751	2.7232	2.6730	2.5771	2.4869	2.4018	2.2459	2.1065
4	3.8077	3.7171	3.6299	3.5460	3.4651	3.3121	3.1699	3.0373	2.7982	2.5887
5	4.7135	4.5797	4.4518	4.3295	4.2124	3.9927	3.7908	3.6048	3.2743	2.9906
6	5.6014	5.4172	5.2421	5.0757	4.9173	4.6229	4.3553	4.1114	3.6847	3.3255
7	6.4720	6.2303	6.0021	5.7864	5.5824	5.2064	4.8684	4.5638	4.0386	3.6016
8	7.3255	7.0197	6.7327	6.4632	6.2098	5.7466	5.3349	4.9676	4.3436	3.8273
9	8.1622	7.7861	7.4353	7.1078	6.8017	6.2469	5.7590	5.3282	4.6065	4.0310
10	8.9826	8.5302	8.1109	7.7217	7.3601	6.7101	6.1446	5.6502	4.8332	4.1925
11	9.7868	9.2526	8.7605	8.3064	7.8869	7.1390	6.4951	5.9377	5.0286	4.3271
12	10.5753	9.9540	9.3851	8.8633	8.3838	7.5361	6.8137	6.1944	5.1971	4.4392
13	11.3484	10.6350	9.9856	9.3936	8.8527	7.9038	7.1034	6.4235	5.3423	4.5327
14	12.1062	11.2961	10.5631	9.8986	9.2950	8.2442	7.3667	6.6282	5.4675	4.6106
15	12.8493	11.9379	11.1184	10.3797	9.7122	8.5595	7.6061	6.8109	5.5755	4.6755
16	13.5777	12.5611	11.6523	10.8378	10.1059	8.8514	7.8237	6.9740	5.6685	4.7296
17	14.2919	13.1661	12.1657	11.2741	10.4773	9.1216	8.0216	7.1196	5.7487	4.7746
18	14.9920	13.7535	12.6593	11.6896	10.8276	9.3719	8.2014	7.2497	5.8178	4.8122
19	15.6785	14.3238	13.1339	12.0853	11.1581	9.6036	8.3649	7.3658	5.8775	4.8435
20	16.3514	14.8775	13.5903	12.4622	11.4699	9.8181	8.5136	7.4694	5.9288	4.8696
25	19.5235	17.4131	15.6221	14.0939	12.7834	10.6748	9.0770	7.8431	6.0971	4.9476
30	22.3965	19.6004	17.2920	15.3725	13.7648	11.2578	9.4269	8.0552	6.1772	4.9789

Exercises

Exercise A.1 Simple interest

On 1 March, Hinkle Ltd borrowed $4000 at 10% simple interest for 3 years. Calculate the amount of interest payable over the 3 years.

Exercise A.2 Compound interest

Refer to exercise A.1. How much interest would be due if compound interest were involved?

Exercise A.3 Future value of a single amount

Using table A.1, calculate the following future values:

1. $10 000 invested at 8% for 5 years, compounded yearly
2. $10 000 invested at 8% for 5 years, compounded half-yearly
3. $10 000 invested at 8% for 5 years, compounded quarterly.

Exercise A.4 Future value of a single amount

An investor wants to know how much a $5000 investment made today will amount to in 15 years if it earns 10% interest, compounded yearly.

Exercise A.5 Future value of an annuity

Using table A.2, determine the following future values:

1. $10 000 invested at the end of each year for 5 years at 12%, compounded yearly
2. $5000 invested at the end of each 6 months for 5 years at 8% per year, compounded half-yearly
3. $2500 invested at the end of each 3 months for 5 years at 10% per year, compounded quarterly.

Exercise A.6 Future value of an annuity

An investor wants to know how much she will have if she makes annual payments of $5000 at the end of the year for 10 years assuming the money will earn 8%.

Exercise A.7 Present value of a single amount

Using table A.3, determine the present values of the following situations:

1. $10 000 in 5 years at 12%, compounded yearly
2. $10 000 in 5 years at 10%, compounded half-yearly
3. $10 000 in 5 years at 8%, compounded quarterly.

Exercise A.8 Present value of a single amount

Donna wants to establish an investment fund for her only daughter, who currently is 8 years old. She wants to know how much she must invest today for the amount to accumulate to $50 000 in 10 years at 12% per annum compounding annually. Ignore income tax.

Exercise A.9 Present value of an annuity

Using table A.4, calculate the present values of the following situations:

1. $10 000 to be paid at the end of each year for 5 years, assuming 10% interest and yearly compounding
2. $5000 to be paid at the end of each 6 months for 5 years, assuming 10% yearly interest and half-yearly compounding
3. $2500 to be paid at the end of each 3 months for 5 years, assuming 8% yearly interest and quarterly compounding.

Exercise A.10 Present value of an annuity

An investor wants to receive $5000 at the end of each year for the next 5 years (including the current year). How much must he invest today to achieve his objective assuming the money earns 8%?

Glossary

Accelerated depreciation methods:
Any depreciation methods that result in greater depreciation expense in the early years of an asset's life than in later years (p. 612).

Accommodation bills:
***See* Commercial bills**.

Account:
A device used to record increases and decreases for each item that appears in a financial statement (p. 77).

Account balance:
The difference between the sum of the monetary amounts of debits and credits recorded in a particular account (p. 77).

Accounting:
The process of identifying, measuring, recording and communicating economic information to permit informed judgements and economic decisions by users of the information (p. 8).

Accounting cycle:
The sequence of accounting procedures (from transactions to financial statements) that takes place during each accounting period (p. 77).

Accounting entity assumption:
The assumption that a business entity is separate and distinct from its owners and from other business entities (p. 44).

Accounting equation: An algebraic expression of the equality of assets to liabilities and equity:
Assets = Liabilities + Equity (p. 38).

Accounting manual:
A guide to the accounting policies and procedures used by the accounting staff of an entity (p. 84).

Accounting periods:
Periods of time covered by a set of financial statements (p. 76).

Accounting standards:
Standards issued for recording and communicating transactions and other economic events in all types of entities (p. 431).

Accounting system:
A collection of source documents, records, procedures, management policies and data-processing methods used to transform economic data into useful information (p. 282).

Accounts payable:
Amounts owed to creditors for the purchase of merchandise, supplies and services in the normal course of business; also commonly referred to as creditors or trade creditors (pp. 39, 684).

Accounts receivable:
Amounts due from customers for sale of goods or services performed on credit; also commonly referred to as debtors or trade debtors (pp. 41, 522).

Accrual basis:
The effects of transactions and events are recognised in accounting records when they occur, and not when the cash is received or paid (p. 45).

Accruals:
Expenses that have been incurred but not recorded, or revenues that have been earned but not recorded (p. 133).

Accumulated depreciation:

The amount of depreciation that has been recorded and accumulated on an asset since it was acquired; it is usually recorded in a contra account (p. 138).

Accumulated losses:

Losses incurred by the company in previous periods, represented by a debit balance in the Retained Earnings account (pp. 211, 386).

Additional mark-ups:

Increases above original retail prices (excluding GST) because of unusual demand or rises in the general level of prices (p. 580).

Adjusted trial balance:

A trial balance taken from the ledger after the adjusting entries have been posted (p. 146).

Adjusting entries:

Journal entries made at the end of an accounting period to update or correct the account balances (p. 133).

Adjustment (GST):

An increase or decrease in the net GST payable or refundable for a given tax period as a result of goods returned, a refund, an allowance made, or an amount written off a debt (p. 239).

Adjustment note:

A source document evidencing that an amount owing has been adjusted (also referred to as a credit note). For a GST-registered business, it also takes into account any GST included in the amount adjusted. The adjustment note must be in a format complying with GST legislative requirements (p. 239).

Administrative expenses:

Expenses associated with the operations of the general, accounting and personnel offices (p. 237).

Ageing the accounts receivable:

The process of classifying accounts receivable on the basis of the length of time they have been outstanding and probability of collection; also a basis for determining the amount of the allowance for doubtful debts (p. 526).

Agricultural produce:

The harvested product of an entity’s biological assets (p. 652).

Allotment:

The process whereby directors of the company allocate shares to those who have applied. Alternatively, an account recording an amount receivable on shares once allotment has been made (p. 389).

Allowance for doubtful debts:

The estimated amount of accounts receivable expected to be uncollectable (p. 525).

Amortisation:

The periodic allocation of the cost of intangible assets and natural resources to the periods benefiting from their use (pp. 651, 655).

Annual financial report:

The statement of profit or loss and other comprehensive income/income statement, statement of financial position/balance sheet and statement of cash flows, appropriate notes and a directors’ declaration presented to a company’s shareholders at the end of the financial year. Also includes a statement of changes in equity to comply with accounting standards (p. 718).

Annual leave:

Paid leave per year granted to all employees under industrial awards and employment contracts (p. 688).

Annual report:

A complete set of financial statements issued at the end of an entity’s accounting period (p. 76).

Application:

The process whereby prospective shareholders apply to the company for an allocation of shares. Alternatively, an account recording an amount of money receivable by the company on application for shares (p. 388).

Area of interest:

An individual geological area whereby the presence of a mineral deposit or oil or natural gas field is considered favourable or has been proven to exist (p. 650).

Assets:

Resources controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity (pp. 39, 449).

Assurance services:

Independent professional review services that improve the quality of information, or its context, for decision makers (p. 17).

Audit:

An examination by an independent accountant of the financial statements and supporting documents of an entity (p. 16).

Australian business number (ABN):

An eleven-digit number given to each business entity that has registered for the goods and services tax (GST) in Australia (p. 75).

Average collection period:

Number of days taken to collect amounts due from receivables for credit sales (p. 535).

Average cost:

An inventory costing method in which an average unit cost is calculated by dividing the total cost of goods available for sale by the total number of units available for sale. Moving average (perpetual inventory system) and weighted average (periodic inventory system) are variations of the average cost method (p. 564).

Bad debts expense:

The expense resulting when allowance is made for estimated uncollectable accounts (p. 524).

Balance sheet (statement of financial position):

A financial statement listing the assets, liabilities and equity of a business entity as at a specific date (p. 38).

Bank reconciliation statement:

A statement prepared to reconcile the balance reported on the bank statement with the bank balance as shown in the entity’s records (p. 484).

Bank statement:

A statement prepared by the bank that provides the detail of activity that has taken place in a current account for the period covered by the statement (p. 483).

Beginning inventory:

Goods or stock on hand at the beginning of an accounting period that are available for sale to customers in the normal course of business (p. 250).

Bill of exchange:

An unconditional order in writing, addressed by one person or entity to another, requiring the person or entity to whom it is addressed to pay a certain sum of money to a designated person or order on a determinable future date (p. 522).

Bill payable:

Obligation evidenced by a formal written promise or order to pay a certain amount on a set date (p. 684).

Bill receivable:

A receivable evidenced by a formal written promise or order to pay (p. 522).

Biological assets:

Living animals and plants (p. 652).

Bonus share issue:

An issue of shares to existing shareholders in the proportion of their current shareholdings at no cost to the shareholders (p. 393).

Book of original entry:
***See* Journal**.

Book value:
***See* Carrying amount**.

Borrowing costs:
Interest costs and other costs incurred in connection with the borrowing of funds (p. 604).

Budgeting:
Preparing a plan for the future operating activities of a business entity (p. 19).

Call:
An amount of money receivable on shares that have been allotted but not fully paid up (p. 385).

Capital budgeting:
The planning and financing of capital investments, such as replacement of equipment, expansion of production facilities, and introduction of new products (p. 621).

Carrying amount (book value):
The amount at which an asset is recorded in the accounts at a particular date. For a depreciable asset, carrying amount means the net amount after deducting accumulated depreciation from cost or revalued amount (pp. 139, 608, 638).

Cash:
Money and any negotiable instrument such as a cheque, postal note, credit card duplicate or electronic transfer that a bank will accept for immediate deposit in a bank account (p. 478), i.e. cash on hand and cash equivalents (p. 755).

Cash budget:
A projection of future cash receipts and cash payments over a period of time disclosing cash position at the end of that time (p. 493).

Cash discount:
An incentive offered to the buyer to induce early payment of a credit sale; also known as a settlement discount (p. 242).

Cash equivalents:
Short-term highly liquid investments that are readily convertible to cash at an entity’s option and that are subject to an insignificant risk of changes in value (p. 755).

Cash flow efficiency:
The efficiency with which the entity generates cash from its income, profits and assets (p. 846).

Cash-generating unit:
The smallest identifiable group of assets that generates cash inflows from continuing use, which are independent of cash inflows from other groups of assets (p. 643).

Cash payments journal:
A special journal used to record all cash payments by an entity (p. 299).

Cash receipts journal:
A special journal used to record transactions involving the receipt of cash by an entity (p. 295).

Cash sufficiency:
The adequacy of the cash flows to meet the entity’s cash needs for long-term debt payments, dividends, and acquisition of non-current assets (p. 846).

Certificate of registration:
The initial legal document registering a company (p. 383).

Certified practising accountant (CPA):
An accountant who has met the qualifications and experience requirements for membership of CPA Australia (p. 16).

Chart of accounts:
A schedule listing the titles of all accounts contained in the ledger together with an appropriate numbering

system for the accounts (p. 82).

Chartered accountant (CA):

An accountant who has met the qualifications and experience requirements for membership of the Institute of Chartered Accountants in Australia (p. 16).

Closing entries:

Journal entries made at the end of an accounting period to reduce income, expense and drawings accounts to a zero balance and transfer the net balance to the capital account in a sole trader or partnership business or, in the case of a company, to the retained earnings account (p. 185).

Collateral:

Something of value that is acceptable to a lender as security for a loan (p. 693).

Commercial bills:

Bills of exchange used in obtaining short-term finance; also known as accommodation bills (p. 685).

Common size statements:

Financial statements in which the amount of each item reported in the statement is stated as a percentage of some specific base amount also reported in the same statement (p. 835).

Company (or corporation):

A form of business structure incorporated to operate as a business entity under the ***Corporations Act 2001*** throughout Australia (p. 34).

Company limited by guarantee:

A public company whose members undertake to contribute a guaranteed amount if the company is wound up (p. 380).

Comparability:

The quality of financial information that enables users to discern and evaluate similarities and differences between transactions and events, at one time and over time, for one entity or a number of entities (pp. 46, 446).

Comparative statements:

Financial statements for the current year and previous years presented together to facilitate the analysis of changes in statement items (p. 834).

Composite-rate depreciation:

A depreciation method under which a single average depreciation rate is applied to the cost of a functional group of assets (p. 648).

Compound journal entry:

A journal entry involving three or more accounts (p. 88).

Concise report:

A summarised set of financial reports plus directors' and auditor's reports sent to shareholders as an alternative to the full annual financial report (p. 720).

Consignee:

An entity or individual holding goods on consignment; does not own the goods held (p. 559).

Consignment:

A marketing arrangement whereby merchandise is transferred from one entity (the consignor) to another (the consignee or agent) in order that the consignee may sell the goods on behalf of the consignor; however, title and control of the goods remain with the consignor (p. 559).

Consignor:

An individual or entity that ships goods on consignment. Title to the goods is retained by the consignor until the goods are sold by the consignee, at which time title passes to the purchaser (p. 559).

Consistency:

The notion that once a particular accounting policy or procedure is adopted, it should not be changed from period to period unless a different method provides more useful information (pp. 46, 447).

Constitution:

A document containing the rules for managing a company, particularly in terms of relationships and dealings between directors and shareholders, which are adopted by a company as an alternative to the replaceable rules in the ***Corporations Act 2001*** (p. 383).

Constructive obligation:

When the past practices of an entity, its published policies or a specific current statement indicate that it will accept responsibility for certain actions, so it becomes reasonable for others to assume the entity will fulfil those responsibilities (p. 679).

Contingent liability:

A possible liability arising from a past event that will become an actual liability by the occurrence or non-occurrence of one or more uncertain future events that are not completely within the control of the entity, or a liability that does not satisfy the recognition criteria (pp. 543, 681).

Contra account:

An account that is deducted from a related account (p. 138).

Control:

In relation to an asset, the capacity of an entity to receive future economic benefits in pursuing its objectives and to deny or regulate the access of others to those benefits (p. 449).

Control account:

A general ledger account that is supported by the detail of a subsidiary ledger (p. 289).

Copyright:

An exclusive right to reproduce and sell an artistic or published work (p. 656).

Corporation:

See **Company**.

Cost:

The amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction (p. 602).

Cost accounting:

The aspect of accounting that deals with the collection, allocation and control of the cost of producing a product or providing a service (p. 18).

Cost of sales:

An amount that is deducted from sales in the income statement and is a measure of the cost of the inventory sold during the accounting period (p. 237).

Coupon rate (nominal or stated rate):

The interest rate stated as a percentage of nominal value and used to determine the interest paid periodically to the debenture holder (p. 694).

Credit:

An amount entered on the right-hand side or in the credit column of an account (p. 77).

Credit card:

A plastic card that enables the holder to obtain credit up to a predetermined limit from the issuer of the card for the purchase of goods and services (p. 537).

Credit department:

The organisational unit responsible for the credit and collection policies of the business (p. 533).

Credit period:

The period of time granted for the payment of an account (p. 241).

Credit terms:

The agreement made between buyer and seller concerning the sale of goods on credit (p. 241).

Creditors:

People or business entities to whom debts are owed; alternatively, another name for the Accounts Payable account (pp. 39, 80).

Crossadding:
Adding or subtracting horizontally across a worksheet (p. 156).

Cumulative preference shares:
Preference shares on which undeclared dividends accumulate before any dividend can be paid to ordinary shares (p. 397).

Current assets:
Cash and other types of assets that are held mainly for sale, or are reasonably expected to be converted to cash, sold or consumed by a business entity within its operating cycle (if this is discernible) or are expected to be realised within 12 months after the end of the entity's reporting period (p. 151).

Current cost:
For an asset, the amount of cash or cash equivalents that would be paid if the same or equivalent asset was acquired currently (p. 458).

Current liabilities:
Obligations of the entity that are reasonably expected to be settled in the entity's normal operating cycle, or are held for the purpose of being traded, or are due to be settled within 12 months of the end of the reporting period (pp. 153, 683).

Current replacement cost:
The cost that an entity would incur to acquire an asset at the end of the reporting period (p. 573).

DDP:
A shipping term in which the seller is responsible for freight costs and title will not transfer to the buyer until the goods are delivered to the buyer (p. 559).

DDP (delivered duty paid):
A shipping/delivery term meaning the seller bears all the costs of delivering the goods to the buyer (p. 244).

Debentures (or bonds):
A liability representing a written promise to pay a principal amount at a specified time, as well as interest on the principal at a specified rate per period (p. 693).

Debit:
An amount entered on the left-hand side or in the debit column of an account (p. 77).

Debit card:
A plastic card used in the electronic funds transfer point of sale (EFTPOS) system, where funds are debited to the card user's account at the bank and transferred instantaneously to the credit of the account of the seller of the goods or services (p. 538).

Debtors:
People or business entities from whom debts are owed; alternatively, another name for the Accounts Receivable account (pp. 41, 80).

Decision:
The making of a choice between two or more alternatives (p. 5).

Defeasance:
An arrangement whereby the terms and conditions of a debt are avoided or defeated (p. 696).

Deferrals:
Assets that represent expenses paid in advance, and revenues received in advance that represent liabilities until the revenues can be recognised as earned (p. 133).

Depreciable amount:
The historical cost of a depreciable asset, or other revalued amount substituted for historical cost in the accounting records, less, in either case, the residual value (p. 607).

Depreciable asset:
A non-current asset having a limited useful life (p. 606).

Depreciation:
An allocation of a depreciable asset's depreciable amount to reflect the consumption or loss of its future

economic benefits through use, wear and tear, and obsolescence (pp. 138, 607).

Development:
The application of research knowledge to a plan or design for the production of new materials, products, processes, systems or services before commercial production (p. 654).

Diminishing-balance depreciation:
A depreciation method that results in a decreasing depreciation charge over the useful life of the asset, by applying a predetermined depreciation rate to the carrying amount of the asset (p. 609).

Direct write-off method:
The recognition of bad debts expense at the time an account receivable is deemed to be uncollectable (p. 530).

Disclosing entity:
An entity, which may or may not be incorporated, that has ‘enhanced disclosure’ securities (p. 719).

Discount (in relation to bills of exchange):
Interest deducted in advance, in practice at the effective interest rate or yield (pp. 542, 685).

Discount (on debentures):
The amount by which the issue price of a debenture is below the nominal value (p. 694).

Discount allowed:
An expense that results from cash discounts taken by customers on the sale of inventory (p. 242).

Discount period:
The period of time in which a cash discount may be subtracted from the invoice price before payment or receipt (p. 242); the period of time for which interest on a discounted bill is charged (p. 542).

Discount received:
Income that results from cash discounts taken by an entity on goods purchased for resale (p. 242).

Dishonoured bill:
A bill the drawer has failed to pay on its maturity date (p. 542).

Dishonoured cheques:
Cheques that are included in a customer’s deposit but are not paid by the drawer’s bank because of lack of sufficient funds or some other irregularity (p. 484).

Dividends:
Distributions of cash or other assets or a company’s own shares to its shareholders (pp. 211, 396, 456).

Dividends in arrears:
Dividends on cumulative preference shares that are not declared in the year in which they are due (p. 397).

Double-entry accounting:
The accounting system where every transaction affects two (or more) components of the accounting equation (p. 51).

Drawings:
The withdrawal of assets from the business entity by its owner(s) (p. 41).

Economic resources:
Resources that are scarce and that are traded in the marketplace at a price (p. 6).

Economic substance:
Accounting transactions and events are reported on the basis of economic reality rather than legal form (p. 46).

Effectiveness:
A measure of how well an entity attains its goals (p. 36).

Efficiency:
Maintaining a satisfactory relationship between an entity’s resource inputs and its outputs of products or services (p. 35).

Electronic spreadsheet:

A spreadsheet used to analyse business data and solve everyday business problems (p. 312).

Employee benefits:

All forms of consideration that employees accumulate as a result of rendering services to their employer; these considerations include wages and salaries (including all monetary and non-monetary fringe benefits), annual leave, sick leave, maternity leave, long-service leave, superannuation, and post-employment benefits (p. 686).

Ending inventory:

Goods or stock on hand at the end of an accounting period that are available for sale to customers in the ordinary course of the business (p. 250).

Entering or journalising:

The process of recording a transaction in the journal (p. 88).

Equity:

The residual interest in the assets of the entity after deducting all its liabilities (pp. 40, 451).

Expenses:

Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants (pp. 41, 82, 452).

Expenses to sales ratio:

A ratio that reflects the portion of each sales dollar needed to meet expenses (p. 263).

Expired cost:

The cost of an asset used up in producing revenue; an expense (p. 131).

External transactions:

Transactions involving parties outside the business entity (p. 74).

EXW:

A shipping term in which the buyer will incur the freight costs and title of ownership passes to the buyer when the goods leave the supplier’s warehouse (p. 559).

EXW (ex works):

A shipping/delivery term meaning freight costs incurred from the point of shipment are paid by the buyer (p. 244).

Factor:

A business or financial institution that buys accounts receivable for a fee, and then collects the cash from those accounts (the receivables) (p. 536).

Factoring:

The selling (purchase) of accounts receivable to (by) a factor business (p. 536).

Fair value:

The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (pp. 348, 459, 602, 638).

Faithful representation:

To be useful to the main user group in making resource allocation decisions, information must be a faithful representation of the real-world economic phenomena that it purports to represent. This requires information to be verifiable, neutral and complete (pp. 45, 445).

Finance expenses:

Expenses incurred in relation to the financing of the entity, collecting debts and running the credit department (p. 237).

Finance lease:

A lease that transfers substantially all the risks and rewards incidental to ownership of an asset. Title may or may not eventually be transferred (p. 605).

Financial accounting:

The area of accounting that provides information to external users to help them assess the entity’s financial performance, financial position, financing and investing activities, and solvency (p. 14).

Financial capital:

Capital is synonymous with the net assets or equity of the entity, measured either in terms of the actual number of calculated dollars by subtracting the total of liabilities from assets, or in terms of the purchasing power of the dollar amount recorded as equity. Profit exists only after the entity has maintained its capital, measured as either the dollar value of equity at the beginning of the period or the purchasing power of those dollars in the equity at the beginning of the period (p. 459).

Financial performance:

The ability of an entity to utilise its assets efficiently and effectively to generate cash flows in the conduct of its activities, whether for profit or not for profit (pp. 37, 443).

Financial position:

The economic condition of a reporting entity, with regard to its control over economic resources, financial structure, capacity for adaptation, and solvency (pp. 37, 443).

Financial stability:

An entity's ability to continue operating in the future and to satisfy its long-term cash obligations (p. 843).

Financial stability ratios:

Ratios used to analyse the ability of an entity to continue operations in the long term and to satisfy long-term commitments while having sufficient working capital (p. 701).

Financing activities:

Activities relating to the raising of funds for an entity to carry out its operating and investing activities, i.e. equity and borrowings that are not part of the definition of cash (pp. 38, 757).

First-in, first-out (FIFO):

A cost flow assumption in inventory costing that assumes the first units purchased were the first units sold. The cost of ending inventory is assumed to be the cost of the most recently purchased units (p. 562).

Franchise:

A right granted by a company or government body to conduct a franchised business at a specified location or in a specific geographical area (p. 657).

Freight inwards (transportation-in):

A cost incurred by the buyer in transporting inventory purchases (p. 246). ***See also*** **EXW (ex works)**.

Freight outwards:

Transport (delivery) expense incurred by the seller to deliver goods to customers (p. 244). ***See also*** **DDP (delivered duty paid)**.

Gains:

Income that does not necessarily arise from the ordinary activities of the entity (pp. 82, 452).

Gearing (leverage):

The use of borrowed funds to earn a return greater than interest or dividends paid to creditors and preference shareholders respectively (pp. 698, 837).

General journal (two-column journal):

A record book containing a chronological listing of transactions (p. 88).

General ledger:

A collection of accounts maintained by an entity to enable the preparation of that entity's financial statements (p. 77).

General ledger software:

Computerised accounting systems consisting of modular programs covering each of the major funtional areas of accounting (p. 312).

General partnership:

Where each partner is individually liable for the partnership liabilities (p. 345).

General purpose financial reports:

Financial reports intended to meet the information needs of a range of users who are unable to command the preparation of reports tailored to satisfy, specifically, all of their information needs (p. 442).

General purpose financial statements:

Financial statements that are intended to meet the needs of users who are not in a position to require an entity to prepare reports tailored to their particular information needs (p. 11).

Going concern assumption (continuity):

The assumption that a business will continue to operate in the future unless there is evidence to the contrary (p. 45).

Goodwill:

Future benefits from unidentifiable assets (pp. 349, 657).

Grants related to assets:

Government grants to an entity to purchase, construct or otherwise acquire long-term assets (p. 456).

Grants related to income:

Government grants to an entity other than those related to assets (p. 456).

Gross pay (gross earnings):

The total amount of an employee's wages or salary before any payroll deductions (p. 687).

Gross profit method:

A method used to estimate ending inventory value based on the assumption that the gross profit percentage is approximately the same from period to period (p. 580).

Gross profit (or gross margin) on sales:

Net sales less cost of sales (p. 237).

Gross profit ratio:

A ratio that represents the portion of sales reflected in gross profit (p. 262).

GST Payable:

The account recording the GST received or receivable by a GST-registered entity from its customers and clients (p. 81).

GST Receivable:

The account recording the GST paid or payable by a GST-registered entity to its suppliers (p. 81).

Historical cost:

An asset is recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire it at its acquisition date (p. 458).

Horizontal analysis:

That part of an analysis based on the comparison of amounts reported for the same item in two or more comparative statements with an emphasis on the change from year to year (p. 834).

Identifiable assets:

Those assets that are capable of being both individually identified and specifically brought to account (p. 653).

Impairment loss:

As applied to an individual asset, the situation where the asset's recoverable amount is less than its carrying amount. As applied to a cash-generating unit, the situation where the fair value of the group of assets as a whole is less than the carrying amount of that group (p. 643).

Imprest system:

A system of petty cash fund operation where a fixed amount of cash can always be accounted for by a count of cash plus the value of expenditure vouchers issued (p. 492).

Income:

Increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants; includes revenues and gains (pp. 41, 82, 451).

Income statement (or profit or loss statement or operating statement):

A financial statement listing the income, expenses and profit/operating surplus or loss/deficit of an entity for a certain time period (p. 40).

Insolvent:

Unable to pay debts as they fall due (p. 18).

Intangible assets:

Identifiable non-monetary assets that usually do not have a physical existence and derive value from the rights that possession confers on their holders (pp. 153, 653).

Interest (in relation to bills of exchange):

A charge made for the use of money, calculated as Principal × Rate × Time (p. 540).

Interim financial report:

A set of half-yearly statements, including an income statement/statement of profit or loss and other comprehensive income, a statement of financial position/balance sheet, a statement of cash flows and selected explanatory notes, to be prepared by a disclosing entity (p. 721).

Interim statements:

Financial statements prepared between the annual reports, usually half-yearly or quarterly (pp. 77, 186).

Internal audit:

The ongoing investigation of compliance with established procedures and policies of an entity by its internal audit staff (p. 19).

Internal control system:

The overall procedures adopted by a business to safeguard its assets, promote the reliability of accounting data, and encourage compliance with management policies (p. 285).

Internal transactions:

Business activities in which only the single business entity participates, such as the use of supplies by an employee (p. 74).

Inventory:

An asset that is:

(a) held for sale in the ordinary course of business;
(b) in the process of production for such sale; or
(c) in the form of materials or supplies to be consumed in the production process or in the rendering of services (pp. 236, 558).

Inventory turnover:

A ratio that indicates the number of times average inventory has been sold during a period (p. 263).

Investing activities:

Activities associated with the acquisition and sale of an entity’s non-current assets (p. 38), and with the purchasing and selling of investments (e.g. shares) that are not part of the definition of cash (p. 757).

Investments:

Assets held for investment purposes rather than for use in the normal activities of the entity (p. 152).

Journal (book of original entry):

A record in which transactions are initially recorded (p. 88).

Journal entry:

The format in which a transaction is entered in the general journal (p. 88).

Last-in, first-out (LIFO):

A cost flow assumption in inventory costing that assumes the most recent units purchased were the first units sold. The cost of ending inventory is assumed to be the cost of the earliest units purchased (p. 563).

Lease:

A rental agreement in which the lessee obtains from the lessor the right to use property for a stated period of time (p. 697).

Leasehold improvements:

Permanent improvements to leased property made by the lessee (p. 616).

Legal obligation:

Obligation evidenced by formal documentation such as a contract, legislation or other operations of the law that establish a present obligation (p. 679).

Lessee:

The entity which has leased an asset from the lessor (p. 605).

Lessor:

The entity which has leased an asset to the lessee (p. 605).

Liabilities:

Present obligations of an entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits (pp. 39, 450, 678).

Limited company:

A company whose members are liable only to the extent of the amount of issue price unpaid on their shares, or to the extent of a guaranteed amount (p. 378).

Limited liability:

In a company, shareholders are liable to contribute to the assets of a company only to the extent of amounts unpaid on their shares (p. 34).

Limited partnership:

Where one or more of the partners have limited their liability for partnership debts to the amount of their investment. However, at all times at least one partner must have unlimited liability (p. 345).

Liquidation:

The process of winding up the affairs of a company so that it ceases to exist (p. 18).

Liquidity (solvency):

The ability of an entity to satisfy its short-term financial obligations; also refers to the average length of time it takes to convert a non-cash asset into cash (pp. 150, 831).

Liquidity ratios:

Ratios that provide a measure of an entity's ability to pay its short-term obligations, and meet unexpected demands on cash resources (p. 700).

Long-service leave:

Paid leave granted to employees who have remained with the same employer over an extended period of time (p. 690).

Loss:

The excess of expenses over total income (revenues and gains) (pp. 41, 82).

Lower of cost and net realisable value:

Inventory valuation method where inventory is valued at lower of original cost and net realisable value at the end of the reporting period (p. 572).

Lump-sum acquisition:

The purchase of a group of assets for one total payment (p. 604).

Management accounting:

The area of accounting that provides information to management for planning, controlling and decision making (p. 14).

Management by exception:

The concentration only on performance results that deviate significantly from those planned (p. 36).

Management functions:

The planning, organising, directing and controlling required to manage an organisation (p. 36).

Mark-down cancellation:

Reversal of a mark-down whereby inventory not sold at a sales promotion reverts to its normal retail price (p. 580).

Mark-downs:

Price reductions to promote sales (p. 580).

Mark-up cancellations:

Reversal of mark-ups. A downward revision on retail prices because of lack of demand or an excessive mark-up (p. 580).

Materiality:

The extent to which information can be omitted, misstated or grouped with other information without misleading the users of that information when they are making their economic decisions (pp. 47, 445).

Maturity date:

The date on which a bill or debenture is due for payment (pp. 540, 694).

Maturity value:

The amount of a bill due on its maturity date; it includes principal as well as interest (p. 540).

Member (MIPA):

A member of the Institute of Public Accountants (MIPA) (p. 16).

Mortgage:

A legal document setting forth the specific assets serving as collateral for a loan (p. 696).

Mortgage debenture:

A debenture in which land held by the company is mortgaged as security for the debenture (p. 694).

Mortgage payable:

A liability in which specific property of the borrower serves as collateral for a loan (p. 693).

Moving average:

An inventory costing method by which an average unit cost is calculated after each purchase. The method applies only where a perpetual inventory system is being used (p. 569).

Mutual agency:

A characteristic whereby each partner is an agent for the partnership and can bind the partnership to a contract if acting within the normal scope of the business (p. 345).

Net assets:

Total assets minus total liabilities (as in the narrative form of the balance sheet/statement of financial position) (p. 39).

Net fair value:

Fair value less estimated point-of-sale costs (p. 653).

Net pay (net earnings):

Gross pay of an employee less deductions (p. 687).

Net realisable value:

The market value based on estimated proceeds of sales less, where applicable, GST and all further costs of production, marketing, selling and distribution to customers (p. 572).

No-liability company:

A company, being a mining company, that does not have the right to require shareholders to pay calls to the company (p. 380).

Nominal value (face value, principal):

The amount due to a lender when a debt under debentures or unsecured notes matures (p. 694).

Non-cumulative preference shares:

Preference shares on which the right to receive dividends is lost in any year in which dividends are not declared (p. 398).

Non-current liabilities:

Obligations of the entity that do not require payment within the operating cycle or within 12 months of the end of the reporting period (pp. 153, 683).

Non-reciprocal transfer:

A transfer of assets in which the entity receives assets or services without giving approximately equal value in exchange for the assets or services received (p. 456).

Normal account balance:

The side or column of the account on which increases are recorded (p. 87).

Obligating event:

An event that results in an entity having no realistic alternative to settling the obligation (p. 681).

Onerous contract:

A contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it (p. 690).

Operating activities:

Activities associated with the provision of an entity's goods or services, and other activities that are neither financing nor investing activities (pp. 37, 756).

Operating cycle:

The average period of time it takes for an entity to purchase or manufacture inventory or perform services, and then receive cash from the sale (p. 152).

Operating lease:

A lease other than a finance lease (p. 605).

Operating statement:

***See* Income statement**.

Ordinary shares:

A class of share that has no preferences relative to other classes (p. 394).

Organisation:

A group of people who share common goals with a well-defined division of labour (p. 35).

Other comprehensive income:

Items of income and expense that are not recognised in profit or loss because of the requirements of other standards (p. 639).

Participating preference shares:

Preference shares that have the right to receive further dividends above their fixed rate after ordinary shares have received dividends up to a stated percentage for the period (p. 398).

Partnership:

A form of business structure under which a business entity is owned by two or more people as partners sharing profits and losses (pp. 34, 344).

Partnership agreement:

The contract or agreement made among the partners to form and operate a partnership (p. 346).

Patent:

An exclusive right to produce and sell a particular product or process for a period of 20 years (p. 655).

Percentage-of-completion method:

A method of accounting for service contracts and long-term construction contracts under which revenue is recognised in proportion to the services or work completed during the period (p. 454).

Percentage of net credit sales:

A method used to determine the amount of the allowance for doubtful debts (p. 526).

Period assumption:

The assumption that the economic life of an entity can be divided into arbitrary equal time intervals for reporting purposes (p. 45).

Periodic inventory system:

A system of accounting for inventory in which the goods on hand are determined by a physical count and the cost of sales is equal to the beginning inventory plus net purchases less ending inventory (pp. 250, 558).

Permanent (real) accounts:

Accounts reported in the balance sheet/statement of financial position (p. 132).

Perpetual inventory system:

A system of accounting for inventory that provides a continuous and detailed record of the goods on hand and the cost of sales (pp. 244, 558).

Petty cash fund:

A specified amount of cash placed under the control of an employee (petty cashier) for use in making small cash payments (p. 490).

Petty cash voucher or receipt:

A form used as a receipt for payments from a petty cash fund (p. 491).

Physical capital:

Capital is seen as the operating capability of the entity's assets. Profit exists only after the entity has set aside enough capital to maintain the operating capability of its assets (p. 459).

Physical inventory count (stocktake):

The process of counting and pricing the goods on hand (p. 250).

Post-closing trial balance:

A trial balance taken after the adjusting and closing entries have been posted to the accounts and the permanent accounts balanced (p. 204).

Posting:

The process of transferring information recorded in a journal to the individual accounts in the ledger (p. 89).

Preference shares:

Shares that receive preferential treatment over ordinary shares such as a preference in dividend distributions, and/or a preference in asset distributions if the company is wound up (depending on the constitution) (p. 394).

Preliminary expenses (or start-up costs):

The expenditures made to form a company. They include incorporation fees, legal fees, and promoters' and underwriters' fees (p. 394).

Premium (on debentures):

The price in excess of nominal value on issue of debentures (p. 694).

Present value:

The single value at the present time of cash flows expected to be received or paid in the future that have been discounted at an appropriate rate (p. 687).

Principal:

The base figure (face amount) of an amount owing (a bill) (p. 540).

Proceeds:

The maturity value of a bill less discount (p. 542).

Profit:

When total income (revenues and gains) exceeds total expenses (pp. 41, 82).

Profit or loss statement:

See **Income statement**.

Profit margin:

A ratio that represents the portion of sales that ends up as profit (p. 262).

Promissory note:

An unconditional written promise to pay a sum certain in money on demand or at a future determinable date (p. 522).

Property, plant and equipment:

Resources of the entity that are physical in nature, have a relatively long useful life, and are used in the activities of the entity (p. 153).

Proprietary company:

A company having a share capital in which the right to transfer shares is restricted as is the right to raise capital from the public (p. 379).

Prospectus:

A legal document representing an approach by a company to raise funds in order to carry on business (p. 383).

Provisions:

Liabilities of uncertain timing or amount (p. 680).

Public accountability:

Accountability to those existing and potential resource providers and others external to the entity who make economic decisions but are not in a position to demand reports tailored to meet their particular information needs (pp. 440, 719).

Public company:

A company entitled to raise capital from the public and to have its shares listed on a securities exchange (p. 379).

Purchases:

An account used in a periodic inventory system to record the cost of goods acquired for resale to customers (p. 251).

Purchases journal:

A special journal used to record all purchases of inventory on credit (p. 293).

Purchases returns and allowances:

An account used in the periodic inventory system to record the return by an entity of inventory or adjustments made to the purchase price (p. 252).

Qualifying asset:

An asset that necessarily takes a substantial period of time (i.e. usually longer than 1 year) to get ready for its intended use or sale (pp. 604, 724).

Ratio:

Division of the amount reported for one financial statement item by the amount reported for another. Ratio analysis is the evaluation of the relationship indicated by this division (p. 835).

Realisable value:

The amount of cash or cash equivalents that could be obtained currently by selling the asset in an orderly disposal or in the normal course of business (p. 459).

Receivables turnover ratio:

A ratio that measures the number of times average receivables are converted into cash during a period (p. 534).

Recognition:

The process of incorporating in the statement of financial position/balance sheet or income statement an item that meets the definition of an element (p. 452).

Recoverable amount:

The higher of an asset's net selling price and its value in use (p. 643).

Redemption by sinking fund:

The redemption of long-term debt by way of establishing a fund that will be used to pay the debt's obligations on maturity (p. 696).

Reduced Disclosure Requirements:

A reduced disclosure regime introduced as a result of AASB 1053 ***Application of Tiers of Australian Accounting Standards*** (p. 719).

Relevance:

A quality of financial information that influences economic decisions by helping users to form predictions, to confirm or correct past evaluations and to assess the rendering of accountability by preparers (pp. 45, 444).

Replaceable rules:

Rules contained in the Corporations Act 2001 relating to dealings between management and shareholders. If the company wishes to reject such rules, it must adopt a constitution (p. 383).

Reporting entity:

Any entity where it is reasonable to expect the existence of users depending on general purpose financial reports for information used in economic decision making (p. 439).

Research:

An original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding (p. 654).

Reserves:

Items of equity other than capital contributed by owners (p. 400).

Residual value:

The estimated amount that an entity could currently obtain from disposal of an asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life (p. 608).

Retail inventory method:

A method used to estimate the ending inventory value based on the relationship of cost to retail prices (excluding GST) (p. 578).

Retained earnings:

The accumulated profits of a company that have been retained in the company rather than distributed to shareholders as dividends (pp. 211, 385).

Revaluation decrease:

The amount by which the fair value of a non-current asset within a class at revaluation date is less than the asset’s carrying amount (p. 638).

Revaluation increase:

The amount by which the fair value of a non-current asset within a class at revaluation date exceeds the asset’s carrying amount (p. 638).

Revenue:

The gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants (pp. 82, 452).

Reversing entries:

Entries made to reverse the effects of certain adjusting entries (p. 206).

Rights issue:

An issue of new shares giving existing shareholders the right to an additional number of shares in proportion to their current shareholdings (p. 393).

Royalties:

Rights of composers and authors to receive payments from publishing companies for the sale of their music or books. Also money received by the owner of land from a mining company that has been given the right to mine mineral reserves on the owner’s land (p. 455).

Running balance account:

An account format that enables the balance of the account to be calculated after each transaction affecting that account (p. 78).

Salary:

Remuneration on a weekly, fortnightly or monthly basis paid to an employee, usually a fixed amount regardless of hours worked (p. 687).

Sales:

Income (revenue) of a retail business represented by the sales price of goods sold (p. 237).

Sales journal:

A special journal used to record all sales of inventory on credit (p. 291).

Sales returns and allowances:

The selling price of inventory returned by customers or adjustments made to the sales price (p. 241).

Selling and distribution expenses:
Expenses that result from efforts to store, sell and deliver goods to customers (p. 237).

Share capital:
The amount of cash or other assets invested in the company by its shareholders (or members) (pp. 211, 385).

Share dividends:
A pro rata distribution of a company's own shares to its shareholders (p. 398).

Share issue costs:
The costs directly associated with the issue of shares, including stamp duty, broker's fees, underwriter's fees, professional adviser's fees and printing costs (p. 394).

Share split:
A decrease in the issue price of shares with a proportionate increase in the number of shares (p. 400).

Shareholders:
Persons or entities owning shares in a company (p. 34).

Single proprietorship (sole trader):
A form of business structure in which the business entity is owned by an individual (p. 34).

Slide:
An error in which the decimal point is shifted to the left or right (p. 107).

Solvency:
The ability of an entity to pay its debts as and when they fall due (p. 497).

Source document:
A paper, form or computer record that provides evidence that a transaction has occurred (p. 75).

Special journal:
Book of original entry used for such repetitive transactions as sales, purchases, cash receipts and cash payments (p. 291).

Special purpose financial statements:
Reports prepared for users who have specialised needs and who possess the authority to obtain information to meet those needs (p. 10).

Specific identification:
An inventory costing method by which the cost of a specific item sold can be separately identified from the cost of other units held in the inventory (p. 562).

Start-up costs:
See **Preliminary expenses**.

Statement of cash flows:
A financial statement that reports the cash flows in and out of an entity. The cash flows are classified into operating, investing and financing activities (p. 42).

Statement of changes in partners' equity:
A financial statement that shows the changes in each partner's equity interest during the period (p. 358).

Statement of financial position:
See **Balance sheet**.

Stocktake:
See **Physical inventory count**.

Straight-line depreciation:
A depreciation method that allocates an equal amount of an asset's depreciable amount to each period in its useful life (p. 608).

Subsidiary ledger:
A group of individual accounts, the total of all balances of which should equal the balance of a related control account in the general ledger (p. 289).

Sum-of-years-digits depreciation:

A depreciation method under which the depreciable amount of an asset is allocated to depreciation on a fractional basis. The denominators of the fractions are the sum of the digits in the asset's useful life. The numerators of the fractions are the years remaining in the asset's useful life at the beginning of the period (p. 610).

Systems analysis:

The initial stage in the development of an accounting system through which an understanding of a business's information requirements and sources of information is provided (p. 283).

Systems design:

The second stage in the development of an accounting system through which the specific means to be used for input, processing and output are determined (p. 283).

Systems implementation and review:

The final stage in the development of an accounting system through which the system is made operational (p. 283).

T account:

An account format shaped like the letter T, in which the left-hand side of the account is the debit side and the right-hand side is the credit side (p. 77).

Taxable income:

The amount of profit as determined by the Australian Taxation Office on which the current income tax liability is calculated (p. 402).

Tax invoice:

A source document issued by a GST-registered business evidencing the sale of a taxable supply, and that complies with GST legislative requirements (p. 238).

Tax payable method:

An accounting method whereby income tax expense is calculated as the tax rate times taxable income (p. 402).

Temporary (nominal) accounts:

Accounts (income, expense and drawings accounts) that are reduced to a zero balance at the end of an accounting period (p. 132).

Term loan:

A borrowing from a bank, life insurance company, and other financial institutions for periods of 1 to 10 years, usually at a fixed interest rate (p. 692).

Timeliness:

Information must be available to decision makers before it loses its capacity to influence decisions, i.e. before the information loses its relevance (pp. 46, 447).

Total comprehensive income:

The change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners (p. 723).

Trade creditors:

Another name for the Accounts Payable account (pp. 80, 684).

Trade debtors:

Another name for the Accounts Receivable account (pp. 80, 522).

Trade discount:

A reduction in the suggested list price granted to certain customers. Trade discount is not recorded in the accounts but appears as a deduction from the list price shown on the invoice (p. 243).

Transactions:

The events that are identified as making up the economic activities of an entity (p. 8).

Transportation-in:

***See* Freight inwards**.

Transposition:

An error in which the order of the digits of a number is altered (p. 107).

Trial balance:

A statement listing all the accounts in the general ledger and their debit or credit balances. A trial balance is prepared to verify the equality of debits and credits made to the accounts (p. 105).

Trust deed:

A document setting down the terms of a debenture agreement and the appointment of a trustee (p. 693).

Trustee:

A third party appointed to represent debenture holders (p. 694).

Two-column journal:

***See* General journal**.

Uncalled capital:

The amount of issued share capital that has not yet been called by the company (p. 385).

Understandability:

Does not necessarily mean simplicity. It is assumed that readers of reports have a reasonable knowledge of business and economic activities and accounting, and that they are willing to study the information with reasonable diligence (pp. 47, 448).

Underwriter:

Takes up any shares that are undersubscribed in a share issue; is paid an underwriting fee regardless of whether the issue is fully subscribed or oversubscribed (p. 391).

Unexpired cost:

A cost that has not been used to produce revenue and has future economic benefits to the entity; unexpired costs are initially recorded as assets (p. 131).

Units-of-production depreciation:

A depreciation method under which the depreciable amount of an asset is allocated to depreciation expense based on the number of production units produced during the period (p. 611).

Unlimited company:

A company in which shareholders are fully liable for all debts of the company (p. 380).

Unlimited liability:

A characteristic of a partnership whereby each general partner is responsible for all debts of the partnership from personal assets if necessary (p. 345).

Unpresented cheques or outstanding cheques:

Cheques written by a depositor that have not been presented to the bank for payment (p. 486).

Unsecured note:

A borrowing with no security against the general assets of the borrower (p. 694).

Useful life:

The estimated time period over which the future economic benefits embodied in a depreciable asset are expected to be consumed by the entity; or the estimated total service, expressed in terms of production or similar units, that is expected to be obtained from the asset by the entity (pp. 138, 607).

Value in use:

The present value of future net cash flows expected from the continuing use of an asset and from its disposal at the end of its useful life (p. 643).

Verifiability:

That quality of information whereby different independent observers would reach general agreement that a particular piece of information represents the economic phenomena that it purports to represent without material error or bias, or that the measurement method used has been applied without material error or bias (pp. 46, 447).

Vertical analysis:

That part of an analysis in which the focus of the study is on the proportion of individual items expressed as a percentage of some specific item reported in the same statement (p. 835). ***See also*** **Common size statement**.

Wages:

Remuneration calculated on an hourly rate paid to an employee (p. 687).

Weighted average:

An inventory costing method by which an average cost per unit is calculated by dividing the total cost of units available for sale by the total number of units available for sale. It is used in the periodic inventory system (p. 564).

Workers compensation:

An insurance scheme imposed by law whereby the employer purchases insurance that may be used to compensate employees for job-related injuries and consequential loss of wages through loss of work (p. 689).

Working capital:

The excess of current assets over current liabilities (p. 150).

Worksheet:

A spreadsheet, prepared either manually or electronically, used by accountants to gather and organise information to enable preparation of the financial statements, and/or for use in the adjusting and closing processes of the accounting cycle (p. 154).

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