CHAPTER ONE

Overview of Public Budget

Chapter objectives

At the end of this chapter the students will be able to:

* Define: budgeting
* Describe the purpose of budgeting
* List and describe theories of public expenditure

**Introduction**

Time and money are scarce resources to all individuals and organizations; the efficient and effective use of these resources requires planning. Planning alone, however, is insufficient. Control is also necessary to ensure that plans actually are carried out. A **budget** is a tool that managers use to plan and control the use of scarce resources. A budget is a plan showing the company’s objectives and how management intends to acquire and use resources to attain those objectives. Companies, nonprofit organizations, and governmental units use many different types of budgets. Responsibility budgets are designed to judge the performance of an individual segment or manager.

**1.1. Public budgeting and its purpose**

* Definitions of Budget
	+ Financial plan of expenses & revenue used for **planning** & **control** purposes
	+ Developed using goals, objectives and **priorities**
	+ Accrual AA
		- Expense or revenue that increases with the passage of time
			* Accrual-based accounting
				+ Income posted when earned
				+ Expenses posted when they occur
			* Cash-based accounting
				+ Expense recognized when money actually spent
				+ Income credited when it is received
* Capital expense
	+ Investment that is useful for more than one accounting period
	+ Depreciation
* Direct expense
	+ Expenses which are completely related to core business operations
	+ Controlled by the program director

A budget: (1) shows management’s operating plans for the coming periods; (2) formalizes management’s plans in quantitative terms; (3) forces all levels of management to think ahead, anticipate results, and take action to remedy possible poor results; and (4) may motivate individuals to strive to achieve stated goals.

Companies can use budget-to-actual comparisons to evaluate individual performance. For instance, the standard variable cost of producing a personal computer at IBM is a budget figure. This figure can be compared with the actual cost of producing personal computers to help evaluate the performance of the personal computer production managers and employees who produce personal computers.

* + 1. **Purpose of the Budget**
* Planning Tool
* Monitoring Tool
* Evaluation Tool
* Control Tool
* Quality Improvement Tool

Monitoring Tool = Accountability; provides a way for performance to be measured against projections.

Evaluation tool – evaluate how program is doing overall, may need to increase allocation expense in one area or add new expense based on program performance. For example, to improve board scores, our program purchased test bank questions so students could practice timed exams to practice for boards.

Control tool - provides an action plan to ensure that the organization's actual activities are least deviated from the planned activities.

Quality Improvement Tool – how to improve program overall 🡪 allocate expense towards Standardized Patient Encounters

Many other benefits result from the preparation and use of budgets. For example: (1) businesses can better coordinate their activities; (2) managers become aware of other managers’ plans; (3) employees become more cost conscious and try to conserve resources; (4) the company reviews its organization plan and changes it when necessary; and (5) managers foster a vision that otherwise might not be developed.

The planning process that results in a formal budget provides an opportunity for various levels of management to think through and commit future plans to writing. In addition, a properly prepared budget allows management to follow the management-by-exception principle by devoting attention to results that deviate significantly from planned levels. For all these reasons, a budget must clearly reflect the expected results.

Failing to budget because of the uncertainty of the future is a poor excuse for not budgeting. In fact, the less stable the conditions, the more necessary and desirable is budgeting, although the process becomes more difficult. Obviously, stable operating conditions permit greater reliance on past experience as a basis for budgeting. Remember, however, that budgets involve more than a company’s past results. Budgets also consider a company’s future plans and express expected activities. As a result, budgeted performance is more useful than past performance as a basis for judging actual results.

A budget should describe management’s assumptions relating to: (1) the state of the economy over the planning horizon; (2) plans for adding, deleting, or changing product lines; (3) the nature of the industry’s competition; and (4) the effects of existing or possible government regulations. If these assumptions change during the budget period, management should analyze the effects of the changes and include this in an evaluation of performance based on actual results.

Budgets are quantitative plans for the future. However, they are based mainly on past experience adjusted for future expectations. Thus, accounting data related to the past play an important part in budget preparation. The accounting system and the budget are closely related. The details of the budget must agree with the company’s ledger accounts. In turn, the accounts must be designed to provide the appropriate information for preparing the budget, financial statements, and interim financial reports to facilitate operational control.

**Budgeting** involves the coordination of financial and nonfinancial planning to satisfy organizational goals and objectives. No foolproof method exists for preparing an effective budget. However, budget makers should carefully consider the conditions that follow:

* **Top management support** All management levels must be aware of the budget’s importance to the company and must know that the budget has top management’s support. Top management, then, must clearly state long-range goals and broad objectives. These goals and objectives must be communicated throughout the organization. Long-range goals include the expected quality of products or services, growth rates in sales and earnings, and percentage-of-market targets. Overemphasis on the mechanics of the budgeting process should be avoided.
* **Participation in goal setting** Management uses budgets to show how it intends to acquire and use resources to achieve the company’s long-range goals. Employees are more likely to strive toward organizational goals if they participate in setting them and in preparing budgets. Often, employees have significant information that could help in preparing a meaningful budget. Also, employees may be motivated to perform their own functions within budget constraints if they are committed to achieving organizational goals.
* **Communicating results** People should be promptly and clearly informed of their progress. Effective communication implies (1) timeliness, (2) reasonable accuracy, and (3) improved understanding. Managers should effectively communicate results so employees can make any necessary adjustments in their performance.
* **Flexibility** If significant basic assumptions underlying the budget change during the year, the planned operating budget should be restated. For control purposes, after the actual level of operations is known, the actual revenues and expenses can be compared to expected performance at that level of operations.
* **Follow-up** Budget follow-up and data feedback are part of the control aspect of budgetary control. Since the budgets are dealing with projections and estimates for future operating results and financial positions, managers must continuously check their budgets and correct them if necessary. Often management uses performance reports as a follow-up tool to compare actual results with budgeted results.
	1. **Theories on Public Expenditure**

**Public expenditure** is spending made by the [**government**](https://en.wikipedia.org/wiki/Government) of a country on collective needs and wants such as [pension](https://en.wikipedia.org/wiki/Pension), provision, [infrastructure](https://en.wikipedia.org/wiki/Infrastructure), etc. Until the 19th century, public expenditure was limited as laissez faire philosophies believed that money left in private hands could bring better returns. In the 20th century, [John Maynard Keynes](https://en.wikipedia.org/wiki/John_Maynard_Keynes) argued the role of public expenditure in determining levels of [income](https://en.wikipedia.org/wiki/Income) and distribution in the [economy](https://en.wikipedia.org/wiki/Economy). Since then government expenditures has shown an increasing trend.

In the 17th and the 18th centuries public expenditure was considered as a wastage of money. Thinkers said government should stay with their traditional functions of spending on defense and maintaining law and order.

Several **theories of taxation** exist in [public economics](https://en.wikipedia.org/wiki/Public_economics). Governments at all levels (national, regional and local) need to raise revenue from a variety of sources to finance public-sector expenditures. The details of [taxation](https://en.wikipedia.org/wiki/Tax) are guided by two principles: [who will benefit](https://en.wikipedia.org/wiki/Benefit_principle), and who can pay. Public expenditure means the expenditure on the developmental and non-developmental activity such as construction of roadways and dams, and other activity.

## Causes of growth of public expenditure

There are several factors that have led to enormous increase in public expenditure through the years

1) **Defense expenditure** due to modernization of defense equipment by navy, army and air force to prepare the country for war or for prevention causes-for-growth-of-public-expenditure.

2) **Population growth** – It increases with the increase in [population](https://en.wikipedia.org/wiki/Population), more of [investment](https://en.wikipedia.org/wiki/Investment) is required to be done by [government](https://en.wikipedia.org/wiki/Government) on law and order, [education](https://en.wikipedia.org/wiki/Education), [infrastructure](https://en.wikipedia.org/wiki/Infrastructure), etc. investment in different fields depending on the different age group is required.

3) **Welfare activities** – welfare, mid-day meals, pension provisions etc.

* **Provision of public and utility services** – provision of basic public goods given by government (their maintenance and installation) such as transportation.
* **Accelerating economic growth** – in order to raise the standard of living of the people.
* **Price rise** – higher price level compels government to spend increased amount on purchase of goods and services.[[6]](https://en.wikipedia.org/wiki/Public_expenditure#cite_note-6)
* **Increase in public revenue** – with rise in public revenue government is bound to increase the public expenditure.
* **International obligation** – maintenance of socio-economic obligation, cultural exchange etc. (these are indirect expenses of government)

4) **Wars and social crises** – fighting amongst people and communities, and prolonged drought or unemployment, earthquake, hurricanes or tornadoes may lead to increase in public expenditure of a country. This is because it will involve governments to re-plan and allocate resources to finance the reconstruction.

5) **Creation of super national organizations** – E.g., the United Nations, NATO, European community and other multinational organizations that are responsible for the provision of public goods and services on an international basis, have to be financed out of funds subscribed by member states, thereby adding to their public expenditure.

6) **Foreign aid** – Acceptance by the richer industrialized countries of their responsibility to help the poor developing countries has channeled some of the increased public expenditure of the donor country into foreign aid programs.

7) I**nflation** – This is the general rise in price level of goods and services. It increases the cost of all activities of the public sector and thus a major factor in growth in money terms of public expenditure.

Some arguments of the Economists on public expenditure

**1.2.1 Wagner’s Law**

Wagner’s Law is named after the German political economist Adolph Wagner (1835-1917), who developed a “law of increasing state activity” after empirical analysis on Western Europe at the end of the 19th century. He argued that government growth is a function of increased industrialization and economic development. Wagner stated that during the industrialization process, as the real income per capita of a nation increases, the share of public expenditures in total expenditures increases. The law cited that “The advent of modern industrial society will result in increasing political pressure for social progress and increased allowance for social consideration by industry.”

Wagner (1893) designed three focal bases for the increased in state expenditure. Firstly, during industrialization process, public sector activity will replace private sector activity. State functions like administrative and protective functions will increase. Secondly, governments needed to provide cultural and welfare services like education, public health, old age pension or retirement insurance, food subsidy, natural disaster aid, environmental protection programs and other welfare functions. Thirdly, increased industrialization will bring out technological change and large firms that tend to monopolize. Governments will have to offset these effects by providing social and merit goods through budgetary means.

**1.2.2 Peacock and Wiseman Theory of public expenditure**

In 1961, Peacock and Wiseman elicited salient shaft of light about the nature of increase in public expenditure based on their study of public expenditure in England. Peacock and Wiseman (1967) suggested that the growth in public expenditure does not occur in the same way that Wagner theorized. Peacock and Wiseman choose the political propositions instead of the organic state where it is deemed that government like to spend money, people do not like increasing taxation and the population voting for ever-increasing social services.

Peacock and Wiseman viewed the period of displacement as reducing barriers that protect local autonomy and increasing the concentration power over public expenditure to the Central government. During the process of public expenditure centralization, the role of state activities tends to grew larger and larger. This can be referred to the concentration process of increasing public sector activities.

Nowadays, the growth in public expenditure has become a compulsion and thus, the disturbance situations matter little.

**1.2.3 The Classical v/s the Keynesian approach of public expenditure**

The classical economists believe that the government intervention brings more harm than good to an economy and that the private sector should carry out most of the activities. In his Welfare of Nations, Adam Smith (1776) advocated much on the “laissez-faire” economy where the profit motive was to be the main cause of economic developments. According to the classical dichotomy, an increase in the total amount of money leads to a proportionate increase in all money prices, with no change in the allocation of resources or the level of real GDP, which is known as money neutrality. The classical economists assumed that the economy was perfect: it is always at full employment level, wage rate and rate of interest is self-adjusting and as a matter of fact, the budget should always balance as savings is always equal to investment. Since they believe that the economy was always at its full employment level, their objective was certainly not growth.

Following the 1929-30 Great Depression, the classical economists that opposed government interventions, argued that strong trade unions prevented wage flexibility which resulted in high unemployment. The Keynesians, on the other hand, favored government intervention to correct market failures. In 1936, John Maynard Keynes’ (1883-1946) “General Theory of Employment, Interest and Money”, criticized the classical economists to put too much emphasis on the long run. According to Keynes, “we are all dead in the long run”. Keynes believed depression needed government intervention as a short-term cure. Increasing saving will not help but spending. Government will increase public spending giving individuals, purchasing power and producers will produce more, creating more employment. This is the multiplier effect that shows causality from public expenditure to national income.

Keynes categorized public expenditure as an exogenous variable that can generate economic growth instead of an endogenous phenomenon. Hereby, Keynes believed the role of the government to be crucial as it can avoid depression by increasing aggregate demand and thus, switching on the economy again by the multiplier effect. It is a tool that bring stability in the short run but this need to be done cautiously as too much of public expenditure lead to inflationary situations while too little of it leads to unemployment.

## 1.2.4 Maximum Social Advantage

The politics of public expenditure have gained new dimensions, namely welfare maximization. The principle of maximum social advantage is derived from the principle of equal-marginal utility. The law states that a rationale individual will distribute his given money income on two or more goods in such a way, that the marginal utility of the last money spent on either good, is the same. This law is based on ceteris paribus conditions.

## 1.2.6 Solow growth model

In his classic 1956 article, Robert Solow proposed the study of economic growth basing itself from a standard neoclassical production function. Neoclassical growth theory focuses mainly on capital accumulation and saving-related topics. Assuming there is no technological progress, this would imply that the economy has reached the steady-state equilibrium, where per capita income and capital are constant.

Solow found that the critical elements of GDP growth are technical progress, increased labor supply and capital accumulation. More profound research showed other factors as well to increase GDP growth: availability of natural resources and human capital. As a matter of fact, the income share of human capital is large in industrialized countries. Moreover, the result of high investment ratio (large physical capital stock) might as well increase the GDP growth. On the other hand, Solow residual is the change in total factor productivity which is technical progress. In other words, it means the amount by which output would increase as a result of improvements in methods of production, with all inputs unchanged.

**CHAPTER TWO**

**2. Budget Classification and Reform**

* **CHAPTER OBJECTIVES**
* **At the end of this unit, you should be able to**
* **Define Budget classification**
* **Discuss the functions of budget formats**
* **Identify the type of budget formats**

***2.1. Budget Formats***

* Formats are important to public budgeting. "When we speak of budgeting formats, we are talking about the way in which budgeting information is structured,
* the kind of information that is required to justify budget requests, and
* what kind of questions are asked during the budget review process”?

***2.2. Types of Budgets formats***

* Line-Item Budget
* Performance Budgeting
* Program Budgeting
* Zero-Based Budgeting
* Target-Based Budgeting
* Outcome-Based Budgeting

**2.2. 1. Line-Item Budgeting**

Expenditures and money allocation are made on an administrative-department basis, not on the basis of what departments really want to achieve. (e.g. money allocation for defense department, Health dept., education dept. etc.).

• This kind is most used in many developing countries.

A line-item budget lists, in vertical columns, each of the country’s revenue sources and each of the types—or classes—of items the city will purchase during the fiscal year. Following is an example of how line-item budgeting would be used in a small-town public works department.

The line-item budget, which is the most widely used of all budgeting systems, offers many advantages. It is comparatively easy to prepare and doesn’t require sophisticated financial skills. Also, the line-item budget is straightforward, simple to administer, and readily understood by the city council, city employees, and citizens. Moreover, the simplicity of the system makes it easier for the city council and administrator to monitor revenues and expenditures, which is important in this era of shrinking resources.

DEPARTMENT: Public Works

|  |  |  |  |
| --- | --- | --- | --- |
| Expenditure Classification | Previous Fiscal Year 2008 -2012 Actual | Current Fiscal Year 2012-13: Budgeted | Next Fiscal Year 2013-14: Request |
| Personal Services | Br | Br | Br |
| Supplies | Br | Br | Br |
| Contractual Services | Br | Br | Br |
| Capital Outlays | Br | Br | Br |
| TOTALS | Br | Br | Br |

The major deficiency of line-item budgeting is that the laundry-list format of the system provides no method of determining the amount of a particular country service produced by a given level of spending. Also, the broad expenditure categories used in a line-item budget make it difficult to set service priorities because there is no way to calculate the quantity or quality of services that would result from various expenditure levels.

**2.2.2. Program Budgeting**

Unlike the line-item budget, which lists total departmental appropriations by items for which the city will spend funds, a program budget displays a series of “mini-budgets,” which show the cost of each of the activities that city departments perform. In the case of the water department, for example, a separate mini-budget would be established for water production and distribution, water system repair and maintenance, and meter reading.

The sample below shows the budget for the street sweeping program of a public works department. Each of the other programs conducted by the department—street repair, solid waste collection, and inspection services—would have a similar, separate budget.

DEPARTMENT: Public Works

PROGRAM: Street Sweeping

|  |  |  |  |
| --- | --- | --- | --- |
| Expenditure Classification | Previous Fiscal Year 2008 -2012 Actual | Current Fiscal Year 2012-13: Budgeted | Next Fiscal Year 2013-14: Request |
| Personal Services | Br | Br | Br |
| Supplies | Br | Br | Br |
| Contractual Services | Br | Br | Br |
| Capital Outlays | Br | Br | Br |
| TOTALS | Br | Br | Br |

Program budgeting enables the city council and administrator to identify the total cost of each municipal service and set spending levels and priorities accordingly. The downside to the program budget approach is that considerable time is required to establish and maintain the system. Also, programs tend to overlap, both between departments and within the same departments, which can make collecting data difficult.

**2.2.3 Performance Budgeting**

* The expenditures and money allocation would be determined based on how the activity/project would be performed.
* “In performance budgets, information should be organized in terms of activities (repairing roads, planting trees, treating patients, teaching students, etc.). The activities should be measured; costs should be identified for these activities; and efficiency of performing these activities should be evaluated.” (Mikesell, 2011)

Performance budgeting is the same as program budgeting, except that one additional component—performance—is included to tie expenditures for each program to specific goals established for that program. For example, the amount budgeted for street sweeping would be tied to an expected level of performance, such as sweeping “X” number miles of streets during the fiscal year.

If the city council chooses to increase the level of street sweeping to sweeping residential streets once every two weeks rather than once each month, the council can easily relate the cost of sweeping per mile and then multiply this figure by the additional miles that are to be added to the street sweeping program to determine the new budget figure.

## Performance-based budgeting (PBB) is another advanced approach where budgets or funds are associated with specific objectives.

## With PBB, a set of goals or desired outcomes is first set. These objectives will then act as the rationale for the course of activities that the organization expects to undertake as well as its associated cost.

## By revolving around objectives, that is, the "results" that the organization wants to achieve, PBB helps build a result-oriented culture.

## On a side note, some performance indicators, i.e. KPIs (Key Performance Indicators), are now widely employed to facilitate this practice.

## Advantages of PBB

## • Assign clear ownership: By quantifying goals and objectives, PBB hold all the involved entities accountable for the process.

## • Priorities key activities: As it emphasizes achieving the organization’s goals and objectives,

## PBB is tightly integrated into the broader strategy. This helps management identify which activities or functions are critical and set them in order of priority.

## Disadvantages of PBB

## • Require engagement: Performance budgeting calls for both top-down and bottom-up buy-ins, exacerbating disengagement in employees.

## 2.2.4. Zero-based Budgeting (ZBB)

To create a new budget, [zero-based budgeting (ZBB)](https://blog.trginternational.com/zero-based-budgeting-and-how-it-helps-organizations-to-fuel-growth) necessitates the justification of all manner of budget expenditures and line items on the balance statement. On this account, this approach is implemented **irrespective of the previous period's spending**, as opposed to the above-mentioned traditional method of modifying past actuals.

In other words, ZBB compels businesses to **build a new budget from scratch**; starting from the baseline of "zero" as the name suggests. People in charge, i.e. analysts, will evaluate and justify every bit of expenses.

First introduced in the 1970s, as an attempt to align resource allocation and corporate strategy, ZBB is downright a regimented discipline in its earnest effort to justify which activity adds real value and is worth keeping, and which is a futile effort that needs to be disposed of.

At the outset, ZBB is structured to **optimize** cost containment and management, an imperative in this ever-changing world. Aside from that, it is also a value generator that facilitates any number of functions.

### Advantages of ZBB

* Improved accuracy: ZBB ensures that every apartment is catered with the **exact amount** of resources and funds they need.
* Increased efficiency: ZBB centers on current needs and future objectives rather than past results, ensuring that every nickel spent adds value and contributes to the organization’s strategic objectives.
* Optimized resource allocation: ZBB allows for the identification and elimination of the poor values, enabling businesses to free up more resources that could instead be mobilized into other critical functions.
* Aligned with business objectives: ZBB establishes a strong tie between the way money is spent and the overall strategy.
* Fostered congruence: ZBB is a **top-down approach** that requires an active engagement of every department and an organization-wide collaboration across the business, fostering a culture of communication.

ZBB, for all that, has long been a subject of debate as it is undeniably a **cost center** that drains resources out of the organization.

### Disadvantages of ZBB

* Depleted resources: Starting from scratch entails the concerted effort of manpower, a substantial investment of time and money, not even excluding the endless pile of paperwork and reports, making the practice an intimidating nuisance.
* Unable to measure the unmeasurable: ZBB falls short when it comes to determining the budget for activities or departments having **intangible outcomes** such as Marketing and Research & Development, an issue that remains unresolved.
* Extensive training: Limited expertise on the method, or rather the lack thereof, could be a severe problem that presses organizations to conduct intensive training for employees, which not only deprives time and effort but also may stir up attrition in people to which ownership are assigned.

## • Encourage subjectivity: As this practice is inherently subjective, it encourages management to make decisions based on gut feelings.

## 2.2.5. Activity-based Budgeting (ABB)

Activity-based budgeting (ABB) calculates the total cost needed to hit the target of the **anticipated level of activities** (thus its name).

This top-down method first calls for the identification and thorough scrutiny of all the **activities that drive cost**. This analysis will then give grounds for allocating resources to achieve the level of activities that was anticipated beforehand.

To give an example, you run a small toy manufacturer. Your forecast for the next year says that sales would be 10,000 units, each of which is assigned the same Cost of Goods Manufactured (COGM) at Birr 5. Employing ABB, you should compute a budget of Birr 50,000 (10,000 \* 5).

ABB could be easily **confused** with ZBB: Rather than starting from the basis of zero, ABB allocates resources by studying the efficiencies of the activity that is **under review**. Instead of starting everything from scratch, people leverage activity-based analysis to streamline the process.

### Advantages of ABB

* Enhanced efficiency: By linking every function and department with their spending, ABB provides a complete picture of the organization. Based on this visibility, the organization are enabled to identify and close the performance gap as well as seize opportunities that may arise
* Cost management: By taking into account each and every activity that incurs costs, ABB delivers better cost containment, thus **improving the bottom line.**
* Eliminated redundancy: With the help of ABB, any non-value-added activity or function will be easily diagnosed for taking corrective measure or removing

### Disadvantages of ABB

* Suck out scarce resources: Just like any other discipline with structural implications, ABB greatly expands the workload and requires the devotion of workforce and financial resources.

## Foster short-termism: ABB focuses on the contemporary goal rather than the long-term strategy.

 **2.2.6. Outcome Based Budgeting**

Outcome based budgeting is an approach that will move Montgomery County Government away from a traditional, incremental way of allocating funds to departments to allocating funds for programs and services that will achieve the County Executive’s Priority Outcomes.

This approach begins with using priority outcomes as a focal point for budgeting and connects resources necessary to achieve those outcomes by using performance data and evidence to make budget decisions. In addition, this approach will foster collaboration between departments and reward services that obtain results by shifting dollars away from programs that are ineffective and focusing on the return on investment.

An extensive list of the factors causing difficulty in the successful implementation of outcome-based budgeting can readily be extracted from the prior literature and may explain why this potentially attractive practice has proved so challenging to actually attain.

1. ***Outcome assessment.*** The high profile attributed to outcomes brings its own difficulties. How are outcomes to be graded as to success levels? Differing views may be held on the performance quality indicated by a certain outcome measure (Kong 2005).
2. ***Outcome information utility.*** The use ofoutcomes as a basis for accountability may be problematic. There may be extensive time lags between resource use and performance outcomes. Outcome measures may be subject to multiple determinants, with the budget holder’s managerial action being only one.
3. ***Outcome information response.*** The results of a system of outcome budgeting may bring new issues for the implementer.
4. ***Outcome specification.*** Outcomes may be of a qualitative nature (see, for example, Footnote 2) and multi-dimensional, i.e., they are not susceptible to being represented as a single quantitative measure. As a result, the performance aspect of the system may have a high level of subjectivity and even agreeing on outcomes may be difficult.
5. ***Costing system requirements.*** Linking outcomes and cost may be difficult (Schmidtlein 1999). A new cost tracking system is likely to be a prerequisite for this, and that means a substantial investment will be necessary to set up and operate the system. This problem often leads to outcome measures being developed on a stand-alone basis that is decoupled from the cost budget.
6. ***Competing budgetary systems.*** Traditional budgets remain in operation and dominate the attempts to create outcome-based budgets. Managers tend to revert to familiar systems.
7. ***Relevant criteria in addition to outcomes.*** Outcomes may not always be the only, or even, the most important factor in assessing performance. Other evidence on contextual factors may be more significant in certain circumstances.
8. ***Bureaucracy.*** Bureaucratic conditions have to be overcome. These relate to abilities (in performance measurement, of dedicated staff, in respect of staff technical skills), authority (legal, procedural, and organizational), and acceptance (political and managerial). Despite the many strengths and attractions of outcome-based budgeting, for the reasons listed above, its implementation has proved to be extremely difficult.

**CHAPTER THREE**

**The Budget Cycle**

**Chapter objectives**

* **At the end of this chapter the students will be able to:**
* **Understand budget cycle**
* **Define the stages of budget preparation**
* **Understand the uses of budget evaluation**
	+ 1. ***Phase of the budget Cycle***
1. **Formulation**
2. **Approval by the legislation**
3. **Implementation**
4. **Evaluation/Audit**

**Budget Process has four Stages (Budget cycle)**

* 1. ***Budget formulation stage***

**.**

 **During the formulation stage:**

* **The economic** forecast and the program and financial plans are prepared for the various departments**.**
* **Economic data** and statistics are utilized in developing projected revenues for the upcoming fiscal year.
* when the budget plan is put together by the executive branch of government

 The FDRE Constitution calls for the governments at all times to promote the participation of the people in the formulation of national development policies and programs, and to support the initiative of the people in their development endeavors (Article 89(6)). The overall approach of the Constitution is to provide a meaningful devolution of power to the lower levels of administration. This is possible if adequate power is granted to the lowest units of government to enable the people to participate directly in the local administration (Article 50(4)). The need for devolution of power also entails the autonomy to decide on the budgetary allocation based on local expenditure needs. That is, reversing the strict observance of the hierarchical budgetary relationship.

 The FDRE Constitution also requires that the states shall determine all financial expenditure necessary to carry out all responsibilities and functions assigned to them by law (Article 94 (1)). However, the expenditure performance of states is, among other things, dependent upon the ability to draw up and administer their budgets. The independent budgeting process actually began in most of the states in the 1993/94 fiscal year. To understand this budgeting process, we have to remind ourselves how state governments are organized at least for the purpose of the budgeting system. The State Council (legislature), the state administration and the judiciary are established at the state level. The state administration, the highest executive organ, consists of sector bureaus which are also organized at the zonal, wereda and kebele level. The sector bureaus are the major actors in the states' budgeting and spending activities. The wereda have a 'wereda council' and a 'wereda administration‟.

The budgeting process in general had two dimensions: the identification of priorities and goals and managing funds in order to fulfill these goals.

*3.2- Budget review and approval Stage*

 The process in which the Legislature discusses, modify, and adopt the budget.

**During the Enactment stage:**

* Public expenditure may be increased and decreased.
* Public revenues may be increased or decreased**.**

**3.3- *Execution Stage***,

* when the policies of the budget are carried out by the government organs.

 **During the execution stage:**

* Funds which appropriated are released

 Each administrative unit, either at the federal or regional level, is responsible for the management and execution of its own budget approved by the respective governments. This in principle grants autonomy to each federal, regional and sub-regional administrative unit over the execution of its capital and recurrent budget. But this autonomy is firmly defined by the financial laws that regulate the proper execution of the budget (the Financial Administration Proc.No.75/1996 and Council of Ministers Regulation No.17/97). The laws require the head of every public body to ensure the proper implementation of the budget consistent with the rules and regulations defined by the finance laws. The laws also require that the budget execution against planned expenditures at the federal level be reviewed by the Ministry of Finance and by the regional finance bureaus at the regional and wereda levels. This may entail a reallocation of the remaining amount if there is underspending during the budget year. The disbursement of the recurrent budget normally takes place on a monthly basis from the authorized finance office and is collected from the banks. For payments from the federal government, the ministry itself makes the payment; at the regional level payments are made at the regional, zonal and wereda finance offices depending on the nature of the claim. The major actors within the respective regions are the sector offices that are organized with three tiers where the lower level is accountable to the higher one.

* In principle, the budget implementation follows the decisions in the budgeting process. This budget allocation process itself shows how the sector offices implement the expenditure responsibilities of sub-regional levels. In general, the role of the sector offices was decided based on a general principle that if the function was essential for several wereda, then the budget could be implemented by the zonal sector offices. Similarly, if it became the concern of several zones, then the regional sector offices would better handle it. For example, in agricultural sector, regional agricultural sector bureaus are responsible for research and training centers whereas zones and wereda are responsible for expertise advice in agriculture and veterinary services to the needy at the rural areas. In health sector, the regional sector bureaus distribute medicine and health equipment and mobilize fund and resources to fight statewide epidemics like malaria. Zones and wereda administer hospitals and health centers respectively. However, in some matters, identifying and allocating powers in this manner may be complex and more difficult to identify. When it is difficult to identify the common concerns, there is a tendency to centralize power.

**3.4. *Auditing and assessment Stage***

* when the actual expenditures of the budget are accounted for and assessed for effectiveness.

 **During the assessment stage:**

departments / agencies are evaluated to identify areas in need of improving compliance procedures with applicable laws and regulations.

The budget evaluation begins at the institutional level by the internal auditor. The finance laws require the internal auditor to produce a monthly report stating the monthly revenue and expenditure of the institution and this report is sent to the finance office of the level of administration (Article 57 of the financial regulation). At the federal level, all public bodies which execute the federal fund should account monthly, quarterly, semi-annually and annually to the Ministry of Finance.

 The state governments are also required to report to the Ministry of Finance corresponding to the financial reporting system of the federal government (Article 74 of the financial regulation). Accordingly, they are required to submit financial reports monthly, quarterly, semi-annually and annually to the finance ministry. The report should at least contain 'the details of their receipts and disbursements by revenue and expenditure source codes; their cash balances and levels of outstanding debt; and their performance against the objectives stated in their subsidy requests'(Article 74(4) of the financial regulation). In practice, however, the report does not contain the details as required by the financial regulation, and reports are not compiled in a timely fashion due to delays in reporting from lower levels of administration and a shortage of manpower within the finance bureaus. The federal government, through the Ministry of Finance and the Auditor General, also has the power to conduct an audit of the federal offices as well as the state governments concerning the use of subsidy grants they have received from the federal government. The available reports of the Auditor General, however, have revealed serious financial mismanagement.

Budget evaluation at the regional level has to be done formally every quarter on the basis of the activity reports submitted by each sector bureau. All state government institutions have to be audited by internal and external auditors.

**CHAPTER FOUR**

1. **BUDGET STRUCTURES AND PRACTICES**

During budget preparation, trade-offs and prioritization among programs must be
made to ensure that the budget fits government policies and priorities. Next, the most
cost-effective variants must be selected. Finally, means of increasing operational
efficiency in government must be sought. None of these can be accomplished unless
financial constraints are built into the process from the very start.

 Accordingly, the budget formulation process has four major dimensions:
1. Setting up the fiscal targets and the level of expenditures compatible with
 these targets.

1. Formulating expenditure policies.
2. Allocating resources in conformity with both policies and fiscal targets.
3. Addressing operational efficiency and performance issues
	1. **The Federal Budget**

The federal budget is one of the most important policy instruments of government. Through their budget decisions, the elected leaders fulfill their constitutional responsibilities, signal their policy priorities, and manage the federal purse. The budget reflects their decisions to tax and spend, to borrow and lend, and to consume and invest. These decisions define the size of the federal government and its role in the national economy.

Policymakers use the federal budget process to establish spending priorities and identify revenue to pay for those activities. The size and scope of the decisions make the budget process one of the most important and complex exercises in public policy making.

Over the coming decades, there will be a growing structural mismatch between revenues and spending. This poses significant challenges for our budget, as well as our political system. Politically, it is always easier to cut taxes and increase spending than it is to raise taxes and cut spending. Yet addressing our rising debt will require policymakers to face those choices, and delay will make them even more difficult

A budget (derived from the old [French](https://en.wikipedia.org/wiki/French_language) word meaning purse) is a quantified financial plan for a forthcoming accounting period.

A budget is an important concept in [microeconomics](https://en.wikipedia.org/wiki/Microeconomics), which uses a [budget line](https://en.wikipedia.org/wiki/Budget_line) to illustrate the trade-offs between two or more [goods](https://en.wikipedia.org/wiki/Good_%28economics%29). In other terms, a budget is an organizational plan stated in monetary terms.

In summary, the purpose of budgeting tools is to:

1. Provide a forecast of revenues and expenditures. This is achieved by constructing a model of how a business might perform financially if certain strategies, events and plans are carried out.
2. Enable the actual financial operation of the business to be measured against the forecast.
3. Establish the cost constraint for a [project](https://en.wikipedia.org/wiki/Project), program, or [operation](https://en.wikipedia.org/wiki/Business_operations).
	1. **The Ethiopian Federal Government Budget**
		1. **The Recurrent budget**

 The recurrent budget is not defined in the financial law or the financial regulations. The financial law does provide a definition of the capital budget thereby residually defining the recurrent budget. There is considerable uncertainty amongst budget staff as to what expenditures should be placed in the recurrent or capital budget. The financial law defines the items of expenditure for the capital budget as fixed assets or consultancy services.

Analysis of recurrent budgets though show that fixed assets which are not associated with an external assistance project are frequently budgeted in the recurrent budget. It is also not clear how to budget those externally financed projects which build capacity (training, technical assistance) as opposed to those that install or build fixed assets.

There are a variety of criteria that can be used in defining recurrent and thus capital budgets. The three most common are source of finance (domestic, external), status of expenditure (project versus program), and object of expenditure (fixed asset, consultancy service, etc.). The financial law has defined the budget through the object of expenditure making the recurrent budget residual to the definition of the capital budget.

The recurrent budget at the federal level, which consolidates and coordinates the recurrent budgets of all Federal Public spending bodies, is prepared by the budget department of the ministry of finance.

The Ministry of Finance are authorized by the Federal Government during the 1996 (G.C) fiscal year under the proclamation No 358/2003. Some of the authority issued to MOF are quite illuminating and worth discussing.

Article 3 of proclamation no 358/2003 states that: *The Ministry of Finance and Economic and development is here by authorized to grant advance of salary to permanent federal civil servants for necessary cases in accordance with directives issued thereon, and to fix the period of repayment thereof, and to collect interest thereon, at the rate fixed by the directives to be issued by the Ministry of Finance.*

## Preparation of Budget in the MOF

* 1. Preparation of the macro framework
	2. Allocating public expenditure between the federal and regional governments
	3. Allocating between recurrent and capital budget at federal level
	4. Budget call and ceiling notification by ministry of finance
	5. Submission of the budget proposal to the ministry of finance
	6. Budget hearing with the ministry of finance
	7. Review and recommendation by ministry of finance
	8. Submission to the council of ministers
	9. Submission to the council of peoples' representatives
	10. Submission to the council of peoples' representatives
	11. Allotment

###### RECURRENT BUDGET OF FEDERAL GOVERNMENT

**RECURRENT BUDGET**

|  |  |
| --- | --- |
| **Description** | **Recurrent Budget** |
| **1** | **2** |
| TOTAL | 7,885,500,000.00 |
| ADM. & GEN. SERVICE | 3,755,926,900.00 |
| Organs of StateJustice and Public OrderNational DefenseGeneral ServicesEconomic Service | 76,548,300.00223,982,800.003,000,000,000.00455,395,800.00**396,071,700.00** |
| Agric. And Natural ResourcesWater RecoursesIndustry and TradeMining and EnergyTransport and CommunicationConstructionSocial Service | 110,093,600.0029,521,300.0073,655,700.0031,550,600.00120,535,700.0030,714,800.00**740,080,400.00** |
| Education TradingCulture and SportHealthLabor and Social AffairsPrevention and RehabilitationOther Payments | 586,671,200.0027,887,800.0074,642,900.0026,644,800.0024,233,700.00**2,993,421,000.00** |
| TransferRegional SubsidyPublic DebtsProvisionsOthers | 10,507,600.002,411,000,000.00369,200,000.00202,713,400.00 |

### *Capital Budget*

Ethiopia has a dual budget system with capital and recurrent budgets prepared separately by planning and finance institutions respectively. The budget preparation process calendars of recurrent and capital budgets are different. The process of budgeting begins with the federal coordinating ministries (ministry of finance and ministry of economic development and cooperation), which determines the budget ceiling for federal spending public bodies and the grants to the regions. The ministry of economic development and cooperation prepares the grant formula, which the prime minister's office uses to issue the regional grants. The ministry of economic development and cooperation also issue the capital budget ceiling for the federal spending public bodies. The ministry of finance issues the recurrent budget ceiling to the federal spending public bodies.

A capital budget is broadly describing as an outlay on projects that results in the acquisition of fixed assets and the provision of development services. The financial law defines capital expenditure as the "outlay of the acquisition of or improvements to fixed assets, and includes expenditures made for consultancy services." Such outlays include: expenditure on physical and social infrastructure, machinery and equipment, research studies and design, management, supervision and direct labor costs, transfer payments like taxes related to projects. The concept of a capital budget has therefore a wider coverage than simple outlays in fixed investments, since it includes expenditure on development services like agricultural research and transfer payments related to a project.

The capital budget is presented in two ways: by economic category and by appropriating agency by code of expenditure. Individual projects are detailed under such sectors as "agriculture development", "road construction" and the like. Project activities are further codified by items of expenditure.

Currently the composition of capital expenditure in Ethiopia tends to increasingly shift towards expenditure on physical infrastructure, which is an element of the economic development category and the social infrastructure, which is included in the social development category. This allocation is mainly due to the low level of the existing infrastructure development which cannot be left to the private sector.

##### **Budgeting at the Region and Sub-region Levels**

To reduce regional disparities among regions, government provides an incentive package scheme to investors to encourage them to invest in the backward regions. Thereby economic development will be fostered. In addition to this, government appropriately allocate budget subsidies to all regions depending upon their infrastructure need: schools, road, electricity, hospitals, etc.

• **The Objective of Budget Subsidy**

To ensure rapid economic development, authority has to be decentralized at region and sub region level in order to encourage them to determine their budget requirement. Accordingly, the federal government will provide a general-purpose grant and specific purpose grant. Therefore, the main purpose of the General Grant is:

* 1. To assist regions and sub regions expenditures on which case they are unable to cover.
	2. To assist regions and sub regions on laying an infrastructure in order to normalize the regional disparities.
	3. The purpose of the general grant is indicative. On one hand, it works in normalizing the horizontal fiscal imbalance and to maintain efficiency in allocation.
	4. Type of Grant and Fiscal Transfer: when revenue is unable to cover the expenditure, it may jeopardize the activities of the regions. In such instances, grant without a question is necessary. In this case, either specific purpose grant or general-purpose grant will be a mandate.

General Purpose Grant: will provide full authority to the user as to allocate the grants based up on their expenditure’s priority.

1. Specific Purpose Grant: in this grant, expenditures are predetermined. Whereby the regional government or the federal government will impose on regions to see to it that they are implemented as per plan.
	1. **Expenditure and Revenue Equalization**

 The regions in order to meet their expenditure assignment they should have a financial strength (Revenue or Financial Resource). In order to have a clear picture as to surplus and deficit, the regions must lay an equalization system in order to monitor their performances.

**Indicators of Budget Size**

To determine the budget requirements of the regions and sub regions, certain factors needed be considered. The following factors are quite illuminating:

* 1. **Population**

 Every economic plan should be based up on the population. The planner must center the total number of populations. The planner must center the total number of populations, the birth rate, economic concentration, housing etc. while planning, this variable must be considered, and accordingly the budget need will be determined.

* 1. **Agriculture**

Agriculture is the backbone of the regional economy. In assessing of the budget size, the agricultural development of the region is indicator while assessing the development, the following factors needed to be considered:

1. workforce (development agent)
2. number of a household in extension package program
3. number of veterinary clinics
	1. **Health**

Health sector development program must consider the primary health care – curative as well as preventive. While trying to foster the health economy, the planner must look on to the following variables.

* + 1. **Number of Health Center**

• Number of health center/ thousands of populations

• Number of clinics/ thousand population etc.

* + 1. Health Professionals

• Number of Doctors/ thousand population

• Number of Nurses/ thousand population

• Number of Laboratory Technicians/ thousand population

* 1. **Education**

The other factor to be consider while budget is the education center. The regions must compare the level of education compared to the other regions before determining the budgets. The factors to be work under this is:

* + 1. Number of primary schools
		2. Correlation between students and teachers
		3. Class size of the primary school etc.
	1. **Water**

Water supply is one of the basic needs that a human being requires to live. To avoid water cause diseases, regions must work in supplying pure water to their fellow citizens. Accordingly, they must work on the need assessment of water supply etc.

#### Procedures to Prepare Budget at Region and Sub-region Level

The procedures followed to prepare the budget at region and sub-region levels follow the series of steps which are as follows.

**1. Pre-ceiling Budgeting by Woredas**

The woredas prepares a budget with no indicative or final ceiling from the zone or the region. There is no ceiling yet from the zone or the region because the federal government has not yet notified them of their grant, which covers approximately 85% of their regional expenditure. The woreda sector office prepares a budget. The woreda executive committee forms a budget committee to review the budget submission.

**2. Review of Woreda Pre-ceiling Budgets by Zones**

The woreda budgets are sent to the zone through two channels. The woreda executive committee submits to the zone executive committee and the woreda sectoral offices send to the zone sectoral departments. The executive committee will set up a budget committee which reviews the woreda and one sectoral budget submissions.

**3. Review Zone Pre-ceiling Budgets by Regions**

The zone budgets are sent to the region through two channels. The zone executive committee submits to the region sectoral bureaus. The sectoral bureaus then prepare a budget submission to the region plan bureau. The sectoral bureau can change the budget submission from the zone. The submission is the combined budget of the sectoral bureaus, departments and offices.

1. **Determination of the Regional Expenditure Envelop**

The region is notified of the federal grant between March and May. The total regional public expenditure envelope is then determined based on the federal grant, local revenue and local borrowing.

1. **Allocation of the Region Envelop Between Capital and Recurrent Expenditure**

The region allocates the expenditure envelop between capita and recurrent. The allocation begins with recurrent expenditure specifically non-discretionary expenditure expenditures (debt, legal liabilities, pension, salary). The largest share of recurrent expenditure is for salary and the region can determine this total because all staff are managed from the region level. The balance of the envelop or the upper bound residual of he expenditure envelop is reserved for capital expenditures. The trend shows that government emphasizes capital expenditure.

1. **Allocation to Bureaus and Zones**

The capital envelope is allocated to the region bureaus by increment. First, the share of ongoing projects, inter-regional projects and those projects administrated by bureaus at zone and woreda level and included first.

1. **Allocation to Zone sector Departments**

In this step, the lump sum zone allocation is distributed by sector to the corresponding zone and woreda departments and offices. Once the share of the zonal allocation is known the sectoral budget allocation is made by the following criteria: *ongoing projects, new priority projects, the 5-year plan and inter-zonal projects.*

1. **Allocation to Woredas**

The woreda's are allocated on a sectoral basis from the zone. Allocation is done through discussion by the woreda council with the assistance of two planning officers who are assigned to the council and experts from the zone who will make allocations to sectoral offices.

**CHAPTER FIVE**

 5. **Government Accounting and Financial Reporting**

 At the end of this lesson the students will be able

* Identify the accounting process in government sector
* Understand the uses of funds
* Define account types
* Differentiate Accounting and Financial reporting

**Introduction**

The term “accounting” is used to describe the process of assembling, analyzing, classifying and recording data that is relevant to transactions and events affecting the government’s finances.
Assembling involves gathering together purchase orders, invoices, billing statements, notices, receipts, receiving slips, closing documents, bank statements, correspondence, and other documents that support a transaction.

Accounting” and “financial reporting” are similar but distinctly different terms that are often used together. Financial reporting is the process of aggregating and summarizing the detailed information that was assembled, analyzed, classified, and recorded in the accounting process, and putting it into a usable form for decision making by those who need it. Financial reporting can take one of three forms: internal financial reporting, special-purpose external financial reporting, and general-purpose external financial reporting. Internal financial reporting is developed for management to meet specific managerial needs and preferences, with management determining the content, format, and timing of the reports.

* 1. **. The Accounting Process**.

The accounting cycle is the holistic process of recording and processing all financial transactions of a company, from when the transaction occurs, to its representation on the [financial statements](https://corporatefinanceinstitute.com/resources/knowledge/accounting/three-financial-statements/), to closing the accounts. One of the main duties of a [bookkeeper](https://corporatefinanceinstitute.com/resources/careers/jobs/finance-accounting-job-titles/) is to keep track of the full accounting cycle from start to finish. The cycle repeats itself every fiscal year as long as a company remains in business.

The accounting cycle incorporates all the accounts, journal entries, [**T accounts**](https://corporatefinanceinstitute.com/resources/knowledge/accounting/t-accounts/)**,** debits, and credits, adjusting entries over a full cycle.

**1 Transactions**

Transactions: Financial transactions start the process. If there were no financial transactions, there would be nothing to keep track of. Transactions may include a debt payoff, any purchases or acquisition of assets, sales revenue, or any expenses incurred.

#**2 Journal Entries**

[Journal Entries](https://corporatefinanceinstitute.com/resources/knowledge/accounting/journal-entries-guide/): With the transactions set in place, the next step is to record these entries in the company’s journal in chronological order. In debiting one or more accounts and crediting one or more accounts, the debits and credits must always balance.

#**3 Posting to the General Ledger (GL)**

Posting to the GL: The journal entries are then posted to the general ledger where a summary of all transactions to individual accounts can be seen.

#**4 Trial Balance**

Trial Balance: At the end of the accounting period (which may be quarterly, monthly, or yearly, depending on the company), a total balance is calculated for the accounts.

#**5 Worksheet**

Worksheet: When the debits and credits on the trial balance don’t match, the bookkeeper must look for errors and make corrective adjustments that are tracked on a worksheet.

#### #6 Adjusting Entries

[Adjusting Entries](https://corporatefinanceinstitute.com/resources/knowledge/accounting/adjusting-entries/): At the end of the company’s accounting period, adjusting entries must be posted to accounts for accruals and deferrals.

#### #7 Financial Statements

[Financial Statements](https://corporatefinanceinstitute.com/resources/knowledge/accounting/three-financial-statements/): The balance sheet, income statement, and cash flow statement can be prepared using the correct balances.

###  Overview of the three financial statements:

#### #1 Income statement

Often, the first place an investor or analyst will look is the income statement. The [income statement](https://corporatefinanceinstitute.com/resources/templates/financial-modeling/income-statement-template/) shows the performance of the business throughout each period, displaying [sales revenue](https://corporatefinanceinstitute.com/resources/knowledge/accounting/sales-revenue/) at the very top. The statement then deducts the cost of goods sold ([COGS](https://corporatefinanceinstitute.com/resources/knowledge/accounting/cost-of-goods-manufactured-cogm/)) to find [gross profit](https://corporatefinanceinstitute.com/resources/knowledge/accounting/gross-profit/). From there, the gross profit is affected by other operating expenses and income, depending on the nature of the business, to reach [net income](https://corporatefinanceinstitute.com/resources/knowledge/accounting/what-is-net-income/) at the bottom – “the bottom line” for the business.

 **Key features:**

* Shows the revenues and expenses of a business
* Expressed over a period of time (i.e., 1 year, 1 quarter, Year-to-Date, etc.)
* Uses accounting principles such as matching and accruals to represent figures (not presented on a cash basis)
* Used to assess profitability

#### #2 Balance sheet

The balance sheet displays the company’s assets, liabilities, and [shareholders’ equity](https://corporatefinanceinstitute.com/resources/knowledge/accounting/stockholders-equity-guide/). As commonly known, assets must equal liabilities plus equity. The asset section begins with [cash and equivalents](https://corporatefinanceinstitute.com/resources/knowledge/accounting/cash-equivalents/), which should equal the balance found at the end of the cash flow statement. The balance sheet then displays the changes in each major account. Net income from the income statement flows into the balance sheet as a change in [retained earnings](https://corporatefinanceinstitute.com/resources/knowledge/accounting/retained-earnings-guide/) (adjusted for payment of [dividends](https://corporatefinanceinstitute.com/resources/knowledge/finance/dividend-vs-share-buyback-repurchase/)).

 **Key features:**

* Shows the financial position of a business
* Expressed as a “snapshot” or financial picture of the company at a specified point in time (i.e., as of December 12, 2017)
* Has three sections: assets, liabilities, and shareholders’ equity
* Assets = Liabilities + Shareholders Equity

#### #3 Cash flow statement

The cash flow statement then takes net income and adjusts it for any non-cash expenses. Then, using changes in the balance sheet, usage and receipt of cash is found. The cash flow statement displays the change in cash per period, as well as the beginning balance and ending balance of cash.

**Key features:**

* Shows the increases and decreases in cash
* Expressed over a period of time, an accounting period (i.e., 1 year, 1 quarter, Year-to-Date, etc.)
* Undoes all accounting principles to show pure cash movements
* Has three sections: cash from operations, cash used in investing, and cash from financing

###  #**8 Closing**

Closing: The revenue and expense accounts are closed and zeroed out for the next accounting cycle. This is because revenue and expense accounts are income statement accounts, which show performance for a specific period. Balance sheet accounts are not closed because they show the company’s financial position at a certain point in time.

* 1. **. Account Types**
1. **Assets Account**

The assets account includes everything that your company owns. Assets are divided into tangible and intangible. Examples of tangible assets include desktop computers, laptops, cars, cash, equipment, buildings and more. Your trademark, logo, copyrights and other non-physical items are considered intangible assets.

When you're starting a business, it's your responsibility to list the types of assets that your company has. Every time you purchase new products, add them to your list. Let your accountant know about it so he or she can deduct any expenses that are considered necessary for your business.

**2. Liabilities Account**

Liabilities include the debts or obligations payable to creditors and other outsiders to which your company owes money. These can be loans, unpaid utility bills, bank overdrafts, car loans, mortgages and more.

1. **Equity Account**

The equity account defines how much your business is currently worth. It's the residual interest in your company's assets after deducting liabilities. Common stock, dividends and retained earnings are all examples of equity.

After recording these transactions, your accountant will make a balance sheet. This information will provide a snapshot of what your business owns and owes. It reflects your company's financial position and offers valuable insights into its overall performance

**4. Expenses Account**

Any product or service that your company purchases to generate income or manufacture goods is considered an expense. This may include advertising costs, utilities, rent, salaries and others. Some expenses are deductible and help reduce your taxable income.

For example, you may deduct direct labor costs and business-related travel costs, but you cannot deduct personal expenses, donations, exchange loss and penalties.

**5. Revenue or Income**

Revenue, one of the primary types of accounts in accounting, includes the money your company earns from selling goods and services. This term is also used to denote dividends and interest resulting from marketable securities.

* 1. **. Fund Types**

Fund may be defined as an independent accounting entity which commands the use of resources with its own accounting system that is made up of a self-balancing set of accounts which enabling the financial report to be presented showing the operation of the fund system.

For stewardship function the income of governments are categorized in to a series of funds and each fund caters for a specific welfare activity of Government. The word ‘Fund’ has been defined as “a separate fiscal and accounting entity in which resources are held, governed by special regulations, separated from other funds and established for specific purpose”.

**5.3.1 Classification of Funds**

Funds can be classified into three categories, namely:

1. **Government Funds**: These are used for resources that are derived from the general tax and revenue powers of the Government.
2. **Proprietary Funds**: These are funds used to account for the resources derived from the business activities of Government and its agencies such as Parastatals.
3. **Fiduciary Fund**: These are used to account for resources held and managed by the Government in the capacity of a custodian or trustee. Example trust and agency fund and pension trust fund etc.

 **5.3.2. Types of Funds**

 (a) **Public Fund**: The term Public Fund is the generic term used to describe all public monies. It is the summation of all funds established by the Constitution, Acts of Parliament or under the authority of an Act of Parliament. The Consolidated Fund and Contingency Fund are subsets of this fund

(b) **General Fund**: This is fund established for resources which are devoted to financing the general administration of government. It is called Consolidated Revenue Fund (CRF), the main Fund of the Federal Government into which all revenues generated for the Federal Government should be paid into, and out of which all legally authorized expenditures should be paid from.

(c) **Capital Project Fund**: This fund is established into which moneys are accumulated to undertake projects or for the acquisition of capital assets e.g. Development Fund. Development Fund is a fund used to finance capital development.

(d) **Special Fund**: This is a fund that is created for a specific purpose e.g. Education Fund, National Housing Fund, Small and Medium Enterprise Fund (SMEF), Agricultural Development Fund (ADF), Tertiary Education Tax Fund (TET Fund), etc.

(e) **Trust and Agency Fund**: This fund is established to hold moneys that the government holds in trust for some institution or body. Government holds this money as a trustee or an agent to the owner. Example can be moneys that the government holds from International bodies as rewards to the National armed forces for International peacekeeping assignment.

(f) **Contingency Fund**: This is a fund set up to meet unforeseen expenditure used in urgent/emergency situations occasioned by natural disaster such as flood, fire, war or outbreak of some disease in certain part of the Nation etc.

(g) **Contingency Reserve Fund**: This is that part of the normal approved appropriation which is set aside by the Executive. It is normally part of the planned expenditure (possibly a certain percentage of all estimates or votes), which is deducted and reserved, with the aim of helping out any spending organization in the future to meet any unexpected spending.

(h) **Internally Generated Funds**: This means revenue generated from the activities of a government agency from its operations other than taxes collected by the Revenue Agencies and includes non-tax revenues.

(i) **Inter-Governmental Service Fund**: This is a fund established to provide service to other funds. e.g. Government clearance fund which helps to maintain (transitionally) the balance between the Federal Government and other state Governments in respect of transactions.

(j) **Revolving Fund (Working Capital Fund)**: This is a fund created out of which spending organizations can borrow monies for particular project or activity which is sold later and once sold, the monies generated are paid back into the fund e.g. Drugs revolving fund, loan revolving fund, etc.

(k) **Debt Service Fund/Sinking Fund:** This special fund is kept as alternative to Loans Fund, where the policy of the government is to keep any loan contracted in the Consolidated Fund. The Fund is for the service of both the principal and interest payments hence transfers into this are purely moneys from the Consolidated Fund necessary for the principal and interests’ payments.

(l) **Counterpart Fund**: This is a fund, which is set established by governments and is used to support projects which are funded by foreign donations. The government makes a contribution in addition to the foreign donations, towards the completion of the project.

(m) I**ntra-governmental Service Fund**: This fund is created as a unit with a central function of providing some basic services among government organizations or departments to ensure economy and efficiency. A stationery depot can be established within a government publishing house to supply various departments with their stationery needs.

* + 1. **Advantages and Disadvantages of Funds**

The following are the advantages and disadvantages of funds

**Advantages of Fund**

1. It ensures financial control. When a fund is created, the purpose of the fund is expressly stated and as such money meant for a project can only be used for that project.
2. It can be used to emphasis/stress government policy.
3. It can be used for sympathetic purposes.
4. It can be used for control purposes.

**Disadvantages of Fund**

1. There is no provision for debtors and creditors.
2. Assets are not capitalized. They are written off in the year of purchase.
3. Effective financial control on all funds may be difficult.
4. It makes consolidation of government accounts difficult.

**5.4. Basis of Accounting**

* 1. **. Basis of Government Accounting**

There are three bases under which the financial statement of any enterprise could be complied. These are:

(i) Cash basis
(ii) Accrual basis
(iii) Commitment basis

**1. Cash Basis**

Under this basis, financing transactions are recorded only when cash is received or paid irrespective of the fact that the transaction leading to the receipt or payment of cash now might have occurred in previous accounting period. Under the cash basis, debtors and creditors are eliminated and the costs of fixed assets are written off in the year of purchase. This is the basis under which the financial statements of government in Nigeria are being prepared. The government adopted this basis as a result of its simplicity and the fact that it enables the officers to perform with confidence so that a lot of laymen are called upon to perform accounting functions in government.

**Advantages of Cash Basis**1. It is very simple to understand
2. It is easy to operate.
3. It is factual
4. It saves time
5. It enables the officer to perform with confidence
6, Debtors and creditors are eliminated and therefore there are no cumbersome accounting entries.
7. The cost of fixed assets are written off in the year of purchase which also results in less entries.

**Disadvantages of Cash Basis**I. It takes unrealistic view of financial transactions e.g.a spending transaction passes through the following stages.

2. It does not depict an accurate picture at the end of the period
*3.* It cannot be used for private economic decision making
4. It does not obey the matching concept.
5. Valuation of stock at the end of each for year may be cumbersome
6. It does not make provision for depreciation of fixed asset in every financial year.

**Modified Cash Basis**

Under the modified cash basis, books of accounts are left for about 3 months after the year in order to capture substantial amount of income relating to the previous year and also make substantial amount of payments relating to the previous year.

1. **Accrual Basis**

Under this basis, financial transactions are recorded as soon as contract is sealed and consideration moves from the offeree to the offeror irrespective of the fact that the actual receipt of cash in respect of this transaction might occur in future accounting periods. This is the basis under which the financial transaction of government parastatals, government owned companies and the organized private sectors prepare their financial statement.

**Advantages of Accrual Basis**

(a) It makes allowance for the diminution in the value of assets used to generate the revenue of an enterprise.
(b) It is aligned with the matching concept
(c) It could be used for both economic and investment decision making
(d) It takes realistic view of financial transactions
(e) It reveals an accurate picture of the state of financial affairs at the end of the period

**Disadvantages of Accrual Basis**(a) It does not permit easy delegation of work
(b) it is very difficult to understand

**Modified Accrual Basis**
Under this basis the organization employs the concept of accrual as well as cash basis where possible and the financial statement will be consolidated at the end of the year.

1. **Commitment Basis**

Under this basis, financial transactions are recorded right from the board room where management takes decision to expend money.

The government budgetary procedure is commitment accounting in nature as funds are earmarked for different purpose. This is a book keeping method which captures information about a financial transaction when it is ordered; contracted or agreement entered for the provision of goods or services in the future. A liability will not be recognized until delivery is made, but the government is committed to meeting the obligation as soon as delivery is completed. The method recognizes expenditures at the time obligation or commitment is entered and employs subsidiary, or memorandum books to record such transactions as relate to local purchase orders, job orders and contracts.

**Advantages of Commitment Basis**
(a) It aligns with the matching concept
(b) It is an aid to financial control
(c) A separate payment tabulation is available when required
(d) Adjustment occurring when actual expenditures have been obtained do not affect the final accounts.

(e)It takes a realistic view of financial transactions

**Disadvantages of Commitment Basis**(a) The system involves extra work
(b) Over expenditure is more under commitment basis in the expectation that government may finally release fund to settle the legal obligation. Balance which ought to have lapsed in the vote book at the end of the year may he spent by issuing local purchase orders to exhaust the votes.

**5.5. Financial Reports (Interim and Annual)**

 **Federal Government Final Accounts**

The final Accounts of the Federal Government can be obtained in four different documents. These are:

1. **The Estimate** (the estimated revenue and expenditure of the Federal Government for the oncoming year. In the preparation of a realistic estimation, emphasis is placed on past information contained in last year’s actual financial statements.
2. **The Official Gazette** (This is the source of information that is compiled from the Accountant General’s records. The weakness of this source is that it is usually prepared in arrears of about three to six months).

**The Annual Report of the Accountant-General** (This is the most detailed source as it contains a number of Financial Statements. The report is prepared and signed by the Accountant-General and addressed to the Minister of Finance).

 a. The narrative reports on the Federal Government Finance

b. The State of Financial Affairs of the Federal Government

c. Data, Tables, Time Series, Extracts etc

d. Remarks on Promotion, Transfer, and Resignation in the Federal Civil Service.

 e. The Financial Statements: One of the Primary responsibilities of the Accountant – General is to prepare information about finance of the government in form of Financial Statements. The main components of the financial statements are statement of public debt, statement of external public debt, statement of funded loans, statement of unfunded loans, statement of assets and liabilities, statement of CRF, statement of revenue, statement of current expenditure, statement of development fund, statement of treasury fund and statement of special and trust fund. Others are statement of loan and investment, statement of loss of government fund, statement of revenue/claims abandoned for the year, statement of guarantee of the FG of loans to statutory corporation and statement of arrears of revenue.

**CHAPTER- SIX**

1. **Preparation of Operating Budgets**

The operating budget is a detailed statement showing all the operational expenses to be incurred and incomes to be generated during a particular period of time. Operating expenses such as expenses on raw material purchases, processing cost, interest on a loan, the salary of the staff, maintenance of the office, administrative expense is considered for the purpose of operating budget. The operating income such as revenue from operations and income by sale of the by-product is considered for the purpose of operating budget.

Depending on the size, structure, and nature of the organization, operating budget may be sub-divided for the purpose of detailed understanding of the budget.

operating Budget is prepared by considering many factors and assumptions. Below are some of the factors which are used for preparing a budget for the organization.

1. **Past trend in sales**
	* + 1. Past trends of the purchase price of the raw material
			2. Changes in the tax laws and government regulation with respect to the industry
			3. Overall economy

Based on the above factors, sales or income budget is developed at first. The reason is all the expenses shall be based on the sales projection made by the organization.

Once the budget for sales or income is developed, the expense budget is prepared. The expenses have to be estimated based on the sales and the past trends in the tax regulations, interest rates on borrowing. There are three types of expenses;

1. **Variable cost** – these cost changes with the change in sales.
2. **Fixed cost** – the fixed overheads which remain fixed such as rent of factory or machinery is fixed irrespective of the production.
3. **Semi-variable cost** – these are the cost which is fixed for certain level. However, it becomes variable after reaching a certain point. For example, a minimum wage of the marketing staff is USD 2,000 and if the sales increase above a certain limit, the commission shall be based on a percentage of sales.

[Financial Accounting](https://efinancemanagement.com/financial-accounting) helps in developing the operating budget in many ways.****

* 1. **. Cost Estimation**
1. Cost estimating is the predictive process used to quantify, cost, and price the resources required by the scope of the project, to better manage budgets and deliver projects that do not exceed the identified scope, and that are on time throughout the development process.
The need to solidify the estimation process can be seen in four areas:
1. State financial plan
2. Creation of public satisfaction and a positive response
3. Project control
4. Problems currently being encountered
**The state financial plan** is affected as cost estimates are used to obtain and allocate funding for the overruns of the estimated project costs. This leads to the second reason for the need for cost estimates: influencing public opinion.
**Public satisfaction** is increased if transportation projects show and prove to the general public that they are timely and within budget. Public declaration of the estimated cost of projects needs to be thoughtfully provided only after care is taken to produce a well-documented, quality estimate.
**Project control** relies on cost estimates to help keep projects within the appropriate fiscal boundaries. Although not necessarily a “check and balance” format, the existence of the original estimate will keep the project from growing and expanding beyond its spending limit.
**As projects encounter problems**, and their estimates come “under fire,” great scrutiny is given to the project and its associated estimates. The ability to confront and solve problems and obstacles relies in large part on the quality of the estimate and the documentation, which, if done properly, will provide critical support to project.

The sequence of estimates throughout the life of a typical project is given below.
**1. Preliminary** The quick estimate needed at the project identification stage, with no design available, and only the barest statement of capacity or size.
**2. Feasibility** Estimates or alternative schemes under consideration in the feasibility study stage of the project. The essential property of these estimates is that they are directly comparable with each other and therefore base estimates could suffice so long as the same estimating technique and price base data are used. The differences between alternatives will not necessarily be absolute and the danger of their use for forward budgeting must be avoided.
**3. Design**The cost estimate for the selected scheme using the design (usually conceptual) and specifications resulting from the design study and forming part of the project definition report. This estimate would provide the figures for capital cost, cash flow and currency requirements which would then be used in viability calculations for the project and in the submission for donor aid, where appropriate. It must be a cash estimate.
**4. Commitment**The proposal estimates as modified and approved for financing, together with the associated modifications to the project definition and/or the program. This must be a cash estimate, and will provide the basis for the cost control of the project.
**5. Pre-tender**A refinement of the approved estimate in the light of further design work done during the tender period and using the information given in the enquiry documents. This estimate therefore would use the same information as is available to the tendering contractors and should be a good
basis for the assessment of bids.
**6. Post contract award**A further refinement of the approved estimate in the light of the contract(s) awarded. It includes redistribution of the monies within the approved total to allow more effective cost monitoring of the project to completion.
**7. Achieved cost**A record of the actual costs achieved in order to review the cost performance of the project and for project evaluation. It should include a reconciliation of the actual use of contingencies and of the use of tolerance for dealing with major risks.
**THE ESTIMATOR**1. **The estimator must have relevant** experience in the type of project envisaged and, wherever possible, in the costs and productivities of construction work at the proposed construction and main supply locations.

2. **The estimator must** have a close working relationship with the project design organization and will normally be part of that organization.

3. **It is highly desirable that the same estimator** is used on all the estimates required during the life of the project and is responsible for the subsequent cost monitoring and control.
4. **The estimator should be accountable for his estimate and should be involved in the** subsequent monitoring of project costs against it. He should be responsible success.

**6.2 Cost Allocation => Crosswalk**

Cost allocation is the process of identifying, accumulating, and assigning costs to costs objects such as departments, products, programs, or a branch of a company. It involves identifying the costs objects in a company, identifying the costs incurred by the cost objects, and then assigning the costs to the cost objects based on specific criteria.

 When costs are allocated in the right way, the business is able to trace the specific cost objects that are making profits or losses for the company. If costs are allocated to the wrong cost objects, the company may be assigning more resources to cost objects that do not yield as much profits as expected.

### **Types of Costs**

There are several types of costs that an organization must define before allocating costs to their specific cost objects. These costs include:

#### 1. Direct costs

Direct costs are costs that can be attributed to a specific product or service, and they do not need to be allocated to the specific cost object. It is because the organization knows what expenses go to the specific departments that generate profits and the costs incurred in producing specific [products or services](https://corporatefinanceinstitute.com/resources/knowledge/other/products-and-services/). For example, the salaries paid to factory workers assigned to a specific division is known and does not need to be allocated again to that division.

#### 2. Indirect costs

Indirect costs are costs that are not directly related to a specific cost object like a function, product, or department. They are costs that are needed for the sake of the company’s operations and health. Some common examples of indirect costs include security costs, administration costs, etc. The costs are first identified, pooled, and then allocated to specific cost objects within the organization.

Indirect costs can be divided into fixed and variable costs. Fixed costs are costs that are fixed for a specific product or department. An example of a fixed cost is the remuneration of a project supervisor assigned to a specific division. The other category of indirect cost is variable costs, which vary with the level of output. Indirect costs increase or decrease with changes in the level of output.

#### 3. Overhead costs

Overhead costs are indirect costs that are not part of manufacturing costs. They are not related to the labor or material costs that are incurred in the production of goods or services. They support the production or selling processes of the goods or services. Overhead costs are charged to the expense account, and they must be continually paid regardless of whether the company is selling any good or not.

Some common examples of overhead costs are rental expenses, utilities, insurance, postage and printing, [administrative and legal expenses](https://corporatefinanceinstitute.com/resources/knowledge/accounting/what-is-sga/), and research and development costs.

### **Cost Allocation Mechanism**

The following are the main steps involves when allocating costs to cost objects:

#### 1. Identify cost objects

The first step when allocating costs is to identify the cost objects for which the organization needs to separately estimate the associated cost. Identifying specific cost objects is important because the organization cannot allocate costs to something that is not yet known.

The cost object can be a brand, project, product line, division/department, or a branch of the company. The company should also determine the cost allocation base, which is the basis that it uses to allocate the costs to cost objects.

#### 2. Accumulate costs into a cost pool

After identifying the cost objects, the next step is to accumulate the costs into a cost pool, pending allocation to the cost objects. When accumulating costs, you can create several categories where the costs will be pooled based on the cost allocation base used. Some examples of cost pools include electricity usage, water usage, square footage, insurance, [rent expenses](https://corporatefinanceinstitute.com/resources/knowledge/accounting/rent-expense/), fuel consumption, and motor vehicle maintenance.

### **What is a Cost Driver**?

A cost driver causes a change in the cost associated with an activity. Some examples of cost drivers include the number of machine-hours, the number of [direct labor](https://corporatefinanceinstitute.com/resources/knowledge/accounting/direct-labor/) hours worked, the number of payments processed, the number of purchase orders, and the number of invoices sent to customers.

### **Benefits of Cost Allocation**

The following are some of the reasons why cost allocation is important to an organization:

#### 1. Assists in the decision-making process

Cost allocation provides the management with important data about cost utilization that they can use in making decisions. It shows the cost objects that take up most of the costs and helps determine if the departments or products are profitable enough to justify the costs allocated. For unprofitable cost objects, the company’s management can cut the costs allocated and divert the money to other more profitable cost objects.

#### 2. Helps evaluate and motivate staff

Cost allocation helps determine if the cost assigned to specific departments returns the [expected revenues](https://www.bloomberg.com/markets/earnings-calendar/us). If the cost object is not profitable, the company can evaluate the performance of the staff members to determine if a decline in productivity is the cause of the non-profitability of the cost objects.

On the other hand, if the company recognizes a specific department as the most profitable department in the company, the employees assigned to that department will be motivated to work hard and stay ahead of the rest in terms of performance.

**6.3 Historical Analysis of Expenditures**

Public expenditure in industrialized countries stands at very high levels. In Europe, in particular, almost half of GDP is going through the hands of government. At the same time, the data exhibit enormous cross-country divergence in terms of both expenditure levels and trends in recent decades. Many countries reported public spending well above **50% of GDP at some point over** the past 25 years, with maxima above 60% in the Nordic countries and Belgium. By contrast, a number of countries have never reported spending ratios in excess of 40% of GDP, notably the US, Japan, Australia or Switzerland. Moreover, in recent years, a number of countries have reversed very high spending ratios through ambitious expenditure reforms while others also retreated from earlier peaks, albeit in a much timid fashion.

From a historic perspective, it is striking that, one century ago, public expenditure absorbed only about 10% of GDP, with most spending going to the military and public investment. With World War I, the expenditure ratio rose to over 20% of GDP and further to somewhat less than 30% by the early 1960s. This was the period when (apart from military spending during World War II), health, education and other goods and services began to be financed publicly. After this, public spending growth accelerated when the modern welfare state was created and expanded. This increase affected all advanced economies, though to varying degrees. By the early 1980s, average public spending reached about 45% of GDP—four times as much as a century earlier. (For more details, see Tanzi and Schuknecht 2000 and Peacock and Wiseman 1961.)

Since then, however, expenditure developments were rather diverse across industrialized countries as more and more countries started reforming their public finances and reducing public expenditure levels relative to GDP. The first countries where public expenditure peaked and subsequently started to decline were Luxembourg and the United Kingdom in 1981, followed by Ireland (1982), Belgium and the Netherlands (1983) and Australia and New Zealand (1985). In a further large group of countries, public spending continued to increase until the early to mid-1990s and then started coming down. Only Greece and Portugal experienced their expenditure peaks in the past five years.

 **CHAPTER-SEVEN**

**7. CAPITAL BUDGETING**

**Introduction**

Capital budgeting is vital in marketing decisions. Decisions on investment, which take time to mature, have to be based on the returns which that investment will make. Unless the project is for social reasons only, if the investment is unprofitable in the long run, it is unwise to invest in it now. Often, it would be good to know what the present value of the future investment is, or how long it will take to mature (give returns). It could be much more profitable putting the planned investment money in the bank and earning interest, or investing in an alternative project.

**Chapter objectives**

At the end of this chapter the students will be able to:

* understand the importance of capital budgeting in marketing decision making
* explain different types of investment project
* understand the economic evaluation of investment proposals
* know the concept and calculation of net present value and internal rate of return in decision making
* explain advantages and disadvantages of the payback method as a technique for initial screening of two or more competing projects.

**7.1. Capital Improvements Program**

 **Capital improvement programs can help communities link the annual budget for new or improved public facilities to the long-term goals of the municipal plan. It can also provide coordination between municipally funded improvements and private sector development activities.**

The process for creating a capital budget and program typically includes the following steps.
**1. Capital Inventory.** The process generally begins by creating a complete inventory of the municipality’s
land, buildings, equipment, and so on. This is often based on an annual accounting of capital assets.

**2. Project Identification.** Once the inventory is established, the next step is to identify potential capital projects to be undertaken during the upcoming six years. Sources for identifying potential projects include the municipal plan, department heads, planning and conservation commissions, and task forces or citizen groups.

**3. Cost Estimates**. The next step is to prepare and/or verify cost estimates for identified projects. Department heads are the obvious sources for this information, but it also may be helpful to contact suppliers and professionals, such as engineers, architects, or landscapers, who can help develop accurate cost estimates.

**4. Initial Master List.** Once cost estimates have been verified, the next step is to include and tabulate all identified projects into a single master list. This often takes the form of a matrix with projects listed in separate rows and the six-year planning period set out in columns across the top. Annual expenditures for the project identified in a particular row are entered into each
column for specified years.

**5. Tabulation of Debt Service.** While the initial list of projects is being prepared, it’s also a good time to tabulate the municipality’s current long-term debt and associated debt service payments for each year of the six-year planning period. The outstanding balance for each bond
or note should be reported, and the annual interest and principal payments for each year should be determined.

**6. Draft CIP.** The next step is to use all this information to prepare a draft five -year capital budget and program of related expenditures, including all expenditures for existing debt service. The list of capital projects should be carefully reviewed. Low-priority projects can be deleted
or postponed to future years.

**7. Adoption.** The capital budget and program may adopt, amended, or repealed by legislative body following one or more warned public hearings.

 **7.2. capital budgeting**

A capital investment project can be distinguished from current expenditures by two features:

a) such projects are relatively large
b) a significant period of time (more than one year) elapses between the investment outlay and the receipt of the benefits.

As a result, most medium-sized and large organizations have developed special procedures and methods for dealing with these decisions.

A systematic approach to capital budgeting implies:

a) the formulation of long-term goals

b) the creative search for and identification of new investment opportunities

c) classification of projects and recognition of economically and/or statistically dependent proposals

d) the estimation and forecasting of current and future cash flows

e) a suitable administrative framework capable of transferring the required information to the decision level

f) the controlling of expenditures and careful monitoring of crucial aspects of project execution

g) a set of decision rules which can differentiate acceptable from unacceptable alternatives is required.

**7.1.1. The classification of investment projects**

**a) By project size**

* **Small** projects may be approved by **departmental managers**. More careful analysis and Board of Directors' approval is needed for **large projects of, say, half a million dollars or more.**

**b) By type of benefit to the firm**

* an increase in cash flow
* a decrease in risk
* an indirect benefit (showers for workers, etc.).

**c) By degree of dependence**

* mutually exclusive projects (can execute project **A or B**, but not both)
* complementary projects: taking project **A** increases the cash flow of project **B**.
* substitute projects: taking project **A** decreases the cash flow of project **B**.

**d) By degree of statistical dependence**

* Positive dependence
* Negative dependence
* Statistical independence.

**e) By type of cash flow**

· Conventional cash flow: only one change in the cash flow sign

· Non-conventional cash flows: more than one change in the cash flow sign,

**7.1.2. The economic evaluation of investment proposals**

The analysis stipulates a decision rule for:

I) accepting or
II) rejecting

investment projects

**The time value of money**

Recall that the interaction of lenders with borrowers sets an equilibrium rate of interest. Borrowing is only worthwhile if the return on the loan exceeds the cost of the borrowed funds. Lending is only worthwhile if the return is at least equal to that which can be obtained from alternative opportunities in the same risk class.

The interest rate received by the lender is made up of:

**i) The time value of money**: the receipt of money is preferred sooner rather than later. Money can be used to earn more money. The earlier the money is received, the greater the potential for increasing wealth. Thus, to forego the use of money, you must get some compensation.

**ii) The risk of the capital sum not being repaid**. This uncertainty requires a premium as a hedge against the risk, hence the return must be commensurate with the risk being undertaken.

**iii) Inflation: money may lose its purchasing power over time**. The lender must be compensated for the declining spending/purchasing power of money. If the lender receives no compensation, he/she will be worse off when the loan is repaid than at the time of lending the money.

a) **Future values/compound interest**

Future value (FV) is the value in dollars at some point in the future of one or more investments.

**FV** consists of:

i) the original sum of money invested, and
ii) the return in the form of interest.

The general formula for computing Future Value is as follows:

**FV**n = *Vo (l + r*) *n*

where

Vo is the initial sum invested
r is the interest rate
n is the number of periods for which the investment is to receive interest.

Thus, we can compute the future value of what Vo will accumulate to n years when it is compounded annually at the same rate of r by using the above formula.

Now attempt exercise 6.1.

**Exercise 6.1 Future values/compound interest**

i) What is the future value of $10 invested at 10% at the end of 1 year?
ii) What is the future value of $10 invested at 10% at the end of 5 years?

We can derive the Present Value (PV) by using the formula:

**FV**n = **V**o **(I + r)** n

By denoting **V**o by **PV,** we obtain:

**FV**n**= PV (I + r)** n

by dividing both sides of the formula by **(I + r)** n we derive:



Rationale for the formula:

As you will see from the following exercise, given the alternative of earning 10% on his money, an individual (or firm) should never offer (invest) more than $10.00 to obtain $11.00 with certainty at the end of the year.

Now attempt exercise 7.2

**Exercise 7.2 Present value**

i) What is the present value of $11.00 at the end of one year?
ii) What is the PV of $16.10 at the end of 5 years?

b)**Net present value (NPV)**

The NPV method is used for evaluating the desirability of investments or projects.





where:

Ct = the net cash receipt at the end of year t
Io = the initial investment outlay
r = the discount rate/the required minimum rate of return on investment
n = the project/investment's duration in years.

The discount factor r can be calculated using:



Examples:







Decision rule:

If NPV is positive (+): *accept the project*
If NPV is negative (-): *reject the project*

Now attempt exercise 6.3.

**Exercise 6.3 Net present value**

A firm intends to invest $1,000 in a project that generated net receipts of $800, $900 and $600 in the first, second and third years respectively. Should the firm go ahead with the project?

Attempt the calculation without reference to net present value tables first.

c) **Annuities**

*N.B.* Introduce students to annuity tables from any recognized published source.

A set of cash flows that are equal in each and every period is called an annuity.

Example:

|  |  |
| --- | --- |
| **Year** | **Cash Flow ($)** |
| 0 | -800 |
| 1 | 400 |
| 2 | 400 |
| 3 | 400 |

PV = $400(0.9091) + $400(0.8264) + $400(0.7513)

= $363.64 + $330.56 + $300.52

= $994.72

NPV = $994.72 - $800.00

= $194.72

Alternatively,

PV of an annuity *=* $400 (PVFAt.i) (3,0,10)

= $400 (0.9091 + 0.8264 + 0.7513)

= $400 x 2.4868

= $994.72

NPV = $994.72 - $800.00

= $194.72

d)**Perpetuities**

A perpetuity is an annuity with an infinite life. It is an equal sum of money to be paid in each period forever.



where:

*C* is the sum to be received per period
*r* is the discount rate or interest rate

Example:

You are promised a perpetuity of $700 per year at a rate of interest of 15% per annum. What price (PV) should you be willing to pay for this income?



= $4,666.67

A perpetuity with growth:

Suppose that the $700 annual income most recently received is expected to grow by a rate G of 5% per year (compounded) forever. How much would this income be worth when discounted at 15%?

Solution:

Subtract the growth rate from the discount rate and treat the first period's cash flow as a perpetuity.







= $735/0.10

= $7,350

e)**The internal rate of return (IRR)**

· The IRR is the discount rate at which the NPV for a project equals zero. This rate means that the present value of the cash inflows for the project would equal the present value of its outflows.

· The IRR is the break-even discount rate.

· The IRR is found by trial and error.

 *where* *r = IRR*

IRR of an annuity:



where:

**Q (n, r)** is the discount factor
**Io** is the initial outlay
**C** is the uniform annual receipt (C1 = C2 =.... = Cn).

Example:

What is the IRR of an equal annual income of $20 per annum which accrues for 7 years and costs $120?



= 6

From the tables = 4%

**The payback period (PP)**

The CIMA defines payback as 'the time it takes the cash inflows from a capital investment project to equal the cash outflows, usually expressed in years'. When deciding between two or more competing projects, the usual decision is to accept the one with the shortest payback.

Payback is often used as a "first screening method". By this, we mean that when a capital investment project is being considered, the first question to ask is: 'How long will it take to pay back its cost?' The company might have a target payback, and so it would reject a capital project unless its payback period were less than a certain number of years.

Example 1:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** | **0** | **1** | **2** | **3** | **4** | **5** |
| Project A | 1,000,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |

For a project with equal annual receipts:





= 4 years

Example 2:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Years** | **0** | **1** | **2** | **3** | **4** |
| Project B | - 10,000 | 5,000 | 2,500 | 4,000 | 1,000 |

Payback period lies between year 2 and year 3. Sum of money recovered by the end of the second year

= $7,500, i.e. ($5,000 + $2,500)

Sum of money to be recovered by end of 3rd year

= $10,000 - $7,500

= $2,500



= 2.625 years

Disadvantages of the payback method:

· It ignores the timing of cash flows within the payback period, the cash flows after the end of payback period and therefore the total project return.

· It ignores the time value of money. This means that it does not take into account the fact that $1 today is worth more than $1 in one year's time. An investor who has $1 today can either consume it immediately or alternatively can invest it at the prevailing interest rate, say 30%, to get a return of $1.30 in a year's time.

· It is unable to distinguish between projects with the same payback period.

· It may lead to excessive investment in short-term projects.

Advantages of the payback method:

· Payback can be important: long payback means capital tied up and high investment risk. The method also has the advantage that it involves a quick, simple calculation and an easily understood concept.