# Value Investing FOR <br> DUMMIES ${ }^{\circ}$ <br> 2ND EDITION 

by Peter J. Sander and Janet Haley

Wiley Publishing, Inc.

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## Dedication

I dedicate this book to do-it-yourselfers and especially do-it-yourself investors everywhere, and to those who recognize the value of knowing what questions to ask even if they don't do it all themselves. And, it would be impossible to do a project like this without recognizing the master himself, Warren Buffett, who has so clearly demonstrated that successful investing is a matter of wisdom, not just information or knowledge, and most certainly not guesswork.

- Peter Sander


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- Peter Sander


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Value Investing For Dummies, 2nd Edition

## Introduction

Markets go up; markets go down. It doesn't matter whether you measure it statistically or look at a chart. You can see it easily. We've seen more volatility during the past 10 years than ever before. And our hearts jump into our throats every time we hear about one of those 200-point sell-offs. Right?

You lived through the Asian market crisis of the late 1990s. You lived through the post-2000 dot-com bust. Heck, if you're old enough, you lived through the famous October 19, 1987 "Black Monday" debacle. It's all part of investing. Right?

Sure, like most other investors, you probably lost some money during these events - on paper, anyway. Sour markets have a way of putting a damper on everything. But do all stock prices drop? Especially in the long term? Hardly. Average stock investing performance, over the long haul, achieves roughly an 11 percent return per year.

Some investments do a lot better than that. And some will even take you through the down cycles with little to no heartache.

And what investments are those? They are investments in truly good businesses with enduring and growing value. Starbucks isn't just about coffee; it continues to change the market for an informal business and pleasure "hangout" and is now shifting focus to overseas expansion. Procter \& Gamble continues to dominate the grocery shelf. A lesser known used car retailer called CarMax threatens, with an excellent brand and business model, to dominate the used car space, though today its market share is less than 2 percent.

Bottom line: The best businesses that have the best brands, best assets, best business models, best management teams, and best business strategies continue to earn, earn, and earn some more. And if you, as an investor, (1) recognize the value and (2) buy them cheap, you're setting yourself up for better returns than the market average. And that, as we'll see, is a very, very good thing.

Which leads us to where this book is headed. Value Investing For Dummies, second edition, takes you on a journey back to the tried-and-true principles of valuing a stock as one would value a business. (After all, how can one disconnect the two, as a share of stock is a share of a business. Right?) When
the price, or value, of a stock matches the value of a business, the value investor considers buying it. When the price of a stock is less than the value of the business, the value investor warms and may get excited about buying it. It may be a true buying opportunity. And when the price of the stock skyrockets beyond the value of the company, yes, the value investor sells it or avoids it altogether.

It's good old-fashioned investing. Believe it or not, markets do undervalue businesses, and do it frequently. For a variety of reasons, markets are far from perfect in valuing companies. And furthermore, because there is no one secret or magic formula for valuing a business, the true value of a stock is a matter of difference of opinion anyway. All of which serves to make investing more fun - and profitable - for the prudent and diligent investor who sorts through available information to best understand a company's value.

A value investor who applies the principles brought forth in this book is essentially betting with the house. The odds, especially in the long term, are in your favor. Value investing is an approach to investing, an investing discipline, a thought process; it is not a specific formula or set of technologies applied to investing. It is art and science. It is patience and discipline. Done right, it increases the odds but doesn't guarantee victory. For you active traders, it's a slower ride. But the value approach lets you share in the growth of the American (and world) economy, while also letting you sleep at night.

## How to Use This Book

This book presents the principles and practices of value investing. As with all investing books, you probably shouldn't follow this material to the letter, but rather incorporate it into your own personal investing style. Even if you don't adopt most of the principles and techniques described here, your awareness of them will most likely make you a better investor.

This value investing reference visits tools that all but the most inexperienced investors have heard of: annual reports, income statements, balance sheets, P/E ratios, and the like. Value Investing For Dummies, second edition, uses these tools to create a complete, holistic investing approach. You'll learn why annual reports and information contained therein are important, and how to use that information to improve your investing. And it's hardly just annual reports. Other information sources, both online and offline, can greatly enhance your knowledge of a company's prospects and your proficiency as a value investor.

## What 1s Assumed About You

Value Investing For Dummies, second edition, assumes some level of familiarity and experience with investments and investing. The book assumes you understand what stocks are and how markets work, and have already bought and sold some stocks. If you're starting completely from scratch, you may want to refer to Eric Tyson's Investing For Dummies or a similar introductory treatment of the investing world. Not that what's presented here is that "hard" or scary, it will just flow more smoothly with a base level of knowledge.

## How This Book 1s Organized

Like all For Dummies books, this book is a reference, not a tutorial, which means that the topics covered are organized in self-contained chapters. So you don't have to read the book from cover to cover if you don't want to. Just pick out the topics that interest you from the Table of Contents or Index and go from there. What follows is a breakdown of what the book covers.

## Part 1: The What and Why of Value Investing

Part I explains what value investing is (and what it isn't) to give a clear picture to the reader and provide a framework for the rest of the book. Value investing is put in context with a discussion of markets, market history, and overall performance. We explore the history of the value investing approach and the fantastic success of some who practice it, notably the master himself, Warren Buffett.

## Part 11: Fundamentals for Fundamentalists

Part II opens the value investor toolbox by explaining some basic investing math principles and how understanding that math can make you a better investor. Next is a discussion of key information and information sources for the value investor. Then comes the detail, with a tour of the financial statement landscape, including balance sheets, income, and cash flow statements. Ratios and ratio analysis are explored as a way to make more sense of the financials. Finally, you'll get a few tips on how to detect hidden agendas that may lie in financial figures and statements.

## Part 111: So You Wanna Buy a Business?

Out of the frying pan and into the fire. Next come the "meat and potatoes" of how to assess or appraise the value of a company and relate that value to the stock price. Proven business value assessment methods including intrinsic value, discounted cash flow analysis, and the strategic profit formula are examined. Next, on the principle that investors shouldn't live by numbers alone, is a discussion of strategic intangibles - so-called "soft" factors that serve as leading indicators for the "hard" numbers. To bring these tools and techniques together into a system, we'll look at the example set by the master, Warren Buffett. With these principles in mind, the next step is to look at price, to see whether a company really is a good value for the price.

## Part IV: Becoming a Value Investor

This part takes a practical look at investment products - mutual funds, closed ended funds, REITs, and exchange traded funds (ETFs) - and how the value investor may use these products. Then, the focus shifts to setting goals and developing your own value investing style. We examine different value investing themes and then suggest practical approaches to implementing the value investing thought process, not only for buying but also during ownership and, eventually, the selling decision. At the end of the day, it's all about figuring out what works best for you.

## Part U: The Part of Tens

For your use and enjoyment you'll find some favorite top-ten lists in this section: Ten characteristics of a good business and stock value, ten indications of an overvalued business, and ten habits of "highly successful" value investors.

## Icons Used in This Book

Throughout the book, bits of text are flagged with little pictures called icons. Here's what they look like and what they mean:

Just as the name suggests: a piece of advice.

The dark side of a tip: advice on what to avoid or watch for.

Deeper explanation of a topic or idea. You can usually skip text flagged with this icon if you want to.

Not a must-read, but fun, relevant facts to enjoy as you drill through this book.

If you forget everything else you read, keep this information in mind.

# Part <br> <br> The What and Why <br> <br> The What and Why of Value Investing 

 of Value Investing}

## In this part . . .

we hope to give a clear picture of what value investing is and isn't and also provide a framework for the rest of the book. We put value investing in context with a discussion of markets, market history, and overall performance, with an emphasis on market nature - key market behaviors and quirks that repeatedly, through history, provide opportunities for the value investor. We explore the history of the value investing approach and the fantastic success of some who practice it, notably the master himself, Warren Buffett.

## Chapter 1

## An Investor's Guide to Value Investing

## In This Chapter

$>$ Recognizing the value investing style - what it is and isn't

- Bottom-line value investing principles
$>$ Comparing value investing to other investing styles
$>$ Deciding if you're a value investor

$N$o doubt, if you're reading Value Investing For Dummies, somewhere during your investing career you heard something about value investing. You heard about it from your retired next-door neighbor. You heard about it as "what Warren Buffett does." You saw a mutual fund describe itself as a "value-oriented" fund.

You have a pretty good idea what the word "value" means in ordinary English. It's not an altogether precise concept; the Random House Dictionary of the English Language defines it as the "relative worth, merit, or importance" of something. Okay, fine. But how does that apply to investing? What is value investing, anyway?

This chapter answers that question. The rest of this book gives you the background, tools, and thought processes to do it.

## Definitions? No Two Are Alike

Perhaps you've asked around - to friends, experienced investors, investing professionals - for definitions of "value investing." You probably got a lot of different answers. Those answers perhaps included phrases like "conservative," "long-term oriented," "the opposite of growth," "the Buffett approach," "buying stocks with a low P/E," "buying stuff that's cheap," or "buying stocks that nobody wants."

None of these is "it" entirely, but it turns out they are all part of it.
All, except the "opposite of growth," that is - and we'll get to that.
Value investing is an investing approach and style blending many principles of business and financial analysis to arrive at good investing decisions. This, too, is an imprecise definition, but it lays the groundwork for the more precise principles and style points that follow.

## What Is Value Investing?

Toward a definition, here's one you may have read in the first edition of Value Investing For Dummies. It still works:

Value investing is buying shares of a business as though you were buying the business itself. Value investors emphasize the intrinsic value of assets and current and future profits, and pay a price equal to or less than that value.

You'll quickly note key phrases: "buying a business," "intrinsic value," and "pay a price equal to or less than that value." These are explicit tenets of the value investing approach, and underlying them all is the notion of conscious appraisal - that is, the idea of a rigorous and deliberate attempt to measure business value.

You'll also notice that "price" enters the appraisal, but not until the end. Value investors only go to the stock market to buy their shares of the business. Value investors don't look at the market as an indicator of whether to invest.

With this definition of value investing as an appetizer, here's a "main course" of value investing principles.

## Buying a business

If you take nothing else away from reading this book, take away the thought process that investing in stocks is really (or should be) like buying a business.

That concept shouldn't really be that hard to grasp - after all, when you buy shares, you are buying a portion of a business, albeit in most cases a small one. This isn't to say you have to buy a larger share of the business to think of your investment as buying a business - this principle applies even if you're buying a single share.

Put differently, whether it's an espresso cart or 1,000 shares of Starbucks you want to buy, the purchase is analyzed the same way. Treat the investment as
if you were buying the business - the whole business. By buying shares, you're committing capital to that enterprise in exchange for an eventual healthy and appropriate return on that investment.

Now, some of you who got caught in the tech boom and bust may think you did exactly that. You followed a company and its story. The products were "killer apps" and everything the company did made headlines. Everybody wanted to own its products or work for the company. So you bought shares.

But did you look at business fundamentals? Intrinsic value of assets and future profit prospects? Did you understand their strategy and competitive advantages? Did you do your homework to assess whether the stock price was at or below your appraisal? Likely not. That's the difference between value investing and most other forms of investing.

## Making a conscious appraisal

If you were interested in buying a business for yourself and thought the corner hardware store looked attractive, how much would you be willing to pay for it? You would likely be influenced by the sale price of other hardware stores and by opinions shared by neighbors and other customers. But you would still center your attention on the intrinsic economic value - the worth and profit-generation potential - of that business, and a determination of whether that worth and profit justified the price, before you committed your hard-earned dough.

Value investors like to refer to this as an appraisal of the business. The business would be appraised just as one would appraise a piece of property or a prized antique. In fact, a business appraisal is deeper and more systematic than either of those two examples, as value is assigned to property or antiques mainly by looking at the market and seeing what other houses or vases of similar quality sold for. In the investing arena, there's so much more to go on. There are real facts and figures, all publicly available, upon which the investor can base a true numbers appraisal, an appraisal of intrinsic value, not just the market price.

Appraising the value, relating the value to the price, and looking for good bargains captures the essence of the value approach.

## Beyond investment analysis

You may be inclined to ask, "Isn't value investing merely 'souped up' investment analysis?" The kind of analysis done by professional Wall Street analysts?

It's a good question, and becoming a better one as the tech boom and its excesses fade into history. Analysts in those days were too focused on stock prices and the general "buzz" about an industry, and were often too influenced by their peers. Witness the hype about Amazon.com, which turned out to be far too optimistic (and indeed at the time of this writing, still is).

Basic investment analysis should start with an analysis of business fundamentals - the metrics and measures that define business performance, like profitability, productivity, and capital structure. But it needs to go further to be blended with the "story" to determine whether the fundamentals will hold up, or better yet, improve. The "boom years" investment analysis tended to overlook the fundamentals altogether, marching straight into the story. Some analysts today tend to focus too much on fundamentals, like return on equity (ROE) or "free cash flow," without understanding the story.

The value investor gets good at understanding and blending both - the fundamentals, the story, and how the two work together to define a really great business.

Chapters 6-10 dig into the mechanics of financial statements and fundamentals, while Chapters 11-15 explore how financial and marketplace fundamentals work together to define "intrinsic" and "strategic" values of a business. At the end of the day, your appraisal will touch all of these bases.


Get used to this idea: Adopting the value investing approach means becoming your own investment analyst. You may read the work of others, but you'll incorporate it into your own analysis and investing decision. As your own analyst, the pay can be good, but isn't guaranteed - it's clearly a "pay-forperformance" proposition. One thing for certain: You'll never have to buy or dry clean a Brooks Brothers suit!

## lgnoring the market

How can you spot the value investor at a cocktail party? Easy. He's the only one talking about an actual company while all others stand around discussing the stock market.

The bird of a value-investing feather is easily spotted. Focusing on the company itself, not on the market is a consistent value investing attribute. As a general rule, value investors ignore the market and couldn't care less what the Dow or NASDAQ do on a particular day. They tune out the brokers, advisers, commentators, chat-roomers, and friends (insofar as investment advice is concerned, anyway). They may, however, listen to folks in the industry, customers, or people who know a lot about competitors.

Value investors have a long-term focus. And if a value investor has done his or her homework right, what the market does to his stocks on a daily basis is irrelevant. If the company has value but the stock went down on Tuesday, a value investor feels that it's probably a result of the market misreading the company's value.

Now, to be sure, external factors can affect stock prices. Interest rates, in particular, can affect not only stock prices but also the true intrinsic value of companies, as the cost of capital rises and falls and the value of alternative investments increases (there's more in Chapters 3 and 12). So while it makes sense to pay some attention to the markets, especially in the long term, daily fluctuations, particularly when they are just that, should be ignored. The value investor can wait anywhere from a few years to forever for her investments to mature. The value investor looks for a good price with respect to value, but doesn't try to time the market. If the value is there and the price is right, it will probably be right tomorrow, too.

Some sage advice from Warren Buffett: "For some reason, people take their cues from price action rather than from values. What doesn't work is when you start doing things that you don't understand or because they worked last week for somebody else. The dumbest reason in the world to buy a stock is because it's going up."

## Value Investing Is Not...

Following the same thread of logic that holds that "we all learn best from our mistakes," sometimes the best way to define what something is is to define what it isn't. Or at least, to show why it isn't constrained to a limiting attribute like "value investing is long-term investing."

One at a time...

## Not just conservative

Most people equate the concept of "value" investing with "conservative" investing. Conservative investors focus on minimizing risk, and in many cases, maximizing short-term cash returns from investments.

Fixed income investments - such as bonds and money market funds and stocks in placid sectors like utilities and insurance companies - meet the "conservative" criteria, and there is nothing wrong with these investments. Indeed, most, but not all fit "value" criteria as well - strong intrinsic value, steady, predictable returns - at a reasonable price.

But while most conservative investments are value investments, not all value investments are conservative. It is possible to view a company like Starbucks, with incredibly strong brand features, strategic position, and growth potential, especially ten years ago, as a value investment. A conservative investment, no, but a value investment, quite possibly yes.

## Not just long term

Most value investments are long term. In fact, the Buffettonian view is to "hold forever" and look for businesses that you would want to hold forever. That's part of what makes them a good value.

But not all long-term investments are good values, and not all value investments are long term. Indeed, as business cycles shorten today, what is excellent today may look like a flash in the pan as technologies used in business and marketplace acceptance change.

Buffett deals with this problem by simply avoiding technology makers and heavily technology driven companies, for example, because (1) technology changes and (2) he doesn't understand technology in the first place. But even stable businesses see their products change and change ever more quickly. You once could buy only one "flavor" of Tide detergent, but now there are dozens, and they change all the time. And it isn't just all powder - there are liquids, concentrated liquids - you get the idea.


So when buying a business, it's good to look long term, but you must also realize that businesses and their markets change, and you should always be prepared to sell a business if assumptions change. That said, most value investments - if they are truly value investments - should be good to hold onto for more than a year, which is the IRS definition of "long term."

## Not just low P/E

Oil companies, banks, food producers, and steel companies all have had P/E ratios (price-to-earnings) below market averages. But does that mean they are good values? Sometimes, but not always. Bethlehem Steel or - ahem Enron all traded at one time or another with low P/Es. But the earnings, and the business itself, turned out not to be sustainable.

So while low $\mathrm{P} / \mathrm{E}$ can be part of the investing equation, especially when deciding when the stock price is right, it is far from the whole story.

## Not the "opposite of growth"

"Stock ABC is a growth stock, and stock XYZ is a value stock." You hear that all the time, and you'll also hear it about mutual funds, which have been neatly divvied up by stock and fund information portal Morningstar (www.morningstar.com) into neat little boxes tagged as "growth," "value," and "blend."

So value stocks aren't supposed to grow? Well, some, like your local electric utility, may prosper just fine on the business they have, and may pay you handsome returns in the form of dividends. But for most companies, growth is an integral part of the value of the business - it creates the return you desire as an investor.

So this treatment of value investing places growth in the center of the "value" stage. It is the potential for growth that defines Starbucks and its brethren as good values - the current assets and perhaps even current business levels alone don't justify the price. Indeed, this is what separates early value investing, as practiced and preached by patriarch Ben Graham, from the more recent views practiced by Buffett and many of his current disciples: Growth creates value. More on this in Chapter 3 and throughout the book.

## Cheap is a relative term

Above all, value investors seek to buy businesses at or below their appraised value. Why? Not just because they like to get a good deal - it's to provide a margin of safety.

Because any business appraisal is imprecise at best, the value investor likes to give a cushion for error, a cushion just in case things don't turn out exactly as assessed.

So does that mean that a value investor always buys a stock below its highest price? Usually, but not always. Does a value investor "bottom fish" for the lowest 52 -week price? Usually not. Why? Because it's all about price relative to value. A stock at a 52 -week low may have serious flaws in its business or marketplace acceptance.

And value investors have been known to buy stocks at 52-week highs if (and only if) even that price understated their value appraisal. Doesn't happen often, but knowing that it does happens reinforces the true value concept.

## Evaluating your values

Value can be defined in many, many ways. Kind of like pleasure, the term probably means something different to each one of us. Investors of all feathers attach different meanings - a day trader can look at a small uptick and call a stock a value at a current price. Even among value investors, the definition of the word may vary. Some additional perspective may be in order. Timothy Vick, in his book Wall Street on Sale (McGraw-Hill, 1999) provides a few definitions of value that are recognized by U.S. civil law:
$\checkmark$ Fair market value is whatever someone will be willing to pay for a similar asset - a.k.a. market value.
$\checkmark$ Book value is a company's net worth on an accounting basis, which may differ from true
financial value because of accounting rules, timing, and so on.

Liquidation value (which is very subjective and hard to predict) is what a company would be worth if all the assets were sold.
$\checkmark$ Intrinsic value is "what an appraiser could conclude a business is worth after undertaking an analysis of the company's financial position," based on assets, income, and potential growth. The value investor looks to establish intrinsic value. Only in some situations will the value investor take book or liquidation value into account.

## Comparing the Value Investing Style to Others

Value investing is more than just a set of rules or guiding principles; it is an investing style. It is an approach; a thought process; a "school" of investing; a way of investing life that governs investing behavior for at least a portion of an investor's portfolio. Just like with the definition of value investing itself, it helps to contrast the value investing style with other popular styles you may have come across.

Throughout market history, much has been made of the different approaches to investing. There are fundamental and technical analysis, momentum investing, trading, day trading, growth investing, income investing, and speculating. And there's story or concept investing, where the investor goes with whatever fad or technology is popular or sounds popular, without regard to intrinsic value or price. Add to these the academic treatments of security valuation and portfolio theory that may make it as far as institutional trading desks but seldom find their way to individual's bookshelves.

In words that Abraham Lincoln may have used, all styles make money some of the time, but no one style makes money all of the time. Each style suggests a different approach to markets, the valuation of companies, and the valuation of stocks.

Table 1-1 summarizes the differences among various investing styles.

| Table 1-1 | Comparing Investing Styles |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Investing Style | Stock Price Driven By | Relationship between Price and Value | Buy Based On | Is It Value Investing? |
| Fundamental | Financials, earnings, dividends | Price will eventually equal value | Positive or improving fundamentals | Yes. Value investors look at fundamentals, then price. |
| Technical | Patterns, trends, market psychology | Not related | Buy signals | No |
| Story | Company story, market psychology | Not related | Timeliness | Can be part of intangibles of value investing |
| Momentum | Price trend, trend strength | Not related | Trend strength, relative strength | No |
| Growth | Earnings growth, growth prospects | Value will eventually equal price | Sustained or improving growth prospects | Yes. Growth is part of the value equation. |
| Income | Cash yield vs. alternatives | Price should equal value | Yield vs. alternatives, risk profile | Sometimes. Income can be part of the value equation. |
| Speculation | Events, probability of occurrence | Usually none | Reward vs. risk | No |
| Value | Intrinsic and strategic value | Price should be at or below value | Value obtained for price | Of course |

## The Value Investing Style

We've stated it before: Value investing is a style of investing. It's an approach to investing. You, as an investor, will adopt some of the principles presented here, but not all of them. You will develop a style and system that works for you, and the knowledge available in the rest of this book will contribute to your style.

## No magic formulas

Some people buy and read investing books looking for a magic formula that guarantees success. Buy when a stock crosses its 50-day moving average and you'll profit every time, or buy when the PEG (covered in Chapter 16) is less than 1.0.

Value investing isn't quite that simple. There are so many elements and nuances that go into a company's business that you can't know them all, let alone figure out how to weigh them in your model. So rather than a recipe for success, you will instead have a list of ingredients that should be in every dish. But the art of cooking it up into a suitable value investment is up to you.

Like all other investing approaches, value investing is both art and science. It is more scientific and methodical than some approaches, but it is by no means completely formulaic. Why, if it were, everyone would use the same formula, and there would be no reason for a market! Stock prices would simply equal formulaic value. Wouldn't that be boring?

## Always do due diligence

It can't be repeated enough: The value investor must do the numbers and work to understand a company's value. Although, as explained in Chapter 5, there are information sources and services that do some of the number crunching, you're not relieved of the duty of looking at, interpreting, and understanding the results. Diligent value investors review the facts and don't act until they're confident in their understanding of the company, its value, and the relation between value and price.

Nipping closely at the heels of diligence is discipline. The value investor does the work, applies sound judgment, and patiently waits for the right price. That is what separates the masters like Buffett from the rest.

Investing is no more than the allocation of capital for use by an enterprise with the idea of achieving a suitable return. He who allocates capital best wins!

## A quest for consistency

While value investors have varying approaches to risk, some willing to accept greater risk for greater rewards, almost all like a degree of consistency in returns, profitability, growth, asset value, management effectiveness, customer base, supply chain, and most other aspects of the business. It's the same consistency you'd strive for if you bought that espresso cart or hardware store yourself.

Before agreeing to buy that hardware store, you'd probably want to know that the customer base is stable and that income flows are steady or at least predictable. If that's not the case, you would need to have a certain amount of additional capital to absorb the variations. Perhaps you'd need more for more advertising or promotion to bolster the customer base.

In short, there would be an uncertainty in the business, which, from the owner's point of view, translates to risk. The presence of risk requires additional capital and causes greater doubt about the success of the investment for you or any other investors in the business. As a result, the potential return required to accept this risk and make you, the investor, look the other way is greater.

The value investor looks for consistency in an attempt to minimize risk and provide a margin of safety for his or her investment. This is not to say the value investor won't invest in a risky enterprise; it's just to say that the price paid for earnings potential must correctly reflect the risk. Consistency need not be absolute, but predictable performance is important.

## Focus on intangibles

As you'll see in detail especially in Chapter 14, today's value investors are as intently focused on business intangibles, like brand and customer loyalty, as on the "hard" financials. It's all about looking at what's behind the numbers, and moreover, what will create tangible value in the future.

So a look at the market or markets in which the company operates is important. Looking at products, market position, brand, public perception, customers and customer perception, supply chain, leadership, opinions, and a host of others factors is important.

## Provide a margin of safety

We mentioned the idea of buying a company at a bargain price to achieve a margin of safety; that is, to provide a buffer if business events don't turn out exactly as predicted (and they won't). The value investing style calls for building in margins of safety by buying at a reasonable price. The style also suggests finding margins of safety within the business itself, for instance, so-called "moats" or competitive advantages that differentiate the business from its competitors. Finally, a large cash hoard or the absence of debt offers a financial margin of safety.

## It's not about diversification

You probably have heard on every talk show or read in every investing magazine that the key to investing success is to diversify. Diversification provides safety in numbers and avoids the eggs-in-one-basket syndrome, so it protects the value of a portfolio.

Well, yes, there's some truth to that. But the masters of value investing have shown that diversification only serves to dilute returns. If you're doing the value investing thing right, you are picking the right companies at the right price, so there's no need to provide this extra insurance. In fact, overdiversification only serves to dilute returns. That said, perhaps diversification isn't a bad idea until you prove yourself a good value investor. The point is that, somewhat counter to the conservative image, diversification per se is not a value investing technique. More about this is found in Chapter 4.

## A blended approach

If you decide to take up the value investing approach, know that it doesn't have to be an all-or-nothing commitment. The value investing approach should serve you well if you use it for, say, 80 percent or 90 percent of your stock portfolio. Be diligent, select the stocks, and sock them away for the long term as a portfolio foundation. But that shouldn't exclude the occasional possibility of trying to enhance portfolio returns by using more aggressive short-term tactics, like buying call options.

These tactics work faster than traditional value investments, which may require years for the fruits to ripen. Of course, this doesn't mean taking unnecessary or silly risks; rather, it means that sometimes investments can perform well based on something other than long-term intrinsic value. It doesn't hurt to try to capitalize on that, so long as you understand the risks
and are willing to face losses. In fact, it's best to think of a short-term trading opportunity as simply a very short-term value investment - a stock, for instance, is very temporarily on sale relative to its true value.

Likewise, it's perfectly okay to put capital away for short-term fixed returns. You don't have to work hard on "due diligence" for all parts of your portfolio at the same time.

A solid base in bonds, money market funds, or similar investments will produce returns and allow you to focus your energy on the parts of your portfolio you do want to manage more actively.

You don't have to use the value investing approach for all your investments. Depending on your goals, it's okay to mix investing styles.

## Are You a Value Investor?

By now, you've probably asked yourself the questions, "Am I patient enough?" "Do I have what takes?" "Can I do the numbers stuff?" "I'm not sure I was cut out to be an entrepreneur - how to I appraise a business?" Here are seven character traits found in most value investors:
$\checkmark$ Bargain hunter: Do you check the price of the hotel across the street before you check into your chosen hotel? Do you study detailed automobile specifications and prices before you buy? Do you look at different boxes of detergent to see how much better the deal is on the 67 -ounce size versus the 43 -ounce size? You have a key trait of a value investor, although we continue to be surprised at otherwise frugal folks who are willing to throw investment dollars at almost anything.
$\checkmark$ Do it yourselfer: Value investors want to check the numbers themselves and build their own assessments. By doing so, they develop a better understanding of the company and its fundamentals.

Like margins of safety: People who actually slow down when it rains are more likely to be better value investors.
$\checkmark$ Long-term focus: Value investors would rather make a lot of money slowly than a little flashy money in one day. Sort of like going for marriage instead of one-night stands.
$\checkmark$ Business, not price oriented: The value investor focuses on the underlying business, not the price or superficial image. They look under the hood instead of at the trim. Value investing is sometimes called inside-out investing.
$\checkmark$ Numbers oriented: Not advanced mathematics, mind you, but you can't get completely away from the numbers. Value investors are concerned about company business fundamentals and performance. For those who don't like numbers, fortunately there are software packages that do some of the computation and preparation for you. And there are screeners to semi-automate company selection. Find out more in Chapter 5.
$\checkmark$ Contrarian: Value investors are not crowd followers! Value investors stay away from what's exciting and hip quite purposefully. By definition, popular stocks aren't normally bargains.

Value investors like to make lists of selection criteria and then choose companies that match the greatest number of them. You can do the same with this list. To be a good value investor, you certainly don't need to excel in every trait! But you'll find that five or six out of the seven listed here would be a big help.

## Chapter 2

## How Value Investors View the Markets - and Vice Versa

## In This Chapter

Reviewing markets and market performance
$>$ Understanding how we got to where we are - a short market history
$>$ Looking at how today's investing climate affects value investing

$v$olatility. The "V" word. You hear about it all the time. The market is on "cruise control," and then all of a sudden, some little thing unforeseen happens to stir things up. Subprime loan defaults. Oil prices. The dot-com bubble burst. A war.

Yet, the markets have run mostly up and to the right for 25-plus years since August 1982, in fact. The S\&P 500 index - today's most widely accepted index of the broader stock market - was hovering at about 100. In mid-2007; it reached a new all-time high of 1,555.90.

But along the way, we've had our bumps. Some five trillion in investment value or "market cap" wiped out in the 2000-2001 bear market. That steadily rising S\&P 500 got "trucked" from its 2000 peak in the 1,500 s all the way back to 775 in October 2002. Was that a big deal? You bet - for all of us.

The boom years of the late 1990s and the early part of the year 2000 signified an important change and an important turning point in the history of investing. Clearly, investing, investors, and investment practices at that time had moved away from analysis of value and the business fundamentals that support it. As the percentage of stock-owning households moved from the teens in the early 1970s to 30 percent in the 1980s to beyond 50 percent in 2001, a growing portion of the investing public knew little about reading financial statements - or perhaps even where to find one!

People bought stocks based on stories they heard from colleagues at the office, friends at cocktail parties, and neighbors over the backyard fence. And the retail brokerage industry got into the game, too, offering investment analysis that seemingly supported almost anything. Add to that the proliferation of online brokerages and the reinvention of do-it-yourself investing as online trading and we got a frothy investment mix driven by people who didn't really know what they were doing.

Since then, however, value investing has caught on, and we've seen a dramatic return to investing based on fundamentals - so much so that many of the so-called "value" stocks actually became overvalued.

Add to that the dramatic shift in retirement savings from defined benefit pension plans to self-directed investment accounts - led by $401(\mathrm{k}) \mathrm{s}$ - and you have a far greater emphasis placed on long-term, fundamentals-based investing. That said, there will always be short-term "players" out there. . .

The good news is that value investing has become more popular, so there's more information and commentary out there to help the value investor. The bad news is that - well - value investing has become more popular - so it's harder to find good values.

This chapter doesn't dwell on the details of the story, but instead furnishes a contextual canvas onto which we can paint the value investing picture.

## Markets and Market Performance

The story of markets and market performance over the past decade could fill many books (and has). This book doesn't go that far, and won't belabor the different markets, stock investing details like how trades are executed, or the myriad performance indicators. There are plenty of other places to pick up this information. But, more to the point: Value investors really don't care.

Now that's a bold statement. Do value investors have an attitude problem?
Nope. The point is that value investors aren't that concerned about markets, trading processes, and trading behavior. The market is simply a place to buy a portion of a business - and perhaps not sell it for a long, long time. Value investors care little about whether an order is executed on the bid or ask price, nor do they care what regional market, ECN, or execution system was used. The transaction is an investment, a long-term investment. The market simply provides a place to acquire the investment. So the NYSE (New York Stock Exchange) or NASDAQ, market or limit order, SOES or SuperMontage, and other jargon from the world of active trading really don't matter.

So in a departure from most investing books, we don't talk much about markets. And if you're really a value investor (or want to become one), you yourself don't care about markets . . . except when they undervalue businesses.

Despite the academic rumblings of the "efficient market theory" (which holds that with good information and a sufficient number of players, markets will find the right price for a business), markets aren't perfect. There are always bargains. Stocks may be undervalued because of lack of knowledge or lack of visibility, or perhaps they're part of a group that's out of favor altogether. These stocks are selling for less than may be indicated by the value of the business or the potential of the business. So in this sense, value investors love the markets. The markets, through their imperfections, provide value investors their opportunity. As Warren Buffett says, if markets were perfect, he'd be "standing on the corner holding a tin cup."

## The Markets: How We Got Here

A stock market represents the sum total of the public's perception of the business value of the companies trading in that market. True business value, which we explore in depth in this book, is the sum total of productive assets and, in particular, what those assets produce in the form of current and future earnings. As long as companies produce more, it makes sense that their values rise. And as long as the public perception matches true value, the stock value rises in lockstep.

You can and should expect, in aggregate, that the total value of all businesses would rise roughly in line with the increase in the size of the economy, as represented by gross domestic product (GDP). This is true, and it can be argued that business value grows further through increases in productivity. The value of market-traded businesses could rise still more if the businesses grew their share of the total economy - as Borders Group and Barnes and Noble have grown their share of the total bookselling business.

If you look closely at long-term stock market growth (by most measures of return, 10-11 percent annually) you see how the long-term GDP growth of 3 to 5 percent, productivity growth of 1 to 2 percent, and long-term inflation in the 3 to 6 percent range, added together, provide an explanation for the long-term market growth rate. In the short term, depending on the value of alternative investments, such as bonds, real estate, and so on, market value may actually rise faster or slower than business value. And inflation also tampers with market valuations. So can markets grow at 20 percent per year? Not for long.


It isn't impossible for the markets to rise 20 percent in a given year or two, but such growth year after year is hard to fathom if the economy at large is growing at only 3 to 5 percent annually. But for a particular stock? Sure it's possible. If the company is building a new business or is taking market share from existing businesses, 20 percent growth can be quite realistic. But forever? Doubtful. Some call this "reversion to the mean" - sooner or later, gravitational forces will take hold and a company will cease to grow at aboveaverage rates. As an investor, you must realistically appraise when this will happen.

They say history predicts the future, so let's take a short tour of the past six decades of stock market history, with special focus on lessons for value investors.

## The "Good Old Days" The 1950s and '60s

Time was, you simply bought the market. You plunked down hard-earned money to invest in the American Way, believing it the right and most economically progressive way on the planet.

You bought for the long term. You owned General Motors, General Mills, RCA, and, if a little more adventurous, IBM or Xerox. The stock certificates sat in your safety deposit box and you most likely called your broker only if you had accumulated a little more money to invest, or if some was needed for a major purchase. A few government bonds or savings bonds may have sat alongside the stock certificates, purchased as much out of patriotic duty as for safety or investment return. Maybe you purchased a bank or S\&L CD with an eye for safety, but also for the kitchen appliance "premium."

You checked the paper at most weekly. At that time, many major newspapers didn't have stock tables because only a small slice of the population had individual investments. You watched the Dow Industrials, Rails, Utilities, and 65 Stocks nightly on the Huntley-Brinkley Report. You cared more about the averages than your individual stocks, because the market was your stocks. You got excited when General Motors reported record sales and earnings, although you probably didn't think too much about what that meant or whether it would continue. You probably bought stock in companies you worked for, and bought the company's products out of a sense of duty to support your business. Your investments grew with the economy. There was little to worry about - and little for you to do.

## Political Ties and International Dependence - The 1970s

On May 1, 1975, high fixed brokerage commissions became a thing of the past. A more competitive environment evolved with more, better, and cheaper services for individual investors. Lower commissions enabled more investors to trade in and out of stocks more frequently without worrying about high fixed commission costs. Markets became dramatically more liquid, with more investors and traders making more trades, and shifts between stock sectors, as well as in and out of the market, became much more feasible.

In the 1970s, investors and investment professionals alike started to realize that investments weren't bound to follow the economy as a whole, that certain sectors and industries were bound to do better than others. Cyclical companies and companies overly dependent on cheap, abundant resources - such as foreign oil - were no longer the best bets. It was certainly the beginning of a more complex, dynamic investing climate with an ever-expanding list of factors that influenced investing performance. The advent of NASDAQ and deregulated commissions made "main street," "do-it-yourself" investing really feasible for the first time.

But aside from annual reports and other company releases, there was little information for a value-oriented investor to use. Some individual investors began to speculate in rapidly rising resource and technology companies, but most continued to buy name-brand, blue-chip U.S. stocks. Unfortunately, some of these companies took big hits from resource supply shocks and the economic fallout that followed. Large conglomerates, the 1960s' answer to productivity gains and stability, fell apart in the 1970s. Many investors became skeptical of big corporations for the first time.

Aside from the oil embargo and the two major equity market changes, the 1970s were fairly uneventful. The Dow Jones Industrial average traded in a modest 500 point range through the decade. Businesses, dogged by political uncertainty, high interest rates, high commodity prices, and general inflation, couldn't get much traction. "Stagflation" was the buzzword of the day. Key industries, such as automobiles and steel, had to deal with foreign competition. There were few individual investors in the market, and most new entrants came in through the mutual fund route, which was just starting to gain popularity because of its simplicity, trading cost edge for very small investors, and professional managers who were able to understand the ever more complex business world.

## Globalization, Asset Shift, and Technology - The 1980s

Ronald Reagan took office in January 1980 with little market fanfare at least initially. However, the high interest rates at the time (at one point the Fed funds rate was 22 percent - compare that to the 1 percent rates of 2003-2004!) stifled any business growth and convinced most that hard assets such as real estate - though expensive to buy - were still the best choice. Interest rates were kept artificially high to combat inflation, and businesses paid the price in two ways - high interest rates and high commodity prices. The inflation factor became the biggest "swing factor" in most business decisions.

As August 1982 approached, interest rates had started downward and inflation had started to subside. President Reagan pushed through tax legislation that included a new assortment of retirement savings incentives for individuals and small businesses. Transportation deregulation, more free trade, and increased government spending in technology and defense sectors added to the story. The result was a long-awaited shift of capital from real estate and fixed assets into stocks. The "bull run," which was to last almost 18 years with a few short interruptions, had begun.

The newly rediscovered stock market grew steadily through the mid-'80s. Suddenly, picking stocks was trendy and cool, and exciting developments in technology and computers brought investing to the masses.

As the decade went on, the market continued upward to a point more than triple its modest August 1982 beginnings - until that horrible day in October 1987. Lower taxes, as well as business and consumer optimism, led the markets higher and induced people to spend more in their personal lives as well. But what were they buying? A lot of foreign goods. Buying foreign had become the trend not only for cars but everything, from clothes, food, and skis to home décor, tires, and beer.

A ballooning trade deficit resulted, and, to keep the dollar relatively strong and attractive for foreign investment, interest rates were kept high. The leftover inflation fear from a few years prior also fueled a lingering high interest rate mentality. That week in October, a particularly bad trade deficit report, high interest rates of over 10 percent for U.S. Treasury bonds, a period of almost uninterrupted stock market growth, and some speculative excess in stocks such as Digital Equipment created a volatile mix. The Dow dropped from over 2,700 points to just above 2,200 on Monday, October 19, 1987 the worst one-day percentage plunge ever.

The situation was worsened by the increased participation of novice individual investors - and the fact that the investing infrastructure had not evolved to handle such an event. Most buy-and-sell orders were manual or, at best, semi-automated. The resulting onslaught of orders overburdened the system and caused requests to sell (or buy) to be ignored altogether, adding to the panic.

Shocked investors lost their proverbial shirts. A lot of wealth disappeared, and what was left seemed to be teetering on the brink. Everyone watched the overseas markets with bated breath. Would they rush to cash in their U.S. investments and debt securities? Many investors woke to find some of their wealth had disappeared into the coffers of Japan, Hong Kong, or Singapore. There was concern that, for the first time, U.S. market results may be dictated by what happened to the Nikkei, the Hang Seng, and the German DAX. People watched CNN round the clock waiting to see what signals these markets would send. It felt like the stock market never closed - it just shifted to different parts of the world as the day went on.

Fortunately, foreign investors stood pat and did nothing to exacerbate the crisis, and the Fed followed by pumping the system with liquidity and by gradually reducing interest rates. After a six-month consolidation period, investors once again gained confidence and started back in, but this time more cautiously. Business, aided by technology, was changing fast, and government policy was changing too - for the first time really being used to prop up asset values. Even the most secure long-term investor now had to watch for such "perfect storms" that could wipe out huge chunks of market value. Conditions were still favorable for investing in businesses and even more so as interest rates and the dollar declined. But the imperative to invest rationally grew by leaps and bounds due to this event.

## Democratization and the Internet Bubble - The 1990s

Saddam Hussein kicked off the 1990s with his September 1990 invasion of Kuwait, which resulted in "Gulf War I." The investors held their breath, but by January 1991, we could all breathe easily again. But although the markets initially applauded the end of the threat, an extended period of economic dislocation followed. The boom of the 1980s had gotten tired; key industries, such as automobiles and basic manufacturing, saw a down cycle, exacerbated once again by the flood of imports. The markets really didn't get going
again until 1992 - an election year. A youthful Bill Clinton and his vision of the "information superhighway" jazzed the markets, particularly the technology sector. The vision promised faster, more efficient business and a new conduit to reach customers. Few really knew what the Internet was at that point, but it sounded pretty good.

Within a couple of years after Clinton's inauguration, the first fruits of this vision started to show. Americans could sign up on America Online to access the Internet from their homes. Businesses could network computers and operations with each other, and e-mail became a standard within corporate walls. The growth of the Internet was not just a boon to suppliers of Internet "parts," nor to up-and-coming Internet-only companies building a new electronic channel to sell existing products. It was a new opportunity for all businesses to build a new market presence and streamline or simplify operations. Every company developed a "web strategy" and executed it, at least in part, in record time. The stock market liked what it saw and recognized all companies, both suppliers and beneficiaries, of this new exciting business paradigm.

There were speed bumps in the late 1990s. In 1997, a currency crisis created by poor monetary policy in the rapidly growing Asian nations caused another short but sharp market decline. A crisis mentality took hold again in the fall of 1998 when Russia defaulted on some international debt. These sharp declines were driven by fear, world events, and, most of all, because stocks needed a breather and people had a reason to sell.

In June of 1998, the stock price of a small company called Amazon.com started to move. The market awoke to the dot.com concept, and the stock rocketed skyward. Soon, other companies started following suit. The whole game became finding companies that hadn't been "found" yet and buying stock in them before they took off. This strategy worked most of the time, egged on by huge initial public offering (IPO) run-ups for still more companies and the beginnings of a merger phase. The Internet stock boom took the rest of the market with it. Like most booms, there was some rationale - the cost of doing business would go down, sales would go up, and everyone would happily march to the bank.

This notion of business utopia combined with stock market excitement to create a self- fulfilling prophecy. Believing that things were getting better made things seem better. But there was still another force at work, shaped by the Internet. For the first time in history, individual investors had virtual real-time connections to the stock market. Free and easy access gave entry to many more market players, and the market was already in a boom to begin with.

In the late 1990 s, the last overhanging concern - and in some cases, paranoia - was the year 2000 itself, and what that particular number would mean to the computer code that now ran everything. The reality: Years of preparation and purchase of new equipment made Y 2 K a non-event. The one legacy that Y2K had created was huge demand for technology products to protect against catastrophe. So much so that businesses right after the new year started wondering where all the business had gone. At the same time, the huge capital inflow into the markets from individual investors and venture capitalists started to play out, as people began to wonder when they would start getting a return on their investments.

Once again, a perfect storm was brewing. This time it wasn't global events or interest rates - it was a fading business cycle and the realization that, although the Internet brought improvements in business fundamentals and productivity, it wasn't an "off the charts" improvement. The presence and use of the Internet did not guarantee success to any business. The Internet was a tool to execute a sound business strategy, not a business strategy in itself.

The grim result and profound lessons are recent enough to stick in the minds of all investors. There were many lessons - some repeated history and some were new. No bull market can go on forever; overvalued stocks are indeed overvalued and should be treated as such, growth in value of business assets cannot consistently exceed growth in the economy, and it takes more than a business plan to guarantee success. One other obvious realization from this period: Business cycles are becoming ever shorter, and investors need to stay on top of these cycles and invest accordingly. As the years 2001 and 2002 unfolded, investors realized that the "perfect storm" of the millennium was more damaging than anyone thought.

And in the mists of the dot-com blowup, one could barely recognize the group of old "value" names like Procter \& Gamble and Campbell Soup companies that continued to churn out profits and cash flow with relatively low $\mathrm{P} / \mathrm{E}$ ratios compared to the market. but they didn't have "sexy" products, so the markets left them behind.

Even Warren Buffett's Berkshire Hathaway declined some 50 percent during the dot-com bubble and subsequent fallout.

But this group was about to come forward in a big way during the "oughts."

## Trust Shattered and Recovered The "Oughts"

As the "perfect storm" of the millennium began to blow, other events began to release their fury on the investment world, events that would shake the very foundation of "traditional" investment behavior and practice, and make the vastly grown pool of individual investors once again wary of the markets.


#### Abstract

The fallout started in late 2000 with persistent downward momentum in the markets. Earnings results were at best flat; sales forecasts released by major companies were flat or declining. Clearly the business cycle had shifted and had started to contract with reduced demand, reduced inventories, and cancelled orders. The message had changed from steadily rising expectations to executive bewilderment and a strongly implied "things won't be what they were again for a long time," and investor confidence was spooked with predictable results.


In November 2001, Enron shocked the investment world with a revelation of a $\$ 1$ billion write-off for assets suddenly deemed worthless. No longer could we trust what had been sacred - the reporting of financial results. When Adelphia Communications and, later, the still more mainstream WorldCom went down for much the same reason, we suddenly realized a much bigger problem: Most individuals - and a large number of professional investors and analysts, for that matter - never really understood financial statements. We had forgotten that although assets may be fictitious and subjectively valued, liabilities are always real. Following the trail of how a company came up with its numbers was nearly impossible and, in the era of increased public visibility, where any earnings "miss" was sure to be punished, executives did what they could to make things look right. Investors knew the books could be cooked, but were surprised at how much.

Meanwhile, questions started to emerge about the brokerage and investment banking industries. The very companies who hired these analysts and published their advice had investment banking relationships with the companies they followed. If a firm had lent millions to a company and makes millions more selling that company's securities to investors, under what circumstances would that firm tell the public that investing in that company was a bad idea? Not many. Fewer than 10 percent of all analysts gave recommendations to sell.

Corporate earnings, naturally, declined substantially during the fallout from the bust. After overspending, especially on technology, businesses simply stopped spending. Consumers, shaken by the $9 / 11$ terrorists attacks and job instability, also cut back. Growth expectations fell, and stocks fell to lows that many thought would never be seen.

But the Fed took quick action to stimulate the economy by dropping interest rates, and a renewed focus on business fundamentals and rationale squeezed the previous fluff out of the business environment. Corporate investing decisions once again became based on ROI (return on investment) and, perhaps helped along by Congress and new accounting rules, financial reporting regained footing in reality.

The result: Markets in 2003 started a four-year trend upward, culminating in new record highs set in the summer of 2007. But unlike the previous highs set in 2000, these were based on corporate profitability - and hence, value. That's most easily shown in Figure 2-1.

Figure 2-1:
S\&P 500
Index and
P/E Ratio,
1989-2006.


Figure 2-1 from the St. Louis Federal Reserve, shows the S\&P 500 index and the Price to Earnings (P/E) ratio for the index. The chart shows that the most recent rally, starting in 2003, has truly been based on fundamentals - while the $\mathrm{S} \& \mathrm{P}$ has risen steadily, the $\mathrm{P} / \mathrm{E}$ ratio has not, and in fact, is hovering near a 17-year low. Interpretation: The most recent stock gains are based on earnings growth - that is, based on growing company value.

By the time you read this, you'll know more about how things turned out than we do at this writing juncture. We will maintain our position that companies with sound financial fundamentals and valuable assets fundamentally positioned for growth, selling at reasonable prices, will outperform in the long run.

As the "oughts" went forward into 2007, by some accounts so-called growth stocks had once again overtaken "value" stocks. According to a story in The Wall Street Journal, for the first time since 2000, a growth stock index tracked by Morningstar was up 14 percent for the first 7 months of the year, led by names like Amazon.com, vs. 8 percent for a value stock index.

## The Investing Climate Changed Forever?

The 2000-2002 market collapse and the highly visible demise of Enron and others created an era of mistrust and a quest for safety that in turn led to a boom in value oriented investing. A number of investors became ardent do-it-yourselfers - analyze the business, ignore the analysts, disintermediate the middlemen. Others went the fund route and opted for value-oriented funds. Still others went to real estate investment trusts, and more recently, ETFs as instruments to build or fill out portfolios. And some left the markets completely - and missed out on the stellar performance that followed.

Whichever path or paths were chosen, it is clear that ever since the bust people are looking at their investments more objectively with more realistic goals and appraisals of their financial and marketplace fundamentals. No longer are individual investment decisions driven by stock market behavior alone or by the advice of those individuals who work on Wall Street.

## Value investors: The new market gurus

And what about value investors as a group? Has their "stock" risen as, for so many years, they were the butt of so many comments from high-flying tech investors - "Procter \& Gamble? How boring!" Even Buffett himself took a lot of shots, many wondered publically - even journalists - whether his investing style was finished.

The reality: Value investors and portfolio managers like Buffett have resumed their former status as gurus. And for a number of years now - mention at a cocktail party that you're a value-oriented investor in the Buffett-Graham style, and you'll have a crowd of people around you asking about your "secrets" and what your favorite value plays are. Guaranteed.

## The world is flat, and other trends

The "investment style of the day" has shifted from value to growth to outright speculation, back to value, and maybe back to growth - although we don't separate "growth" and "value" to the extent that market "experts" do.

It's worth following other business and investing trends, for they should always be in the back of your mind as you evaluate companies and investments. Here are a few:

Globalization: The world is getting smaller, economically speaking. Businesses are increasing global market reach into international economies, and are increasing "supply" reach in sourcing goods and services at the lowest possible prices. Value investors need to appraise whether a business is getting the most out of these trends, taking advantage of available import and export opportunities. It also raises the question of whether to invest in overseas companies. The answer is the same as with domestic ones - if you understand the business and understand the financials, maybe yes. But understanding the business and especially the financials, with different accounting practices, may be difficult.
$\checkmark$ Shorter business cycles: It took the railroad industry 70 years to start, prosper, and begin its decline. It took the Internet industry about seven years to do the same. The point: Business changes come much faster, and what you invest in today may not even be around in 10 years you must stay on top of business and technology trends. Even if you're investing in soup or razor blades.
$\checkmark$ The Information Age: It's here, and there's no going back. The success of a business often depends on its use of information systems and technology; in fact, in many businesses, it's a key competitive advantage that forms a "moat" or barrier to entry for others. But technology leadership can be notoriously hard to assess. Often it can be through your own experience with a company - Southwest Airlines is a good example, with its industry-leading use of the Internet to enable consumers to book their own travel easily, quickly and cheaply.
$\checkmark$ Volatility: Exacerbated by the three factors just mentioned, market volatility seems to be here to stay. Markets will rise and fall in 5 or 10 percent increments in a given month - with no real change in business value to support the change. Investors must, more than ever, be patient and try to separate real business change from market change. And they will learn to use the dips to find value.

## Chapter 3

## The Value Investing Story

## In This Chapter

$>$ Understanding the history of the value investing approach

- Examining first teachings: Benjamin Graham

Looking at the greatest practitioner of all: Warren Buffett
Moving beyond Buffett: Today's leading lights of value

$V$alue investing has been around since the beginning of market and investing history. Yet, especially before 2002, it has had relatively low visibility. As more individual investors jumped on board in the late 1990s, people were more excited more by the go-go world of trading and aggressive growth investing. More intrigued by companies that make 2GB fabric- and fiber-channel storage-area network routers and switches than by companies that sell paint and insurance.

While boring to some, the value investing approach has earned strong returns for its faithful followers, often far beyond market averages for good stock pickers. Value investing has brought prosperity in healthy markets and survival during the numerous downturns throughout the twentieth century.

Value investing often deals in boring industries and requires patient examination of the nitty-gritty details of financial statements. Value analysis comes slowly, as does value investing success. Because that may be discouraging to some investors, we decided to share the journey and thoughts of the most successful value investors, Benjamin Graham, Warren Buffett, and some of those who follow their practices. Value investing got its beginnings and developed into a serious investing discipline based on their teachings and experience.

## The Patriarch: Benjamin Graham

The beginnings of value investing as a documented discipline go back to Benjamin Graham. Graham was a self-made financial analyst and investor who proved very successful through some very trying investing times (as in the Great Depression). Graham was born in 1894, excelled in academics, started with a Wall Street firm at age 20, and was managing other people's money before he was 30 . He went on to found Graham Newman, a New York investment firm, and to build a substantial investment portfolio for his clients.

Graham left a legacy for the rest of us when he went on to write the original bibles of value investing and to teach the art of value investing at Columbia University. One of his many famous students is Warren Buffett. To this day, Mr. Buffett and other Graham disciples pay the utmost respect to his pioneering leadership.

## The good books of value investing

During the Depression (1934, to be exact), Graham teamed up with one of his junior Columbia colleagues who took notes during his lectures, David Dodd, to write Security Analysis. The most recent edition of the book (McGraw-Hill, 2004) is 770 pages long and is hardly an easy read. Aimed largely at the professional investment community, the book takes apart businesses and financial statements brick by brick. The book has been in print, in several editions, since 1934, and probably has the longest legs of any investing book.

Now here's a value investment: An original 1934 first hardcover edition of the book, signed by Graham himself, was recently listed at $\$ 50,000$ ! But you can also buy a brand-new copy of the reprinted McGraw Hill 1934 "classic edition" in hardcover for about $\$ 40$.

Although Security Analysis is targeted at investment professionals, it is useful to all types of investors. According to writer/biographer Janet Lowe, the early editions are worth reading "because they show how much things change and how much they don't." Truly, Graham's recognition of the importance of fundamental business basics (assets, earnings, cash flow, risk, cost of capital, and interest rates) is timeless. Also interesting are the observations on the speculation and shady investment schemes that happen today just as they did back then. Graham was quite outspoken and cynical about the motives and methods of the speculator, stating that when a stock purchase is "motivated by speculative greed" the investor "desires to conceal this unlovely impulse behind a screen of apparent logic and good sense."

Graham was among the first to separate market movement and timing from investing. For Graham, the market was an emotional animal, and trying to time its moves was guesswork that amounted to speculation. He described the market as an "emotionally disturbed business partner." To Graham, investing required a focus on the company. The students of Graham learned a few specific mathematical formulas and relationships, but went on to learn the reasoning processes and investing philosophy that drive the value investing style. Graham specifically taught people to calculate intrinsic value to look for a margin of safety, and to avoid speculative impulses.

In 1949, Graham came out with another classic, The Intelligent Investor. It's widely available today, priced at $\$ 30.00$. Because it's only 296 pages long, you may initially question its price versus its intrinsic value. But if you weigh in the intangibles of enjoying one of the classics of investing history - and the prospect of making good investments - the rather high per-pound price is justified!

The Intelligent Investor is largely a repackaging of Security Analysis for the nonprofessional investor, although the language and formulas are still a bit intimidating for some. The more contemporary books on value investing (including this one) are easier to digest.

## The foundation

Benjamin Graham and those value investors who followed him relied on the balance sheet for the first indication of a company's status and value. Essentially, the balance sheet is a snapshot of what the company owns and what it owes. If it owns more than it owes, the company scores points with the value investor. If what it owns is productive and has marketable value, the company scores more points. Graham and some value investors place more emphasis on the balance sheet, while others, notably Buffett, take a closer look at the income and cash flow statements. The reality: You have to look at all three statements; they are inextricably linked. None of the three alone can tell the whole story.

Graham believed that the balance sheet revealed the foundation, the value below which a company would never go. The balance sheet also reveals the degree of safety, in the form of liquid assets and assets in excess of debt.


A brief word about assets and asset quality: Assets come in all shapes and sizes. Liquid assets are those that can be quickly and easily sold or converted at or near their reported value. Cash, most accounts receivable, and marketable securities owned by the firm are liquid. Certain inventories and other assets may be liquid, but many are not. For example, a stock of Intel Pentium III processors is obsolete and probably not worth what it says it is on the books. Same goes for buildable land in a weak housing environment.


#### Abstract

Fixed assets, such as plants and equipment, are usually considered illiquid. True, they can be sold, often for prices meeting or exceeding their reported value. But the selling process may take a long time and the cash won't be available for a long time. Likewise, hard assets - those that you can see, feel, and touch, or that show up on a bank statement - usually have more value than soft items, such as patents, business agreements, and other items of goodwill. Assets not only come in different shapes and sizes but also have different degrees of quality. An old disused railroad track is certainly less valuable than the latest state-of-the-art semiconductor manufacturing machine.


## Nets and net net

Graham liked to take a close look at assets and particularly current assets. Then he compared per-share asset values with stock prices. When a stock was selling at a discount to asset value, particularly current asset value, it was a bargain.

## Net current asset value

Graham used two key measures: net current asset value and net net asset value per share. Net current asset value is defined today by most financial analysts as working capital. Working capital is the asset base that recirculates through the business as cash, receivables, and inventory and is used to acquire raw materials and to produce and sell products. (It is calculated simply by subtracting current assets from current liabilities - more on that in Chapter 7.)

A company with a strong working capital position can expand its business, try new things, and produce new revenue and earnings streams. A company short on working capital struggles to produce and market its products can't capitalize on new business opportunities, and is vulnerable to downturns. Working capital is analogous to a household checking account. High checking account balances and low debt afford the household more opportunity, flexibility, and safety - the same is true of a company with healthy working capital.


What we just said about working capital - the more, the better - is generally true. However, modern corporate finance as practiced by some companies, notably retailers and some high-efficiency manufacturers such as Dell, Inc., uses very low or even negative levels of working capital. In effect, these companies run the business on someone else's money. Increased profitability results from high asset turnover and asset productivity combined with reduced exposure to obsolete inventory. For such a company, Graham's formula wouldn't make much sense; return on assets (ROA) or return on equity (ROE) become better yardsticks.

Graham would typically look for companies selling at prices lower than net current asset value. A stock selling at less than two-thirds of working capital was considered a bargain. In today's world, with more efficient use of capital and a focus on reducing asset efficiency and exposure, stocks meeting this criterion are hard to find.

## Net net asset value

Net net asset value per share is an even more conservative view of liquidity and company health. Net net asset value is current assets less not only current but also long-term liabilities. For Graham, a company whose current assets were one-third greater than both current and long-term liabilities was in great financial health, and if the share price was less than the net net asset value per share, it was a bargain.

Net net asset value per share:
(Current assets - Current liabilities - Long-term debt) $\div$ Shares outstanding

## By the book: Book value

Book value was another Graham focal point. Book value represents the accounting value of owners' equity in the business. Book value is a fairly subjective look at company valuation, one that today brings considerable debate. Per-share book value is defined as
(Total assets - Intangible assets - Liabilities - Preferred Stock value) : Common Shares outstanding

From an accounting viewpoint, book value can be pretty theoretical. Why? Because of the way companies manage and depreciate fixed assets and how they account for intangibles (goodwill, patents, value of research and development, and the like). For manufacturing and technology companies especially, book value can be misleading. For banks and other financial institutions where most assets and liabilities are in cash or cash equivalents, book value is more relevant.

Book value is, at least in theory, what a person buying a business would want to look at first. It is the bottom-line net value of the company. But because of the accounting complexities, Graham and others did not compare it directly to share price. A number of value investors, including Buffett, like to observe whether book value is growing and is at least within reasonable range of the share price. In fact, Buffett uses book value as a key yardstick to measure Berkshire Hathaway's success.

## PEG

You may be familiar with the popular valuation metric known as PEG, or Price Earnings/Growth. PEG is the price to earnings ratio divided by the earnings growth rate. The lower the PEG, the better.

PEG's message: High P/E ratios are justified by high growth rates. If the $P / E$ outstrips the growth rate, the resulting PEG is high and the stock may be overvalued relative to its underlying growth. There's a reason it's brought up here. A closer look at Ben Graham's intrinsic value formula
reveals a relatively high implied PEG, consistently over 2.0 (driven by the multiplier of " 2 " in the equation just discussed). Then when added to the base no-growth $8.5 \mathrm{P} / \mathrm{E}$ multiplier, the resulting calculated PEG consistently exceeds 2.0 at all growth rates - at least until interest rates are factored in (an important "until"). Still, given many investors' reluctance to buy stocks today with PEG exceeding 2.0, Graham's formula is less conservative than you may expect.

## Up and to the right: Earnings and growth

Graham started with the balance sheet, but certainly didn't stop there. Earnings, more specifically earnings growth, is the engine that moves a stock price upward. Indeed, unless a payout of company assets is imminent, the combination of earnings and earnings growth is what truly defines the intrinsic value of a business, and thus its stock price. The upper limits of a company's intrinsic value are determined by earnings and earnings growth; the lower end of the value range is determined by the asset base.

## A first trip to the P/E counter

We've come to the most basic and well known of all the stock-valuation tools: Price to Earning ratio, or P/E ratio. Almost every investment analysis covers P/E. Graham probably didn't invent P/E, but it was a key part of his investing philosophy. Naturally, he recommended looking for stocks with a low $\mathrm{P} / \mathrm{E}$ relative to the market. Although he didn't specifically mention a more contemporary measure, the Price/Earnings to Growth, or PEG ratio, which attempts to scale the $\mathrm{P} / \mathrm{E}$ according to underlying growth, he did recognize that different stocks should have different P/Es. Growth stocks could have a P/E in the 20s, while others should be lower. Moreover, Graham recognized that good bargains have current P/Es lower than historic P/Es. Graham's advice to investors generally was to avoid stocks with a P/E higher than 20.

## Intrinsic value . . . and beyond

Although Graham didn't invent $\mathrm{P} / \mathrm{E}$, he did create a very useful and easy-touse intrinsic value formula.

Graham was trying to establish a stock's value based on earnings and earnings growth, while keeping an eye on bond yields available as an alternative. Comparison to low-risk or risk-free bond investments, by the way, is a common and recurring theme in value investing.

Bond yields are an important valuation and pricing factor for value investors. Higher bond yields suggest a stock must return relatively more to be a choice investment. Furthermore, high bond yields suggest high cost of capital and inflation, which in turn depreciate future earnings and cash flows, thus driving down valuation.

Bonds may be boring, but you as an investor must make sure that a stock's return is reasonably higher than that of an ordinary bond. You must also be sure the return is reasonable given the risk taken. If not, just buy the bond, sleep at night, and be done with it!

Back to Graham's formula: You take current earnings, apply a base P/E ratio, add a growth factor if there is growth, and adjust according to current bond yield. The result is an intrinsic value that the stock can be expected to achieve in the real world if growth targets are met.

Formula: Intrinsic value $=\mathbf{E} \times(2 \mathbf{g}+8.5) \times 4.4 / \mathbf{Y}$
$E$ is the current annual earnings per share.
$g$ is the annual earnings growth rate - 5 percent would be figured as a " 5 ." (Graham would have suggested using a conservative number for growth.)
8.5 is the base $\mathrm{P} / \mathrm{E}$ ratio for a stock with no growth.
$Y$ is the current interest rate, represented as the average rate on highgrade corporate bonds. Note that lower bond rates make the intrinsic value higher, as future earnings streams are worth more in a lower interest rate environment.

Take Hewlett-Packard as an example. With current earnings (trailing 12 months) of $\$ 2.30$ per share, a growth rate of 10 percent, and a corporate bond interest rate of 6 percent, the intrinsic value is

$$
\begin{aligned}
& \$ 2.30 \times[(2 \times 10)+8.5)] \times(4.4 / 6) \\
& \text { or } \$ 48.07 \text { per share }
\end{aligned}
$$

This value almost exactly matches the price at the time that these calculations were made. That suggests little potential price appreciation in the stock - unless per share earnings growth accelerates or bond yields dip.

Acceleration in the business would increase the earnings growth rate, and share repurchases would increase the earnings per share. Both changes, especially taken together, would stimulate growth in intrinsic value. You shouldn't go out and buy or sell stock based on this formula alone, of course, but it's a great "quick" test of a stock's price and true value.

## Check the checklist

In addition to identifying and quantifying important value components, Graham left us with an assortment of general stock selection rules. He created a number of checklists at different times in his career to serve different investment objectives and portfolio strategies. The checklists review different aspects of a company's financial strength, intrinsic value, and the relationship with price. Table 3-1 helps identify undervalued stocks.

Table 3-1 A Ben Graham Checklist for Finding Undervalued Stocks

| Number | Criteria | Measures |
| :--- | :--- | :--- |
| 1 | Earnings to price (the inverse of P/E) is double the <br> high-grade corporate bond yield. If the high-grade <br> bond yields $7 \%$, then earnings to price should be $14 \%$. | Risk |
| 2 | P/E ratio that is 0.4 times the highest <br> average P/E achieved in the last five years. | Risk |
| 3 | Dividend yield is $2 / 3$ the high-grade bond yield. | Risk |
| 4 | Stock price of $2 / 3$ the tangible book value per share. | Risk |
| 5 | Stock price of $2 / 3$ the net current asset value. | Risk |
| 6 | Total debt is lower than tangible book value. | Financial <br> strength |
| 7 | Current ratio (current assets $\div$ current <br> liabilities) is greater than 2. | Financial <br> strength |
| 8 | Total debt is no more than liquidation value. | Financial <br> strength |


| Number | Criteria | Measures |
| :--- | :--- | :--- |
| 9 | Earnings have doubled in most recent ten years. | Earnings <br> stability |
| 10 | Earnings have declined no more than $5 \%$ in 2 of <br> the past 10 years. | Earnings <br> stability |

If a stock meets seven of the ten criteria, it is probably a good value, according to Graham. If you're income oriented, Graham recommended paying special attention to items 1 through 7. If you're concerned about growth and safety, items 1 through 5 and 9 and 10 are important. If you're concerned with aggressive growth, ignore item 3, reduce the emphasis on 4 through 6 , and weigh 9 and 10 heavily.


Again, these checklists are a guideline and example, not a cookbook recipe you should follow precisely. Don't log on to restructure your portfolio just this minute! They are a way of thinking and an example of how you may construct your own value investing system.

The criteria in Table 3-1 are probably more focused on dividends and safety than even today's value investors choose to be. But today's value investing practice owes an immense debt to this type of financial and investment analysis.

## The Master: Warren Buffett

It seems that about once per century the English-speaking world is blessed with a gifted leader and philosopher of unique and extraordinary talent. These special people have an incredible gift for understanding and doing complex things. But the gift goes further into how they explain their thoughts and pursuits to others with a remarkably effective use of humor. Benjamin Franklin, Abraham Lincoln, and Winston Churchill all easily qualify, and without doubt Warren Buffett also belongs in this elite group.

Warren Buffett arrived on the scene on September 30, 1930, and has turned his steady devotion to value investing principles into some $\$ 52$ billion in net worth. He is the second wealthiest person in the world (depending on the price of Microsoft stock). Buffett is clearly the Michael Jordan or Tiger Woods of value investing. His on-court record cannot be touched. Much of this book describes elements of his game. And it would be a disservice not to mention Buffett's off-court demeanor, where his candor, clairvoyance, and wit combine with his own enviably humble lifestyle to create a model for investors to emulate.

## In the beginning

The early stages of Buffett's career and lifestyle suggested investing success, although hardly on the scale he actually went on to achieve. Warren grew up in an investing environment. His father, Howard, ran an Omaha brokerage house in the 1930s that was known as Buffett, Sklenicka, \& Co. In his late teens, Warren worked in the house posting stock quotes and doing odd jobs, providing exposure to the trade. He learned about business through this experience and through a series of small business ventures in his high school days.

Like many other financial prodigies, Warren's aptitude did not go unnoticed by his parents, who urged him to attend the revered Wharton School at the University of Pennsylvania. This didn't work out well. Warren soon became bored and dissatisfied, feeling that he knew as much or more than Penn's vaunted faculty. Perhaps he was homesick; perhaps he had a more practical view of matters than the pages and pages of portfolio theory he was no doubt exposed to. In any case, he retreated to more familiar territory at age 19 to finish his degree at the University of Nebraska.

Benjamin Graham's Intelligent Investor hit the shelves, and legend has it that Warren, with a newly rekindled interest in investing and the business world, decided to put the finishing touches on his business education by attending Harvard Business School. Again, a poor match. Warren was rejected, as the story goes, after a 10-minute interview. Perhaps the admissions department had already reached its quota of Nebraskans.

Warren bounced back quickly from this setback and applied to Columbia Business School. Then and there, Buffett hooked up with Benjamin Graham. The rest, as they say, is history.

Warren took to Graham's preachings like a pig to mud. The two bantered in engaging dialogue from the opening bell to the end of class. Warren graduated in a year with a Master's in Economics. More important, he left with a philosophy of investing based on valuing companies and finding undervaluation in the marketplace.

Buffett returned to work in his father's brokerage firm and later went to work for Ben at Graham's brokerage firm, Graham Newman. There, he learned to manage investment portfolios and use insurance company assets as an effective investing vehicle.

From these beginnings Buffett started his own investment fund (with contributed capital from neighbors, relatives, coworkers, and the like) and later built the Taj Mahal of investment companies, Berkshire Hathaway.

## Taking charge

Like most investors, Buffett evolved his investing style, trying different things along the way. Often, Buffett would simply buy shares, hold them, and wait for growth prospects to materialize. Sometimes his objective was a little more short term in nature, buying to capture arbitrage - small differences between price and value that often emerge in merger, acquisition, and liquidation situations. (Capturing arbitrage is value investing, too; it's very short term in nature and you had better be good. You're going up against other professionals who have access to a lot of information and are betting for something different to happen.)

Sometimes Buffett would buy a large stake in an undervalued company, large enough to be noticed and reported to the SEC, usually 5 percent or more. He then would get himself installed on the company's board of directors. Many of these companies were having financial problems or problems translating company value into shareholder value. Many welcomed his presence. Buffett would help right these problems and, if necessary, assist in selling or finding a merger partner for the company. Of course, most ordinary investors can't do this, but the thought process is important.

## The start of Berkshire Hathaway

Buffett spied a faltering Massachusetts textile company known as Berkshire Hathaway. He saw potential value in a very depressed stock and began buying shares cheaply for his partnership. These shares traded at less than half of working capital (remember Ben Graham's net current asset value model). If the stock price would just grow to reflect the balance sheet value, a 100 percent gain was in store, at the very least. Buffett continued to accumulate shares until the partnership owned 49 percent of the company by 1965. He effectively controlled the company.

Originally, Buffett planned to right some of the wrongs and capture quick gains by selling or merging the company. But he saw a tempting opportunity to use Berkshire as an investment conduit to build worth by buying other businesses. The opportunity owes its origin to favorable tax treatments for companies owning other companies The ability to defer taxes is very important in value investing as a way to keep capital deployed and continuously earning returns (for specifics, see Chapter 4).


When Buffett distributed the partnership in 1969, he offered a choice of cash or Berkshire shares as part of the distribution. For his portion, Buffett took shares. He offered to buy the shares of other partners for himself. Suppose you had invested with Buffett. Your modest investment in the partnership resulted in getting offered 200 shares of Berkshire Hathaway or $\$ 8,400$ cash
(equivalent to two new cars, or maybe a third of a new house in 1969). What would you have done? We all know the answer now: At a current share price of $\$ 111,600$, your investment would be worth over $\$ 22$ million! A small group of wealthy folks made the choice to stick with Buffett. Many of them still make the annual pilgrimage to Omaha to enjoy those juicy steaks and count their blessings.

## To insurance and beyond

Neither Berkshire nor Buffett made it very far in the textile business. No "Buff It with Buffett" line of designer towels ever made it to the shelves at Nordstrom's (although they'd be worth a lot today, too, if they had!). Instead, Berkshire is now the world's largest investing pool. The Berkshire formula is as follows:
$\checkmark$ Employ cash flows from businesses owned within the holding company.
$\checkmark$ Buy stocks and bonds in the open market.
$\checkmark$ Use the cash flow to buy businesses outright - preferably cash rich and cash generating - to build the investment pool and increase book value.
$\checkmark$ Acquire solid insurance companies to provide cash flow and further build investing float and to insulate from downturns.

In short, Berkshire as a combined insurer and investment holding company is a fabulous investment ship and capital allocator - especially when you have someone of Buffett's investing prowess at the helm.

## From socks to stocks

Gradually, Buffett shifted his emphasis from small, opportunistic, turnaround situations, often of a short-term nature, to longer-term, large cap investments - he even acquired whole companies when the numbers were right. He did this with a clear eye on tapping the growth potential of the major companies and major brands that are abundant in American life. No more buying "cigar butts with one puff left in them," such as trading stamp companies, as he often did in the mid-1950s. Berkshire Hathaway was off to the races with a winning portfolio of value investments, a world-class pit crew, and high-octane fuel provided by the insurance business.

## Things go better with Coke

Berkshire put together a world-class portfolio of high visibility, blue chip growth stocks, including such household names as Coca-Cola, Gillette, American Express, and Wells Fargo. Buffett could not resist the low price of

Coca-Cola in the mid-1980s as the company seemed to struggle for reinvention with new Coke and other twists and turns in corporate strategy (most of which turned out to be unnecessary). Coca-Cola had the balance sheet and certainly the stability of earnings that one would expect of the world's leading purveyor of sugar water. Buffett saw not only the intrinsic value but also the franchise or marketplace value. Coke is arguably the world's most recognized brand, and that brand was and still is the closest thing to a guarantee against dips and significant competitive inroads. It's what Buffett calls a moat around the business.

Intrinsic value on the balance sheet, solid earnings with at least some growth and growth potential, and solid value in the franchise are what Buffett looked for in all his investments. And always - repeat, always - at a good price. Berkshire Hathaway acquired 200 million shares of Coke in the mid-1980s at around $\$ 6$ to $\$ 6.50$ per share (split adjusted). Coke generally sells at over $\$ 50$ today. The Berkshire before-tax profit is in the $\$ 10$ billion range.

Wanna know what Berkshire buys? It isn't easy to find out. Berkshire keeps its purchases a secret (to avoid market overreaction, among other reasons). But as much as it tries to avoid disclosure, investments of certain size and that constitute a certain proportion of ownership must be disclosed. SEC 13F filings contain the disclosures as statements of change of ownership. You can watch these directly or just watch the news. Any time a 13 F surfaces, the financial news media is quick to pounce.

The most recent 13 F filing, released in mid-May 2007 for the close of business on March 31, uncovered four new purchases, three of them in railroad companies (Union Pacific, Norfolk Southern, Burlington Northern Santa Fe) and a new position in health provider, Wellpoint. Buffett increased positions in Comcast, Iron Mountain, Wells Fargo, Johnson \& Johnson, and SanofiAdventis, while reducing holdings in financials Ameriprise and H\&R Block, brewer Anheuser-Busch and Western Union.

We know now, but hardly soon enough to have made a market killing from the knowledge. That said, knowing where Buffett has been and where he is going never hurts. By the way, you can find these 13Fs yourself simply by doing a search on Berkshire Hathaway 13F and the year you're interested in.

## Shares? Why not the whole company?

Acquiring shares certainly works over time and is what we ordinary value investors should be focused on. But Berkshire went beyond this strategy way beyond - to buy whole companies for its portfolio. Why? Two reasons, mainly. If you own the whole company, you're entitled to its cash and cash flow and can reinvest it as you wish. You don't have to compete with other shareholders, and management and reporting relationships are simpler.

So Berkshire Hathaway has made many "whole enchilada" investments. The Insurance group has grown substantially and is anchored by consumer favorite GEICO, originally bought by Ben Graham in the 1950s), and by General Re, in the lucrative reinsurance (wholesale insurance) market. The companies play in different insurance segments, and combine to produce $\$ 81$ billion in revenue in 2006, with almost $\$ 13$ billion in pretax income and an amazing $\$ 50$ billion in "float" - cash taken in but not paid out on claims and used for investments.

Beyond insurance, the manufacturing, retail, and service group now consists of some 70 companies, large and small, all successful in their own arena. An obvious favorite is Borsheim's, a chain of high-end jewelry stores. Dairy Queen, RC Willey Pampered Chef, and See's Candies are strong consumer names. Applied Underwriters (worker's comp) NetJets (company jet leasing), FlightSafety International and MiTek, are for the business-to-business world. Some companies are large and others are small, including the Nebraska Furniture Mart, which Buffett bought one morning as a $\$ 60$ million birthday present to himself. See Table 3-2.

| Table 3-2 | Berkshire Hathaway Manufacturing, <br> Retail, and Service Subsidiaries |
| :--- | :--- |
| Subsidiary Name | Subsidiary Business |
| Acme Brick | Face brick and other building materials |
| Applied Underwriters | Worker's compensation solutions |
| Ben Bridge Jeweler | Retail fine jewelry <br> Architectural and industrial coatings - <br> penjamin Moore <br> Berkshire Hathaway <br> Homestates Companies <br> Borsheim Fine Jewelry |
| Buffalo News | Retail fine jewelry |
| Business Wire | Businespaper news and information services |
| Central States Indemnity Company | Consumer credit insurance |
| Clayton Homes | Modular and manufactured homes insurance |


| Subsidiary Name | Subsidiary Business |
| :--- | :--- |
| CORT Business Services | Rental furniture |
| CTB, Inc. | Agricultural equipment |
| Fechheimber Brothers | Safety equipment |
| Flight Safety International | Training for aircraft and ship operators |
| Forest River | Towable RVs and trailers |
| Fruit of the Loom | Textiles |
| Garan Incorporated | Children's clothing |
| Gateway Underwriters | Property and casualty insurance |
| GEICO | Property and casualty insurance |
| General Re | Reinsurance |
| H.H. Brown Shoe Co. | Work shoes, boots, casual footwear |
| Helzberg's Diamond Shops | Retail fine jewelry |
| Home Services of America | Residential real estate |
| International Dairy Queen | Licensing and servicing D.Q. stores |
| Iscar Metalworking Companies | Machine tools |
| Johns Manville | Insulation, roofing |
| Jordan's Furniture | Retail home furnishings |
| Justin Brands | Western boots, hats |
| Larson-Juhl | Custom picture frames |
| McClane Company | Food distribution, logistics |
| Medical Protective | Healthcare provider insurance |
| MidAmerican Energy | Production, supply, distribution of energy |
| MiTek Inc. | Engineered building products and services |
| National Indemnity Co. | Property/casualty insurance |

## Table 3-2 (continued)

| Subsidiary Name | Subsidiary Business |
| :--- | :--- |
| Nebraska Furniture Mart | Retail home furnishings |
| NetJets | Fractional jet ownership |
| The Pampered Chef | Direct marketer, kitchen products |
| Precision Steel Products | Steel service center |
| RC Willey Home Furnishings | Retail home furnishings |
| Scott Fetzer Companies | Subsidiary group includes Kirby Vacuums, <br> Campbell Hausfeld, World Book |
| See's Candies | Boxed candies, confectionary |
| Shaw Industries | Flooring, carpet |
| Star Furniture Company | Retail home furnishings |
| TTI, Inc | Transportation equipment components |
| United States Liability <br> Insurance Group | Specialty insurance products |
| Wesco Financial | Holding company |
| XTRA Corporation | Transport equipment leasing |

What do all Berkshire Hathaway companies have in common?
$\checkmark$ They are profitable, safe, and solid.
$\checkmark$ They are easy to understand with simple business models.
$\checkmark$ They produce plenty of cash flow to reinvest.
$\checkmark$ They are unique businesses with strong market positions and franchises.
$\checkmark$ They have solid, trustworthy management.
$\checkmark$ They were bought at reasonable prices.
We ordinary value investors can't assemble this kind of portfolio, but we can learn from what makes Berkshire Hathaway and its master tick. That's ground we cover in the rest of this book.

## Acquisition criteria: Telling it like it is

If you don't believe what we just said about Berkshire companies, take a look at the following set of "acquisition criteria," straight from the 2006 Berkshire Hathaway Annual report. Straight, clear, to the point - and never before have we seen anything like this - including the commentary - in a shareholder report.

## ACQUISITION CRITERIA

We are eager to hear from principals or their representatives about businesses that meet all of the following criteria:
(1) Large purchases (at least $\$ 75$ million of pre-tax earnings unless the business will fit into one of our existing units),
(2) Demonstrated consistent earning power (future projections are of no interest to us, nor are "turnaround" situations),
(3) Businesses earning good returns on equity while employing little or no debt,
(4) Management in place (we can't supply it),
(5) Simple businesses (if there's lots of technology, we won't understand it),
(6) An offering price (we don't want to waste our time or that of the seller by talking, even preliminarily, about a transaction when price is unknown).

The larger the company, the greater will be our interest: We would like to make an acquisition in the $\$ 5-20$ billion range. We are not interested, however, in receiving suggestions about purchases we may make in the general stock market.

We will not engage in unfriendly takeovers. We can promise complete confidentiality and a very fast answer - customarily within five minutes as to whether we're interested. We prefer to buy for cash, but will consider issuing stock when we receive as much in intrinsic business value as we give. We don't participate in auctions.

## Smaller Slices

Buffett doesn't always buy the whole company, for either it is too big, or he simply wants to take a position without a complete commitment. Needless to say, the list of 42 holdings in publicly traded companies as of March 2007 is instructive, see Table 3-3.

| Table 3-3 | Buffett Public Company Holdings |  |
| :--- | :--- | :--- |
| Company | Business/Sector | Estimated 2007 P/E |
| Ameriprise Financial | Financial services | 14.1 |
| American Standard | Building products | 10.6 |
| USG Corporation | Building products | 24.7 |

Table 3-3 (continued)

| Company | Business/Sector | Estimated 2007 P/E |
| :---: | :---: | :---: |
| Norfolk Southern | Railroad | 12.8 |
| Comcast Corporation | Cable, communications | 32.7 |
| PetroChina ADRs | International energy | -- |
| Gannett Corp | Newspapers | 10.0 |
| Burlington Northern | Railroad | 15.0 |
| Tyco International | Diversified | 21.7 |
| Ingersoll-Rand | Industrial | 13.9 |
| ConocoPhillips | Energy | 8.2 |
| SunTrust Banks | Financial services | 13.0 |
| H\&R Block | Financial services | 14.8 |
| Home Depot | Retail | 14.7 |
| UnitedHealth Group | Healthcare | 13.4 |
| American Express | Financial services | 16.9 |
| Nike Inc. | Consumer apparel | 16.2 |
| Torchmark Corp | Financial services | 11.1 |
| Moody's Corp | Financial services | 20.8 |
| M\&T Bank | Financial services | 13.6 |
| Pier 1 Imports | Retail | -- |
| Union Pacific | Railroad | 16.8 |
| USBancorp | Financial services | 11.2 |
| Lowe's Corp | Retail | 13.9 |
| WellPoint Inc | Healthcare | 13.7 |
| General Electric | Diversified | 17.3 |
| First Data Corp | Info services | 24.4 |
| Sanofi-Advenis ADR | Pharmaceuticals | 11.3 |
| Comdisco Holdings | Industrial | -- |
| Wal-Mart Stores | Retail | 14.5 |


| Company | Business/Sector | Estimated 2007 P/E |
| :--- | :--- | :--- |
| Western Union | Technology services | 18.1 |
| Anheuser-Busch | Consumer beverages | 17.2 |
| Wells-Fargo | Financial services | 12.6 |
| Wesco Financial | Financial services | 78.8 |
| Johnson \& Johnson | Healthcare | 15.1 |
| United Parcel Service | Logistics | 18.5 |
| Costco Wholesale | Retail | 24.8 |
| Washington Post | Newspapers | 26.7 |
| Coca-Cola Co. | Consumer beverages | 21.1 |
| Procter \& Gamble | Diversified consumer | 18.9 |
| Iron Mountain | Technology security | 40.1 |

## For more on Buffett

Entire books can be - and have been - written on Buffett, his personality, humor, lifestyle, experiences, and teachings. We cannot begin to approach the rich material available in other books devoted to him as a topic. Another interesting, though plain and simple to the extreme, place to get information from and about Buffett and Berkshire Hathaway is the corporate Web site, easily accessed at www. berkshirehathaway. com. Buffett's letters to shareholders are particularly worthwhile and exemplify his deep understanding and sense of humor.

## The Disciples

Along the way, the Buffett-Graham school has acquired a good-sized following, although how few people have really made a name for themselves investing in the Buffett style still surprises us. Perhaps they are as low key as he is; perhaps there just isn't that much other than sustained long term performance to grab headlines.

Good investors know how to play "follow the leader" - if not to invest literally as they do, at least emulate their style, and better yet, get good investing ideas. We all watch Tiger Woods play golf, not with any real hope of shooting 63 in a major, but with the hope of picking up some elements of his playing style.

Here are a few well-known value investors to watch:
$\checkmark$ Bill Nygren: Nygren is Portfolio Manager of The Oakmark Fund and The Oakmark Select Fund, two widely held and admired mutual funds. Since its 1991 start, the Oakmark fund has returned over 16 percent a year, and the Select fund has returned over 20 percent since its 1996 start. Nygren is a classic value picker, choosing stocks based on a discount from underlying business value based on cash flows, management ownership, and how cash is reinvested in the business. Successful investment picks include Coca-Cola, Discovery Holdings, and Schering-Plough.
$\checkmark$ Bill Miller: Miller manages the Legg Mason Value Trust, and became famous for beating the S\&P 500 Index for 15 consecutive years until failing badly in 2006 - his fund underperformed by some 10 percent. Miller buys mostly large cap stocks at discounts to his measured intrinsic value, and is well known for picking fairly aggressive growth stories like Amazon, eBay, and Home Depot, all three of which did not serve him well in 2006.
$\checkmark$ David Dreman: Dreman is founder, chairman, and chief investment officer of fund family Dreman Value Management, LLC, and is a regular Forbes columnist. Dreman's classic approach considers P/E ratios, above market dividend yields, and strong historic earnings growth. Many picks are smaller companies like Stride Rite, Amedisys, Inc, and SPX Corporation.
$\checkmark$ George Soros: Known more for his successes as a speculator but also his philanthropy and political leanings, few know that Soros has also done quite well as a long-term, value-oriented investor. His Quantum Fund, started in 1969, has one of the best performance records during that span, with gains of some 1,500 percent from 1969 through 1994. Today he manages Soros Fund Management, a firm that provides advice to public mutual funds and hedge funds. You can follow his picks, which include Conoco Phillips and CarMax, as well as smaller companies like Bioenvision, Inc.


To find out what stocks your favorite value guru is holding, buying, or selling, you can visit Web sites that track this sort of thing - but they come and go. The best bet is to Google "George Soros Stock Holdings" or something similar. Better yet, keep up with the changes by reviewing SEC 13F filings - do that search on "George Soros 13F filings" instead.

# Part II Fundamentals for Fundamentalists 

## The 5th Wave

By Rich Tennant


## In this part . . .

$w$e open the value investor toolbox by first engaging in a short exploration of investing mathematics and show how a few simple math principles can make you a better investor. Next up is a discussion of information and information sources key to the value investor. Then we dig in further with a tour of the financial statement landscape, including balance sheets, income statements, and cash flow statements. Ratios and ratio analysis are explored as a way to make more sense of these numbers. Finally, we help you to find and interpret non-numeric influences in the value equation.

## Chapter 4

# A Painless Course in Value Investing Math 

## In This Chapter

Understanding the time value of money
$>$ Realizing the power of compounding and the Rule of 72
$>$ Seeing the power of buying cheap
$>$ Examining the devastating effects of underperformance
$>$ Determining what future returns are worth today
$>$ Watching for hidden pitfalls in large numbers
$>$ Factoring in inflation, taxes, interest, and risk

1t's hard to imagine the words "short" and "painless" being used in the same sentence as "math," but, this chapter attempts to prove that math at least the math you need for investing - can indeed be both short and relatively painless. We explore a handful of fundamental math concepts in value investing, keeping it simple and practical and focusing on how the concepts are applied.

You won't find any statistics, stochastics, or oscillators - just some harmless algebra and arithmetic and basic principles that value investors employ daily. No fancy Ivy League portfolio-theory higher-math stuff that you may have heard about, or seen, or even studied in school, because that doesn't really apply to value investing. And you won't come across formulas with little Greek symbols, either. As Warren Buffett once said, "If calculus were required, I'd have to go back to delivering papers."

The tools and underlying principles covered in this chapter are thoroughly understood and employed by value investing masters. They will become part of your investing vocabulary, just as knowing the taste and strength of garlic is part of your cooking vocabulary. Knowing the chemical makeup and concentration of the allyl propyl disulfide in garlic is hardly important for cooking. Similarly, the math technicalities themselves aren't so important either, leaving us to ponder whether we should have used the word "math" in this chapter in the first place.

## Lesson 1: Time Value of Money

First, we explore a cornerstone principle in all of business and finance: A dollar today isn't worth the same amount as a dollar yesterday, nor is it worth the same amount as a dollar tomorrow. The bottom line is, invested money appreciates with time - how and how much is examined here. Note there will be exponents in this discussion, but keep the faith - the calculations are easy, and today's calculators and spreadsheets easily perform them.

If you are already familiar with time value of money basics, you can probably skip Lessons 1 through 3 in this chapter.

## Money and time: An interesting story

Suppose that you have a $\$ 10$ bill in your pocket. What's it worth today? Ten bucks. You're right, but keep reading.

Now suppose that the $\$ 10$ is in a bank account or some other investment vehicle that pays a return. This return can be a fixed payment in return for the financial institution's use of the money, known as interest. Or it can be a return in some other form, say, a profit generated through the use of the $\$ 10$ in a business, increasing the value of the business.

Either way, if you leave these dividends alone and don't withdraw them, they become part of the investment. At a 10 percent rate of return, the $\$ 10$ becomes $\$ 11$ in the first year, and $\$ 11$ is invested in the interest or profitgenerating asset for the second year. With $\$ 11$ invested, assuming that the interest or profitability stays the same, you reap the greater rewards due an $\$ 11$ investment. In this case, the reward is now $\$ 1.10$, not $\$ 1$. The investment is now worth $\$ 12.10$ ( $\$ 10+\$ 1+\$ 1.10$ ). Now $\$ 12.10$ is invested, and the return is $\$ 1.21$. And so forth. Both the investment and the incremental dollar return grow over time. Each year's golden eggs become part of the next year's goose, which then lays still more golden eggs.

## Present and future value

So what is the investment worth? It depends. The investment is worth $\$ 10$ today, as we said earlier. That ten bucks is known as the present value. Pretty simple so far, right? Now what about the future? If the investment grows over time, the total value will include the initial $\$ 10$ plus all returns generated during that time. This is known as future value.

Invested money grows and compounds. In other words, there is growth on the original investment, plus return and growth on returns already earned. A snowball rolling downhill is a good analogy. As the ball gets bigger, it picks up
ever-larger amounts of snow. How much? Compounding formulas, which are driven by rate of return and the amount of time, supply the answer.

## Investment returns in the future: When it isn't yours yet

Suppose that someone promises to pay you $\$ 10$ five years from now. Are you $\$ 10$ wealthier? In five years you are, but what about now? Well, the truth is, if you look in the mirror today, you can't say that you're worth $\$ 10$ more. The reality: To have $\$ 10$ in the future, you only need to put some fraction of that $\$ 10$ in the bank today. The exact fraction depends on the same factors that drive future value: rate of return and time. At 10 percent, you would need to deposit only $\$ 6.21$ today to have $\$ 10$ five years from now. Same formula, but this time, the approach is from the opposite direction. Instead of asking, "What is my $\$ 10$ worth in five years?" you ask, "What would I need today to have $\$ 10$ in five years?"

## The magic compounding formula

The fundamental time-value-of-money, or compounding, formula provides an indispensable foundation for value investors. A word of advice: It's just as important to understand the formula, the dynamics, and the factors that drive or have the most influence on the result as it is to memorize the formula to do lots of math problems. Furthermore, just as it takes more than garlic to cook, you need a lot more than this formula to select stocks and be successful. Here's the formula:

$$
\begin{aligned}
& \mathbf{F V}=\mathbf{P V} \times(\mathbf{1}+\mathbf{i})^{\mathbf{n}} \\
& \text { where } \ldots \\
& \mathbf{F V} \text { is future value } \\
& \mathbf{P V} \text { is present value } \\
& \mathbf{i} \text { is the interest rate, or rate of return } \\
& \mathbf{n} \text { is the number of years invested }
\end{aligned}
$$

Now, to take apart the formula: The future value is a function of the present value, expanded or compounded by the interest rate over time. To calculate a return for one year, simply take PV and multiply by 1 (to preserve the original value) plus $i$ (to increment by the interest rate or rate of return). The result is future value.

To calculate the return for more than one year, it gets more interesting. Multiply PV by $(1+i)$ factored by the number of years, so 5 years is (PV) $\times$ $(1+i) \times(1+i) \times(1+i) \times(1+i) \times(1+i)$. Each $(1+i)$ indicates another year of compounding interest. The exponent is mathematical shorthand for such sequential multiplications The FV of $\$ 10$ invested at 10 percent over 5 years is

$$
\begin{aligned}
& \mathrm{FV}=\$ 10 \times(1+.10)^{5} \\
& \text { or } \\
& \$ 10 \times(1.61) \text {, or } \$ 16.10
\end{aligned}
$$



Fine, we can calculate future value. But what about present value? What if you want to figure out what interest rate would give you $\$ 16.10$ on a $\$ 10$ investment if held for 5 years? In other words, what if you want to work backward? You can transpose the formula algebraically to calculate PV, $i$, and even $n$ :

1) $\mathrm{PV}=\mathrm{FV} \div(1+\boldsymbol{i})^{\mathrm{n}}$
2) $\left.\boldsymbol{i}=(\mathbf{F V} \div \mathbf{P V})^{(1 / n)}\right)-1$ or the nth root of $(\mathrm{FV} / \mathrm{PV})$
3) $\mathbf{n}$ is trickier - it involves logarithms!

## Why Lesson 1 is important

Time value of money helps you estimate or determine the future value of an investment held over time. The importance of time value of money calculations doesn't stop there. Some value investing techniques call for discounting, or calculating the present value of future income streams. Time value calculations are an important ingredient in measuring the value of investments and comparing them to alternatives. And you see later in this chapter and in those that follow how compounding becomes a main engine powering the value investing concept.

## 12C your way clearly

If the formulas in Lesson 1 appear cumbersome, there is help in the form of a $\$ 70$ device from Hewlett-Packard - the oldest product in its catalog — the HP 12C Financial Calculator. Other financial calculators work fine, too. These calculators have a built-in set of easy-to-use
financial formulas. They also do the more complex things, such as calculate FV if you contribute $\$ 10$ more every year. Or you can use it to figure out your next car payment. It's one of the best values available to a value investor.

## Lesson 2: The Amazing Power of Compounding

Compounding is perhaps the greatest and most powerful investment principle ever "discovered." In fact, Albert Einstein called compounding "the greatest mathematical discovery of all time."

Why? Take a look at Table 4-1.

| Table 4-1 |  | Compounded Return on \$1,000 Invested |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 year | 2 years | 5 years | 10 years | 15 years | 20 years | 30 years | 40 years |
| 4\% | \$1,040 | \$1,082 | \$1,217 | \$1,480 | \$1,801 | \$2,191 | \$3,243 | \$4,801 |
| 5\% | 1,050 | 1,103 | 1,276 | 1,629 | 2,079 | 2,653 | 4,322 | 7,040 |
| 6\% | 1,060 | 1,124 | 1,338 | 1,791 | 2,397 | 3,207 | 5,743 | 10,286 |
| 7\% | 1,070 | 1,145 | 1,403 | 1,967 | 2,759 | 3,870 | 7,612 | 14,974 |
| 8\% | 1,080 | 1,166 | 1,469 | 2,159 | 3,172 | 4,661 | 10,063 | 21,725 |
| 9\% | 1,090 | 1,188 | 1,539 | 2,367 | 3,642 | 5,604 | 13,268 | 31,409 |
| 10\% | 1,100 | 1,210 | 1,611 | 2,594 | 4,177 | 6,727 | 17,149 | 45,259 |
| 11\% | 1,110 | 1,232 | 1,685 | 2,839 | 4,785 | 8,062 | 22,892 | 65,001 |
| 12\% | 1,120 | 1,254 | 1,762 | 3,106 | 5,474 | 9,646 | 29,960 | 93,051 |
| 13\% | 1,130 | 1,277 | 1,842 | 3,395 | 6,254 | 11,523 | 39,116 | 132,782 |
| 14\% | 1,140 | 1,300 | 1,925 | 3,707 | 7,138 | 13,743 | 50,950 | 188,884 |
| 15\% | 1,150 | 1,323 | 2,011 | 4,046 | 8,137 | 16,367 | 66,212 | 267,864 |
| 16\% | 1,160 | 1,346 | 2,100 | 4,411 | 9,266 | 19,461 | 85,850 | 378,721 |
| 17\% | 1,170 | 1,369 | 2,192 | 4,807 | 10,539 | 23,106 | 111,065 | 533,869 |
| 18\% | 1,180 | 1,392 | 2,288 | 5,234 | 11,974 | 27,393 | 143,371 | 750,378 |
| 19\% | 1,190 | 1,416 | 2,386 | 5,695 | 13,590 | 32,429 | 184,675 | 1,051,668 |
| 20\% | 1,200 | 1,440 | 2,488 | 6,192 | 15,407 | 38,338 | 237,376 | 1,469,772 |
| 21\% | 1,210 | 1,464 | 2,594 | 6,727 | 17,449 | 45,259 | 304,482 | 2,048400 |
| 22\% | 1,220 | 1,488 | 2,703 | 7,305 | 19,742 | 53,358 | 389,758 | 2,847,038 |

Table 4-1 (continued)

|  | 1 year | 2 years | 5 years | 10 years | 15 years | $\mathbf{2 0}$ years | 30 years | 40 years |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $23 \%$ | 1,230 | 1,513 | 2,815 | 7,962 | 22,314 | 62,821 | 497,913 | $3,946,430$ |
| $24 \%$ | 1,240 | 1,538 | 2,932 | 8,594 | 25,196 | 73,864 | 634,820 | $5,455,913$ |
| $25 \%$ | 1,250 | 1,563 | 3,052 | 9,313 | 28,422 | 86,736 | 807,794 | $7,523,164$ |

Some pictures are worth a thousand words, and Table 4-1 is such a picture. It shows what happens to $\$ 1,000$ invested for a period of time, defined on the horizontal axis, at a rate of return, defined on the vertical axis. The formula to calculate these values is - you guessed it - the time value of money formula presented in Lesson 1 of this chapter.

And you're right. That is $\$ 7$ million and change in the lower-right corner, on a $\$ 1,000$ investment. If you really do well and capture consistent 25 percent returns on your investments, that's what you'd have in 40 years. If you invested $\$ 20,000$, you would have $\$ 140$ million, assuming no taxes. Easy, right? All you need to know is how to achieve consistent 25 percent annual returns!

Before you dismiss 25 percent annual returns as out of the question, know that until 1999 Berkshire Hathaway achieved over 30 percent annual compounded return for over 30 years. Things flattened a bit in 1999 and 2000, but have resumed since, and long-term returns once again handily exceed 25 percent. Don't assume that high rates of return are impossible. Later in this chapter we examine the dramatic power of beating the market.

## The power of " $i$ " and " $n$ "

The point isn't necessarily to turn $\$ 1,000$ into $\$ 7$ million. The point is to show that the farther you go down and to the right on Table 4-1, the larger the future value gets. In fact, it increases at a faster rate the farther down and to the right you go.

The nature of the $(1+i)^{\mathrm{n}}$ expression in our formula produces this fascinating result. If $i$ is small, no matter how large the $n$, the end result doesn't grow much. (Recall from seventh grade math that 1 raised to any power is still 1.) Likewise, if $n$ is small, it doesn't so much matter what the $i$ is.

## How to make 40 quintillion dollars (in 500 years)

One can go to extremes when applying the principles of compounding. If the Spanish royalty had invested the estimated $\$ 30,000$ stake it placed in Christopher Columbus at 7 percent, that $\$ 30,000$ would be worth over $\$ 40$ quintillion (40, followed by 18 zeros) today. Spain would be the major world power (which is, of course, what they
were trying to achieve in 1492!) The trouble is that the Columbus expedition produced immediate results on the world stage, while the compounding approach would have required 500 years. So Ferdinand and Isabella probably made a good decision. Success depends on your time horizon - and what you do with your winnings.

## Why Lesson 2 is important

The power of compounding assumes its full glory (and your investments reach their full girth) as the $i$, or the rate of return, gets larger, and the $n$, or the length of time, gets longer. The and is important! Value investors look for a few more $i$ points of return and to hold the productive investment for as many $n$ years as possible.


Because $n$ is an exponent, it exerts the greatest power and influence on your investing portfolio. Time is an investor's best friend. As Warren Buffett says, "Time is the friend of the good business, and the enemy of the poor one." No wonder value investors tend to be long-term investors! The upshot? Find the best possible $i$ and then let $n$ happen.

## Lesson 3: The Amazing Rule of 72

No investor in the history of the world understands, or has applied, the principle of compounding to a greater degree and with more success than Buffett. Yet he reportedly does most investing math without a calculator. Does he possess a 2-gigahertz mind that's able to grind out multiple power and exponential calculations faster than you can say Coca-Cola? Hardly. Not to say that being the gifted individual that he is, he couldn't perform so many rapid-fire calculations in his head. But he doesn't. Instead, he uses one of the most useful general rules in investing, maybe in all mathematics, as a computational shortcut. It's known as the Rule of 72.

## How the Rule of 72 works

The Rule of 72 is based on compounding formula mathematics. With the Rule of 72 , you can quickly estimate the rate of return or time period needed to double a sum of money with compounding. If you know the rate of return, you can compute the time period and if you know the time period, you can compute the approximate rate of return. Here it is:

Number of years to double an investment at a given return rate:
$=72$ divided by the rate of return (as an integer: the rate $\times 100$ )
Return rate required to double an investment over a given number of years:
$=72$ divided by the number of years
Here are some examples to make the concept clearer:
At 12 percent, it takes six years to double your money (72/12).
$\checkmark$ To double your money in eight years, you must earn a 9 percent rate of return (72/8).
At 10 percent, how many years does it take to quadruple your money? Answer: It doubles in 7.2 years (72/10), so quadrupling would take twice that long, or 14.4 years.
$\checkmark$ If your best friend brags about having bought a house for $\$ 150,000$ that's now worth $\$ 600,000$ and he's had it for 10 years, what is the rate of return? Answer: It doubled twice ( $\$ 150 \mathrm{~K}$ to $\$ 300 \mathrm{~K}$ to $\$ 600 \mathrm{~K}$ ) in 10 years, or once every 5 years. So (72/5) gives a 14.4 percent compounded rate of return. Not bad at all, but as a sharp investor you could well have beaten your friend in the stock market! Not to mention impressing him or her by doing this calculation in your head!

## Return rates done right

Just what is the rate of return on an investment? It depends on how it's calculated. Take a look at the example just presented for the Rule of 72. Your friend brags about buying a house for $\$ 150,000$ and selling it 10 years later for $\$ 600,000$. He may call that a 300 percent return and, because it occurred over 10 years, boasting of an average of 30 percent per year. On the surface, that's correct.

But when evaluating the home purchase as an investment (compared to other investments), one must include the compounding effect to have an accurate, apples-to-apples comparison. If that $\$ 150,000$ were invested 10 years ago in such a way as to allow returns to compound, what rate of return would have produced $\$ 600,000$ ? As approximated using the Rule of 72 , the compounded
rate of return is only 14.4 percent. Although not bad, 14.4 percent doesn't make headlines, particularly compared to long-term stock market returns of 11 percent annually.

The compounded rate of return is sometimes called the geometric rate of return - in contrast to the straight average approach of simply dividing the total return by the number of years (as in 300 percent divided by 10 equals 30 percent annually). So, how do you calculate true compounded, or geometric, rates of return? There is a formula:

Compounded rate of return $=\left[(\text { Ending value/Beginning value })^{(1 / \mathbf{n})}\right]-1$ where $n$ equals the number of years.

In the example, $\$ 600,000 / \$ 150,000$ is 4 . Take 4 to the $1 / 1$ toth power (use your calculator) and get 1.149. Subtract 1, and get 14.9 percent, which is not exactly equal to the Rule of 72 result, but remember that the Rule of 72 is an approximation. You'll have fun at cocktail parties telling people what they really made on their investments.

## Why Lesson 3 is important

The Rule of 72 gives tremendous power to make fast calculations and decisions. It helps you to quickly compare investing alternatives and to speed up investing decisions. Not only that, it can help you figure out how long it will take to become a millionaire, and it's pretty good for impressing your friends.

## Lesson 4: The Frugal Investor, or How Being Cheap Really Pays

What investor hasn't heard the advice "buy low and sell high"? The principle behind this cliché is so obvious that one can hardly write about it. But in the irrationally exuberant markets of 1999 and 2000, this old standard gradually gave way to "buy high, sell higher." Traders (and novice investors experiencing the markets for the first time) bought stocks because they were going up, defying value investing logic.

What's the problem? Well, simply, the higher a price you pay for a stock, the less likely it is to achieve a high rate of return. Suppose that a stock has an intrinsic value of $\$ 75$. If you pay $\$ 100$ for it, you're essentially betting that something good will happen to dramatically increase intrinsic value - or that some greater fool is out there to pay $\$ 110$. True, it may happen, and it seemed to happen with regularity during the bubble years. You may get a 10 percent or 20 percent return on the investment.
behavior) causes short-term high and low prices to move back toward long-term averages. Similarly, and more important for value investors, asset prices over the long run rise or fall to meet corresponding asset values. Several studies have confirmed this. It doesn't always happen, but taking this investing perspective over the long run is like betting with the house.

But suppose that you were to buy the same stock at $\$ 50$ as a value play, meaning that you think it's undervalued. The chance for a 50 percent return reverting to intrinsic value - is much higher than with the at-value or overvalued $\$ 100$ stock.

## Keep your "i" on the ball

Value investors always look for that opportunity to achieve superior $i$ (think back to the formula in Lesson 1). You achieve superior $i$ by buying a stock with good fundamentals, including growth. So you get the growth rate perhaps 6 percent, maybe 8 percent, or even 10 percent. But as a bonus, you also get the return to intrinsic value, which can turn 6 percent, 8 percent, and 10 percent returns effectively into 12 percent, 14 percent, 16 percent, and higher returns. The lower the price paid, the higher the likelihood of aboveaverage returns. This idea comes straight from the teachings of Ben Graham and the practice of Warren Buffett.

Buffett always tries to find a pricing situation leading to an extra 2 percent or 3 percent or more for his investing return, or $i$. Remember Table 4-1? This is a very good thing.

## How much does buying cheap help?

Take a look at Table 4-2. Note how long-term profits jump as the rate of return grows beyond the market average and time has an opportunity to work its magic. An investor consistently beating the market by 2 percent would achieve 20 percent greater return in 10 years ( $\$ 3,106 / \$ 2,594$ ), 43 percent in 20 years, and 72 percent in 30 years. An investor beating the market
by 6 percent would get 70 percent more in 10 years, 189 percent in 20 years, and 392 percent, or almost 5 times as much profitable return, in 30 years.

| Table 4 |  | Compounded Effects of Incremental Annual Returns, \$1,000 Invested |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 year | 2 years | 5 years | 10 years | 15 years | 20 years | 30 years | 40 years |
| Market Return 10\% | \$1,100 | \$1,210 | \$1,611 | \$2,594 | \$4,177 | \$6,727 | \$17,449 | \$45,259 |
| Beat the Market by $2 \%$ | 1,120 | 1,254 | 1,762 | 3,106 | 5,474 | 9,646 | 29,960 | 93,051 |
| Beat <br> by 4\% | 1,140 | 1,300 | 1,925 | 3,707 | 7,138 | 13,743 | 50,950 | 188,884 |
| Beat <br> by $6 \%$ | 1,160 | 1,346 | 2,100 | 4,411 | 9,266 | 19,461 | 85,850 | 378,721 |
| Beat <br> by $8 \%$ | 1,180 | 1,392 | 2,288 | 5,234 | 11,974 | 27,393 | 143,371 | 750,378 |
| Beat by $10 \%$ | 1,200 | 1,440 | 2,488 | 6,192 | 15,407 | 38,338 | 237,376 | 1,469,772 |

Ben Graham bought stocks cheap mainly to provide a margin of safety and to cash in on a return to intrinsic value. Warren Buffett and other more growth-oriented investors may buy cheap to capitalize on growth, with a return to intrinsic value as an added kicker to beat market returns.

## Why Lesson 4 is important

The mathematical power of compounding makes a small increase in investing return, or $i$, very compelling. To increase the chances of achieving a higher $i$, buy cheap. Buy expensive, and you'll be lucky to match market returns.

## Lesson 5: Opportunity Lost

By the time you finish this lesson, you may regard it as an extension of the last one. In Lesson 4, we describe how beating the market with even slightly higher rates of return is a shorter path to wealth. This is especially true if the investments are left on the table to perform, and perform consistently, over
time. This lesson, as the title indicates, is about lost opportunity. What about investments achieving less than market average return? What happens when you cling to these investments? Are they like a bad marriage, not only producing inferior returns but also consuming valuable time that you could put to work elsewhere? From an investment perspective, you bet.

## Pruning the dead branches

Table 4-3 illustrates that it isn't hard to show what happens when you hang on to the losers, or even the inferior "winners."

| Table 4-3 |  |  |  |  |  |  | Compounded Effects of Market Underperformance |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{1}$ year | $\mathbf{2}$ years | $\mathbf{5}$ years | $\mathbf{1 0}$ years | $\mathbf{1 5}$ years | 20 years | $\mathbf{3 0}$ years | 40 years |  |  |  |  |
| Market <br> Return <br> 10\% | $\$ 1,100$ | $\$ 1,210$ | $\$ 1,611$ | $\$ 2,594$ | $\$ 4,177$ | $\$ 6,727$ | $\$ 17,449$ | $\$ 45,259$ |  |  |  |  |
| Under- <br> perform <br> the Market <br> by 2\% | 1,080 | 1,166 | 1,469 | 2,159 | 3,172 | 4,661 | 10,063 | 21,725 |  |  |  |  |
| Under- <br> perform <br> the Market <br> by 4\% | 1,060 | 1,124 | 1,338 | 1,791 | 2,397 | 3,207 | 5,743 | 10,286 |  |  |  |  |
| Under- <br> perform <br> the Market <br> by 6\% | 1,040 | 1,082 | 1,217 | 1,480 | 1,801 | 2,191 | 3,243 | 4,801 |  |  |  |  |
| Under- <br> perform <br> the Market <br> by 8\% | 1,020 | 1,040 | 1,104 | 1,219 | 1,346 | 1,486 | 1,811 | 2,208 |  |  |  |  |
| Under- <br> perform <br> the Market <br> by 10\% | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |  |  |  |  |

Compared to market returns, an investor underperforming the market by 2 percent (or achieving an 8 percent return) falls 17 percent behind a market performer after 10 years, 31 percent behind over 20 years, and 42 percent behind over 30 years. An investor underperforming by 6 percent loses 43 percent, 67 percent, and 81 percent to the market-performing investor over 10,20 , and 30 years, respectively. That's quite a price to pay for underperformance. Now, if your investments are producing negative returns, the results can be quite ugly indeed.

There's a lesson in these numbers: Don't hang on to chronic losers! Not only do you lose, but you also lose out on opportunities to gain. If it's broke, fix it!

## The $\$ 3$ million sports car

Perhaps you can see where this discussion is heading. You're a successful value investor achieving consistent 12 percent, 15 percent, or greater returns, and you have the discipline and fortitude to hang on to investments. Now, even successful value investors can have fun, right? They can splurge on a new car, a vacation, a really nice outdoor barbecue. But savvy value investors also know how much this costs in the long run.

Suppose that you're a modestly successful 12 percent value investor. You spend $\$ 1,000$ on that new barbecue today. From Table $4-1$, you can see that you could have had $\$ 3,106$ in 10 years, $\$ 9,646$ in 20 years, $\$ 29,960$ in 30 years, and $\$ 93,051$ in 40 years instead. Spend $\$ 30,000$ on a new car today, and forgo $\$ 289,38020$ years from now, $\$ 898,800$ in 30 years, and $\$ 2.8$ million in 40 years, at 12 percent! And, if you're a better investor (an investor normally capable of 12 percent returns or better), the "losses" grow faster! So, the better an investor you are, the more the "good things" in life may cost. Ironic, right?

## Why Lesson 5 is important

A value investor's mind operates in a continuous buzz, deciding whether an investment is achieving its best possible returns or whether it should be replaced. Value investors like cheap stocks, but if the stocks get cheap on an investor's watch, the investor should consider a serious reappraisal of a company's prospects. Value investors continuously check for dead branches and aren't afraid to get out the pruning shears. Value investors know the cost of dead wood. Likewise, like frugal citizens, value investors avoid squandering money that could be put to better use and always think of the best use for their capital. For Warren Buffett, a penny found on a sidewalk is "the start of the next billion."

## Lesson 6: Discounting

Lesson 1 discusses the notion that money acquired tomorrow isn't worth as much as money acquired today. This idea is very important for value investors deciding whether to buy a stock today.

The investing decision is almost always based on some future expectation of growth in earnings and cash flow that a company will generate. In fact, a pure value investor defines a stock price as the sum of all future cash flows generated per share. Nothing more, nothing less. Well, as a practical matter, a stock value is less than the nominal value of all future cash flows because of the time value of money. You must discount the earnings or cash flow to achieve an equivalent present value.

## How to discount earnings

If an investment returns a dollar today, a dollar next year, a dollar two years from now, and so forth, each dollar should be discounted for time at a reasonable discount rate. The formula reverses the benchmark formula in Lesson $1, \mathrm{FV}=\mathrm{PV} \times(1+i)^{\mathrm{n}}$. Instead, each year's cash flow is divided by $(1+i)^{\mathrm{n}}$ where n is the number of years until the cash flow is received. The resulting figures are summed into a single figure representing the cumulative present value, or PV.

If the cash flows are even, or unchanged each year, then you can use Table $4-4$ to estimate the present value at a given discount rate and for a number of years. Thus, $\$ 1$ returned on an investment for the next 15 years has a present value of $\$ 7.60$ at a 10 percent discount rate (not $\$ 15$, as would be the case if not discounted).

| Table 4-4 |  |  |  |  |  |  |  | Cumulative Present Value of \$1 Received Each Year |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1}$ year | 2 years | $\mathbf{5}$ years | $\mathbf{1 0}$ years | $\mathbf{1 5}$ years | $\mathbf{2 0}$ years | $\mathbf{3 0}$ years | $\mathbf{4 0}$ years |  |  |  |  |  |
| 4\% <br> Discount <br> Rate | $\$ 0.96$ | $\$ 1.89$ | $\$ 4.45$ | $\$ 8.11$ | $\$ 11.12$ | $\$ 13.59$ | $\$ 17.29$ | $\$ 19.79$ |  |  |  |  |  |
| 6\% <br> Discount <br> Rate | 0.94 | 1.83 | 4.21 | 7.36 | 9.71 | 11.47 | 13.76 | 15.05 |  |  |  |  |  |


|  | 1 year | 2 years | 5 years | 10 years | 15 years | 20 years | 30 years | 40 years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8\% <br> Discount <br> Rate | 0.93 | 1.78 | 3.99 | 6.71 | 8.56 | 9.82 | 11.26 | 11.92 |
| 10\% Discount Rate | 0.91 | 1.74 | 3.79 | 6.14 | 7.61 | 8.51 | 9.43 | 9.78 |
| 12\% Discount Rate | 0.89 | 1.69 | 3.60 | 5.65 | 6.81 | 7.47 | 8.06 | 8.24 |
| 15\% Discount Rate | 0.87 | 1.63 | 3.35 | 5.02 | 5.85 | 6.26 | 6.57 | 6.64 |
| $\begin{aligned} & 20 \% \\ & \text { Discount } \\ & \text { Rate } \end{aligned}$ | 0.83 | 1.53 | 2.99 | 4.19 | 4.68 | 4.87 | 4.98 | 5.00 |

## Discounting uneven cash flows

Applying the formula gets trickier when the cash flows aren't evenly distributed for all future years. It's common for cash flow growth to diminish over time as a business gets larger.

To figure out PV, you must estimate each year's cash flow and discount it according to the year the cash is received and the chosen discount rate. Again, you add up all the value to arrive at a single PV.

The example in Table 4-5 shows the PV of a series of per-share cash flows over 10 years, starting with $\$ 1$ in the first year and increasing by 20 percent for the next 4 years; then by 10 percent for the next 5 years.

Now, how do you know what discount rate to choose? That's next.
Use spreadsheets, such as those available in Microsoft Excel, to make complicated PV calculations much easier. Excel comes preloaded with several preloaded time-value-of-money functions, or you can create your own using the $\mathbf{P V}=\mathbf{F V} \div(\mathbf{1}+\boldsymbol{i})^{\mathrm{n}}$ formula as a basis.
Table 4-5 Present Value of Uneven Per-Share Cash Flows
over Ten Years

\left.| Table 4-5 |  | Present Value of Uneven Per-Share Cash Flows |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| over Ten Years |  |  |  |  |  |  |  |  |  |$\right]$

## Residual value

The term "residual value" sounds pretty technical , and indeed it is. Some value investors assess company value as the sum of all future cash flows, discounted back to the present. In fact, many finance experts consider this the true value of a security. The tricky part is figuring what all means. Theoretically, all refers to infinity, if a company is assumed to last forever. Even if you reduce the relevant all to 50 or 100 years, you end up with a challenging discounting problem, especially if cash flows and growth rates vary over that time period (and they will). Imagine a spreadsheet constructed to discount irregular cash flows expanded to cover 50 or 100 years!
value to all cash flows beyond, say, 10 years. Forecasting growth rates and appropriate discount rates that far out into the future is difficult. Moreover, because of the nature of the discounting formula, individual years don't count for as much. We introduce a computational formula for residual values in Chapter 12. We also share another approach known as the acquisition approach in Chapter 12. In this approach, instead of estimating and discounting cash flows far out into the future, we try to predict the value of the business as an acquisition target at the 10 -year cutoff. This technique helps to avoid the residual value calculation altogether.

Many numbers-oriented financiers and value investors assign a residual value or continuing

## The great discount rate debate

So what discount rate should be used? This is undeniably a favorite debate topic in financial circles. It may be that more business school professors have gained tenure writing articles on this subject than on any other. Regardless, the discount rate chosen is an important factor. Here's what it comes down to. The discount rate should reflect the following:

What it costs to acquire money to invest (which is in turn driven by prevailing interest rates)

What the possible returns are from alternative investments (opportunity cost, also driven by interest rates)

Some compensation for business risk, inflation risk, and financial risk
Unfortunately, calculating these values just isn't that simple. That's why the whole issue is so much fun to debate. What is clear is that the more conservative approach is to set a higher discount rate, which places a smaller value on future cash flows.

Once again, the Buffett approach makes sense. Rather than burn energy striving for a precise discount rate ("it's better to be approximately right than precisely wrong," he quips), Buffett suggests using a minimum of 10 percent, and 15 percent if you want to stay conservative. Fifteen percent should cover the range of possibilities - higher inflation, tax law changes, business cycles,
and so forth. If a stock still looks to be selling at an attractive price even after discounting its cash flows at 15 percent, it probably has the margin of safety that value investors seek.


The artificially high discount rate that Buffett and other value investors use is sometimes called the hurdle rate. As the name implies, it is an aggressive rate of return that your investment or company must exceed to be viable.

## Why Lesson 6 is important

Making a fair and honest evaluation of a company's value often requires understanding the value of its future cash flows. To understand the real value of these cash flows and their relation to today's price, you must discount the cash flows back to the present. You see more about how this concept is applied in later chapters, in particular Chapter 12.

## Lesson 7: Be Wary of Large Numbers

And you thought the whole idea of investing was to produce large numbers. What gives? In investing, like life, some numbers are too good to be true and can't go on forever.

## The 30 percent beanstalk

Your high-tech company (or mutual fund, for that matter) brags in each report of a continuous 30 percent growth in sales and profits. The stock is priced at a lofty 60 times earnings because it's the norm for stocks in that industry to have price-earnings-to-growth (PEG) ratios of 2 (that is, P/E can be twice the growth rate, a topic discussed later). So what's the problem? In a word, sustainability.

Suppose your company has $\$ 100$ million in sales today. To achieve a 30 percent growth rate, it has to achieve $\$ 130$ million in sales next year. So far, no problem. But to maintain this rate, what does the company have to achieve in the second year? If you grasp the compounding thing, you know that 30 percent growth in the second year is $\$ 130$ million plus 30 percent of that figure. So 30 percent growth would require $\$ 169$ million in sales. Still not too bad. But what about in 10 years?

You see the formula coming together. $\mathrm{FV}=\mathrm{PV} \times(1+\mathrm{i})^{(\mathrm{n}-1)}$. (It's ( $\mathrm{n}-1$ ) because we're talking about growth after the first year.) Only this time you don't calculate the future value of an investment. You calculate the future value of sales required to sustain a 30 percent growth bragging right. So for our example:

Future sales in 10 years $=\$ 100 \mathrm{M} \times(1+0.30)^{9}$
Or $\$ 1.06$ billion
In 20 years, that becomes $\$ 14.6$ billion, with an annual incremental growth of $\$ 1.3$ billion at the end of the 20 year period.

Now, if you're the sales manager for XYZ Corporation, assigned the glorious task of meeting shareholder expectations for growth, where can to find the incremental sales? Your company has conquered the world, but Earth is a small planet. Extraterrestrial markets are still pre-emergent. FedEx and UPS have yet to deliver to Mars or beyond. So what happens? Growth rates likely start to decline. Maintaining the growth rate requires greater and greater chunks of incremental dollars, which becomes increasingly difficult as markets become saturated.

Smart value investors recognize the increasing difficulty in maintaining high growth rates, so they project lower rates in years further out.

## The $\$ 20$ billion wall

Over the years, there has been a noticeable trend toward diminished growth when a company hits the $\$ 20$ billion, and then again the $\$ 40$ billion, sales mark. IBM, HP, GE, Home Depot, and even big oil companies have experienced the wall. Companies with $\$ 20$ billion in sales and 20 percent growth rates suddenly see growth rates fall off the table and must buy growth through potentially harmful acquisitions. It seems to happen again at $\$ 40$ billion; HP's 2002 acquisition of Compaq is a good example of this sequence, although it seems to have worked out.

Why? Markets become saturated, and large incremental sales in core businesses become more difficult to find. Additionally, these companies, because of their sheer size, have more difficulty organizing themselves to execute dynamic and aggressive sales plans. The meaning for value investors: Conservative or even zero growth estimates are in order, especially beyond the 5 - to 10 -year horizon.

## The diversification paradox

All TV and radio programs and magazine and newspaper articles on investing start with the same inviolate, unassailable principle. It's presented as if gospel: diversify. That principle goes something like this: "The prudent investor will always look for ways to diversify his or her portfolio by buying multiple stocks or funds in different industries. That way, risk is minimized, and there is a greater chance of achieving market rates of return."

Okay, not bad. Most investors are satisfied with something at least close to market rates of return, and most of them want to sleep at night. The part about "a greater chance of achieving market rates of return" is actually true. But the sheer mathematical fact is that the more stocks you put into your portfolio, the less the odds of beating the market.

Think of the old probability models you studied in high school. If you toss a penny into the air, it comes down heads or tails. Fifty-fifty probability. Toss a few more pennies in the air, say six total, and the odds are you'll get three heads and three tails, maybe two and four, maybe one and five, maybe even all six heads. Probabilities decrease as you go to the extremes, but these outcomes are all plausible. Now throw 100,000 pennies into the air. What are the chances of all 100,000 coming up heads? Desperately small. This is an extreme case, but the point remains: The more stocks you have, the more likely your winners and losers will cancel each other out.

Additionally, suppose you hit a home run and score a 50 percent gain on a stock. If it's one of four stocks in your portfolio and all others break even, the portfolio gains 12.5 percent on average. If it's one of 10 stocks, with all the others breaking even, the gain is only 5 percent. Holding too many stocks dilutes the gains of the winners. Combined with transaction costs and management fees, this phenomenon helps explain why some two-thirds of stock mutual funds underperform the markets, as measured by the S\&P 500 index. But what about reducing risk? True, the more pennies you throw, the lower the odds that they will all come up tails. If the performance of your stocks is really random, then owning more stocks reduces the chance of beating market returns. The converse is also true: Owning many stocks reduces the chance of dramatically underperforming the market.


Value investors aren't random stock pickers! They take the risk out by understanding the companies and their intrinsic value, rather than by spreading the risk across more companies. Value investors are focus investors - driving toward deep understanding of their investments without diluting possible returns through diversification. They see danger in owning too many investments. Instead of reducing risk through diversification, risk may actually increase as it becomes harder to follow the fortunes of so many businesses. Therefore, Warren Buffett and most other value investors reject diversification per se as an investment strategy. They prefer to reduce risk by watching a few companies - companies that they thoroughly understand - more closely.

## Why Lesson 7 is important

As a value investor, know that large numbers can work against you. Large numbers imply diminishing returns. Companies can't grow at the same rate forever. Further, successful value investors reduce risk through focus and by selecting the right companies, not by adding more companies to the portfolio.

## Lesson 8: Inflation, Taxes, Interest Rates, and Risk

How do you factor inflation, taxes, and interest - insidious, largely unavoidable forces - into the world of value investing? You've heard about the wonders of compounding and seen all those seven-figure possibilities on the long-term compounding table. Are you going to let these forces take those gains away?

The answer (again): It depends.
You can imagine these forces acting on your value investments much as the wind acts on a bicyclist. Think of inflation as a persistent head wind, always blowing against you, the issue being how hard. Taxes always blow in your face, too. But as we show you in a minute, you can put up shields to protect yourself from these head winds.

Interest rates can work as a head or a tail wind. High interest rates are a definite head wind, as investment capital becomes more expensive (hence higher discount rates) and safe investments, such as bonds, have relatively more attractive returns. Low interest rates, on the other hand, act as a welcome tail wind, stimulating market performance and helping stocks become relatively more attractive as investments. You can't do anything about interest rates, but you need to watch them for shifts and signs of shift. Finally, risk can act like turbulent gusts of wind coming from all directions. You can manage risk by riding your bicycle slower. Just knowing that risk exists also helps.

Let's look at how these factors affect your investments and investment calculations.

## Inflation

Inflation is a bad word for all investors. In this book, we largely ignore it. Although inflation provides a light head wind that reduces the future purchasing power of your investments, it has the same effect regardless of how you have invested your money. Thus, it doesn't materially influence investing decisions or practice, and you could go silly adjusting all prices and future cash flows for inflation. Furthermore, inflation isn't a cash transaction. You don't write checks to the Consumer Price Index gods. And when you discount future cash flows, the discount rate nominally covers some of its effects anyway. Keep in mind, however, that increases in inflation often lead to increases in interest rates, which can alter your interest in buying stocks.

## Taxes

You can't avoid taxes completely, but you can defer them. We're not talking about tax-deferred IRAs and 401(k) plans here - those are beside the point.

For seasoned value investors, here's a big secret to expanding value and reducing taxes: Don't sell stocks; hold them for the long term. Why? Once again, it's the power of compounding. If your investment grows each year but you sell it each year and reinvest it, you're liable for taxes on your gain. Why is that so bad? Because that chunk is forever denied the opportunity to compound.

Table 4-6 is a rather extreme but illustrative example of the tax and profitability differences between holding investment gains and cashing out frequently.

| Table 4-6 | Deferring Taxes: Effect of Hold versus <br> Sell-and Reinvest Strategy |  |  |
| :--- | :--- | :--- | :--- |
| Ye Sell | Sell, Pay Tax, <br> Reinvest |  |  |
|  | Value of <br> Investment | Value of <br> Investment | Tax Paid |
| 1 | $\$ 2.00$ | $\$ 1.64$ | $\$ 0.36$ |
| 2 | 4.00 | 2.69 | 0.59 |
| 3 | 8.00 | 4.41 | 0.97 |
| 4 | 16.00 | 7.23 | 1.59 |
| 5 | 32.00 | 11.86 | 2.60 |
| 6 | 64.00 | 19.46 | 4.27 |
| 7 | 128.00 | 31.91 | 7.00 |
| 8 | 256.00 | 52.33 | 11.49 |
| 9 | 512.00 | 85.82 | 18.84 |
| 10 | $1,024.00$ | 140.75 | 30.90 |
| 11 | $2,048.00$ | 230.82 | 50.67 |
| 12 | $4,096.00$ | 378.55 | 83.10 |
| 13 | $8,192.00$ | 620.83 | 136.28 |


| YEAR | Value of <br> Investment | Value of <br> Investment | Tax Paid |
| :--- | :--- | :--- | :--- |
| 14 | $16,384.00$ | $1,018.15$ | 223.50 |
| 15 | $32,768.00$ | $1,669.77$ | 366.54 |
| 16 | $65,536.00$ | $2,738.43$ | 601.12 |
| 17 | $131,072.00$ | $4,491.02$ | 958.83 |
| 18 | $262,144.00$ | $7,365.28$ | $1,616.77$ |
| 19 | $524,288.00$ | $12,079.06$ | $2,651.50$ |
| 20 | $1,048,576.00$ | $19,809.66$ | $4,348.46$ |
| Cumulative <br> Tax | 377,487 |  | 11,142 |
| Cumulative <br> Net Profit | $\mathbf{6 7 1 , 0 8 8}$ | $\mathbf{1 9 , 8 0 9}$ |  |

Admittedly, Table 4-6 is extreme, as it assumes an annual doubling of your investment. It also uses a high, short-term, combined income tax rate of 36 percent - in reality, if you sell "long-term" gains, at least for now, this number is 15 percent for Federal and varies by state.

Regardless of the assumptions, taxes do matter. The difference is compounding. Every dollar, every doubled dollar, and so on is left untouched in the nosell strategy, while in the sell-and-reinvest strategy, 36 percent of the golden eggs are sent to Uncle Sam and his statehouse brethren each year. The result: $\$ 671,000$ in net profit for the hold strategy versus $\$ 19,809$ for the sell-andreinvest strategy, even though under the hold strategy, you pay more than 30 times as much total tax! Both you and Uncle Sam win! Why? One hundred percent - not 64 percent - of the golden eggs are allowed to hatch into geese. This result speaks volumes for the value investor's buy-and-hold approach.


So why does Congress go so far to provide tax breaks in the form of taxdeferred retirement savings plans, like IRAs and $401(\mathrm{k}) \mathrm{s}$, anyway? Some pundits say it's because they know they'll get a larger tax take later on, when these massively larger investment pools are withdrawn as taxable income. If you doubt they're really that pragmatic, you have a lot of company.


And of course, you don't want to buy and hold yourself down the drain! If a company's fortunes and prospects change, selling and finding a new investment, regardless of tax consequences, make sense. If your goose isn't laying golden eggs, you need to find another goose!

## Interest rates

As just stated, interest rates can act as a head or tail wind. Higher interest rates tend to diminish perceived investment returns, and hence stock prices, while lower interest rates stimulate economic and profit growth while making stock investments look relatively attractive. So what do you use as your investment weather vane to determine interest rate direction and effect?

Like so many investing issues, much has been written on this topic. For illustration, we'll use the Ben Graham intrinsic value formula from Chapter 3:

Formula: Intrinsic value $=\mathbf{E} \times(2 \mathbf{g}+8.5) \times 4.4 / \mathbf{Y}$
where...
$\mathbf{E}=$ annual earnings
$\mathbf{r}$ = average growth rate
$\mathbf{y}=$ the interest rate
The second expression, (4.4/y), is what's important here. The interpretation is clear: If the interest rate is greater than 4.4, the expression will calculate to less than 1, dragging down the intrinsic value. Similarly, interest rates less than 4.4 result in a positive influence and a tail wind for intrinsic value.


Is 4.4 still the right number? Conceptually, Ben Graham's approach is good for value investing calculations. The baseline interest rate, which Graham derived from studying long-term corporate bond rates, is probably a little low by today's standards. Considerable debate exists on what kind of interest rate to use and whether it is a long-term or a short-term rate. Some investors watch 10-year Treasury securities, while others watch the Fed Funds and discount rates set by Ben Bernanke and the Federal Reserve Open Market Committee.

From experience, anything greater than 5.5 percent probably represents a head wind, and anything less than 5 percent for these key rates probably represents a tail wind. Interestingly, as both inflationary pressures (energy and food prices) and recessionary pressures (credit squeeze, home price contractions) existed in the 2006-07 timeframe, the Fed kept the rates right in the middle - 5.25 percent - for over a year. Interest rates change over time, depending on the economy, inflation and investor expectations.

Apart from Graham's intrinsic value formula, interest rates are also a factor in discounted cash flow approaches (introduced earlier in this chapter). Current interest rates affect the discount rate. The higher the current interest rates, the higher the discount rate, resulting in a lower total investment value using the present value formula. Conversely, lower interest rates turn into lower discount rates, which act as a tail wind, and relatively high valuations.

Again, there is more theory than fact on how to quantify the effect of interest rates on discount rates, so the Buffett approach, calling for simple, conservative, generally inclusive assumptions devoid of heavy quantitative analysis, generally makes sense. Buffett would likely set the discount rate at 10 percent in a tail wind environment and closer to 15 percent in a head wind environment.

## Risk

Risk is perhaps the most debated, theoretical, difficult-to-quantify element of all. Many types of risk in the business and investing world are beyond the scope of this book. The theorists who have tried to quantify risk as a component of investment analysis have generally circled around the notion of beta - a simpler-than-most Greek letter formula that assesses a stock's price movements versus the market and versus other stocks. Essentially, a beta greater than 1.0 means that the stock tends to fluctuate farther in the same direction than the base market index or portfolio of stocks it's being compared with. A beta less than 1.0 means that the stock price moves less in the same direction, or even in a different direction. If you've read any investing books, you've probably encountered beta somewhere in the discussion and been told that high beta stocks are riskier and low beta stocks are safer.

What's wrong with this picture? It turns out that beta is relatively meaningless for value investors. Why? Because it measures the fluctuation of stock prices. As a value investor, you aren't concerned with stock price fluctuation, only whether the stock price is a bargain compared to long-term value. Value investors ignore the type of risk measured by beta. They're more interested in how the company performs, not how the stock performs relative to other stocks.

Beta is useful only in the sense that higher price volatility for an issue may reflect underlying uncertainty in the company itself, such as with many of the higher flying tech stocks in 2000 and 2001. But the risks associated with these stocks become apparent long before you examine beta.


If you reflect again on Buffett's approach, you realize that the risk isn't inherent in the stock's price, but rather on the clarity and consistency of a company's future prospects. The more unpredictable (hard to understand) the company and its future, the greater the risk. There is no way to easily quantify this kind of risk. Generally, business risks are accounted for in the discount rate by making a conservative assumption - a high discount, or hurdle, rate - to provide a margin of safety.

## Why Lesson 8 is important

Inflation, taxes, interest rates, and risk all affect your investments and investment decisions. Inflation can be left alone as a decision factor, but watch out for possible effects on interest rates. Taxes affect how investments should be managed. The more taxes can be deferred, the higher the long-run total return. Taxes don't generally influence the buy decision, only the sell decision for a stock. Interest rates can increase or decrease the valuation of a company as an investment. Risk for the value investor is defined in terms of the company and its prospects, not the volatility of its stock price. Where more risk is perceived, you seek a greater margin of safety, or discount, between price and value. Quantifying these effects is difficult at best; but it can be done by adjusting discount rates in valuation formulas or by requiring higher rates of return before committing investing dollars.

## Chapter 5

## A Guide to Value Investing Resources

## In This Chapter

Finding the information value investors seek
$>$ Looking to investor resources for facts and analysis

- Exploring value investing tool kits and Web sites

$w$ithout a doubt, information is the fuel that drives all forms of investing today. This is especially true for the do-it-yourself investing styles that have emerged since the 1980s with personal computers and the Internet. Whether you're a long-term value investor or a minute-to-minute trader, you use some form of financial information to make investing and trading decisions.

This chapter provides an overview of the types of investing information needed to make value investing decisions, and the various sources of that information. We examine the quality of those sources and their cost to you, but by no means do we offer a complete list. The chapter presents some favorites with an emphasis on low cost and simplicity. It's a good guess that your approach to acquiring information and other tools is similar to your investing approach: It's value-based.

In some ways, this chapter puts the cart before the proverbial horse because we haven't yet described value investing techniques and practices, and you may not know what to look for. The information in this chapter will become more valuable as your understanding of value investing increases, so the best advice is to read this chapter once as an introduction and then return to it repeatedly as you refine your value investing system.

It's assumed that most of you are connected to the Internet. The Web has made research and information gathering so easy, cost-effective, and straightforward that, really, no investor should do without it. True value investing is a long-term endeavor, making the real-time nature of Web-based information relatively less important compared to other investing styles. But it's much
easier and often cheaper on the Web. That said, published information available by mail or even at your local library can be quite sufficient. Most of what's presented here, however, is available online.

## What a Value Investor Looks For

No two investors are alike - that's a fundamental principle of investing and investors. Inevitably, investing combines art and science. Quantifiable and unquantifiable facts are put into the pot, and the resulting stew is interpreted according to taste. The "science" part is using numbers, facts, and formulas to measure business value. The "art" part is taking all the facts and measurements together and weighing them according to intuition and experience to judge the most likely outcome or set of outcomes.

This intertwining of art and science is, in fact, what makes markets work. The difference of opinion and judgment coming from thousands of investing "pots," combined with differing investing objectives, is what makes markets go up and down. Just as there is no single value investing formula, there is no one set of investing resources guaranteed to make you a successful value investor. We can provide only the ingredients - and the pot.

Further, like so many other things in life, the law of diminishing returns applies. Too much information is, indeed, too much information. As all bargain hunters know from experience, driving by every gas station in town in search of a slightly better deal doesn't make sense. Similarly, using too many information sources will probably just confuse you. The best advice: Pick a couple information sources, learn all you can from them, and use them consistently. In other words, keep it simple. The rest of this chapter is concerned with the facts, analysis of those facts, and the intangibles value investors need to properly blend art and science into their investing decisions.

## Facts and more facts

All value investors need facts about a company's financial and operating performance. These facts, and there are lots of them, provide the foundation for value analysis. Value investors look for current or most recent performance and also trends and changes that can help paint a picture of the future. These facts are available from the company itself as financial statements or from one of many information sources that repackage company-provided data for investor use.

## Financial results

Financial statements provide a picture of company assets, liabilities, earnings, and growth. The balance sheet presents a snapshot of assets, liabilities,
and net worth. The income statement shows revenues, expenses, and earnings for a set period of time. The statement of cash flows follows the income statement, showing where cash is obtained and used in the business. Each of these usually has supporting tables and information conveying other key aspects of financial and operating performance. See Chapters 6-8.

## Financial trends

As presented, financial statements usually show the most recent performance, as a snapshot (balance sheet) or as the most recent period of activity (income and cash flow statements). The most recent information is, of course, important. But it is also helpful to capture and measure change as it occurs over time. Like history itself, the past, and the changing trend patterns throughout the past, often suggest the future.

Good trend data, and especially good trend analysis, is hard to come by. Many financial sources, including company reports, show only the past two, maybe three years of performance. Not bad, but seeing where a company has been for the last five, ten, or even more years is really helpful. For example, if profits or profit margins have grown steadily over the last three years, that's nice to know. But it says more if that trend is solid over the past ten or so years. Better financial information sources give enough facts to see trends.

## Comparative metrics, ratios, and percentages

Similarly, it's easier to see how good or how bad a set of facts is by comparing it to another set of facts - either within the boundaries of a single company or across different companies in the same business. From raw financial data the value investor can construct ratios - relationships between facts that offer clues to financial safety, quality, profitability, and efficiency, thus providing a clearer picture of company value. Ratios also serve to normalize data so that companies can be compared to other companies or whole industries. Price/earnings, price/book, price/sales, and debt/equity are examples, and there are many others. We explain more about ratios in Chapter 10.

Like ratios, percentages relate facts to other facts and help paint a clearer picture of company performance and normalize data for comparison. Examples include return on equity (ROE), return on assets (ROA), and gross and net profit margin. ROE, ROA, and margins are explored in depth in Chapter 13.

## Marketplace facts

As will be seen later on, financial facts represent past business results produced by a business, while marketplace facts can often be a leading indicator of future financial results. So it's important to understand metrics like market share, customer base, or unit sales growth wherever possible. Unfortunately, companies aren't required to report such facts and often choose not to do so for competitive reasons - you'll have to rely on what a company does disclose and on market analysis done by third parties.


The term market or marketplace is used frequently throughout the book. We're talking about how a company performs in its marketplace - where it sells its products and services - not how it performs in the stock market. Marketplace information is not about stock price history or trends, relative strength, or any other technical analysis of stock price behavior.

## Operating facts

Certain kinds of operational facts or metrics can also be used as a measure to compare companies or to support financial analysis. It's interesting to know the number of employees, stores, plants, or square feet as measures of size of operations. From there, one can determine productivity or efficiency - how much revenue, profit, and so on is produced per unit of operational activity. Hence, some call these unit measures. Some unit measures are general, such as employee counts, while some are more specific to a particular industry, such as seat miles flown for the airline industry.

## Fact sources

As you can probably imagine, it's easy to immerse yourself into more facts and data than you can possibly absorb or do anything useful with. The trick, as a value investor, is to develop a series of sources providing what you want, in the form you want it, with the right timing, so that you can analyze a business or get a useful update without spending hours on the details.

More information is not always better. Seasoned investors find and use the right sources for the right information at the right time at the right cost.

## Annual and quarterly reports

Most American companies are required by law to provide annual and quarterly financial summaries to their investors and the financial community. There are two kinds of annual reports: One is a "consumer-friendly" version with pictures and descriptions of the company's business with the appropriate financial facts included, usually in the back of the report. The other is the so-called " $10-\mathrm{K}$ " annual report, submitted according to guidelines to the Securities and Exchange Commission (SEC). This report is more detailed overall, with more supporting financial facts and an analysis of the company business, including key marketing and operating facts.

Quarterly reports, also required, summarize the most recent business activity and major changes during the quarter. The "10-Q" version, similarly, has more detail and is cast to SEC standards. Annual reports give a good handson financial summary, often with a healthy dose of marketing and operational data. They may have considerable "lookback" data for determining trends, but not always. Quarterly reports are usually issued concurrent with earnings announcements, but annual reports may considerably lag an actual business year.


To get 10-Ks reliably and quickly, the SEC created a Web site known as "EDGAR," or "Electronic Data Gathering And Reporting." "EDGAR Online" can be found at http: / /sec.gov/edgar.shtml. While Edgar will help you find annual reports and other filings, today it's almost become easier just to go to the company "Investor Relations" page. Annual reports are usually available, are easily downloadable, and have indexes to help you hone in on what you want. The upshot is you don't have to mail the company a postcard and wait 3 weeks to get an annual report (or buy shares) like you did 20 years ago.

## Financial portals

Printed materials, such as annual reports, used to be investing mainstays that is, before the Internet. The Internet has done wonders for packaging information, enabling investors to quickly find the current information they need, all without waiting or going anywhere.

Financial portals, such as Yahoo! Finance (finance. yahoo. com), assemble vast amounts of company and performance information, including business descriptions, financial summaries, news items and some comparative analyses, performance analyses, and screening tools. Portals are a great source for quick overviews or updates, usually with links to more detailed information.

Although Yahoo! Finance is probably the leading financial portal today, there are others that bear watching, like Google Finance (http://finance. google.com). Google Finance is currently a work in progress, but Google has long demonstrated a knack for providing the right stuff with easy navigation.

## Broker sites

Some years ago, broker sites, especially the Internet brokers like E*Trade and Ameritrade, led the way in bringing information to investors online. Today, most broker sites, even the traditional ones, enable some investing analysis. The quality and ease of use of their tools varies, and in many cases you have to have an account to get the "good stuff" like professional analysis or stock screeners. Today, most of these sites are geared only to very high-level analysis and packaged recommendations, like Standard \& Poor's rating reports.

## Research services

There are dozens of companies set up to provide data and analysis to investors; however, many aim at providing these products to professional investors, not you. Companies like S\&P and Hoover's offer huge packages of investment information, but of course, the issue is cost, which can run into the thousands. At this point, Value Line is the one research service aimed at individual investors providing a complete package of - as the name would suggest - value-oriented facts and analysis. More at the end of this chapter.


The best "fact" tools allow investors to (1) view results over time; (2) tie financial performance to operating measures, as in sales per employee or sales per square foot metrics; and (3) compare companies to each other and industry averages.

## The soft stuff

In addition to financial information, value investors want a sense of a company's management effectiveness and market position. This is where a lot of the "art" comes in. Understanding a company's products and markets is an exercise in judgment helped by looking at Web sites; advertising and marketing campaigns; the company's own description of its products; and what you see, hear, and experience on the street.

Management effectiveness can be gauged by looking at a company's financials and financial ratios, previous marketplace and financial decisions, business execution, acquisitions and mergers, public statements and other "track record" items. Many value investors look at management ownership of company stock as a signal of management commitment.

Market position refers to a company's approach to the marketplace and the resulting success - or failure - of that approach. Some elements of market position can be measured - like market share - but most of the market appraisal - like brand strength - is subjective. We take a closer look at these "intangibles" in Chapter 14.

## The company Web site and annual report

Almost as if in dating or employment relationships, first impressions can be important. And today - unless you've been directly involved as a customer or in some other way with a company - first impressions are likely to come from a company Web site.

Company Web sites can tell a lot about a company, including how the company sees itself. A well-organized and presented site, offering easy to get information both to customers and prospective investors, says a lot. Some sites give too much or too little detail - and seem more a monument to management or some professional marketing agency than a real portal into a company's business or intentions. It doesn't take long to figure out.

Annual reports - though gradually being replaced by the drier regulatory 10-K format - can also reveal how a company views its business. Again, customer focus and focus on specific facts and figures are better than endless pictures of managers "in action" at some company facility. If a company is proud of what it does, and talks to you about it on the straight and narrow, that's a plus.

## News releases

Most companies have a public relations department, and the job of those PR departments is to disseminate news about the company. Some of it relates to specific company events like annual meetings, earnings releases, or conference calls, while others occur on a more ad-hoc basis, like new product announcements or management changes.

Value investors look most of all for honesty, openness, and understandability in these messages. They look for a balance of good and bad news and willingness to admit mistakes, all delivered in clear, crisp language not overly clouded with jargon or business buzzwords. It's what they say and how they say it that counts.

If you hear or read something like, "...we're leveraging our core competencies to achieve scalable results in our global off-shoring enterprise," look out below. This sentence has little to no real meaning - if they have nothing specific to say, they probably aren't doing much that's specific, either. Look for another investment.

## Financial commentary

Of course, not all commentary comes from the company itself. Journalists and financial experts write stories about companies all the time, especially larger firms. The stories, which can be found both online and offline, usually highlight key facts, blending in analysis and subjective assessments - in short, they add value.

Value investors should tune in to what the journalists are saying - not to be taken as gospel, of course, but as another view to consider. Many financial journalists have access to information that most value investors do not from professional data sources, industry observers, and often the company itself.

## In the marketplace

For most companies, the real "soft stuff" lies in how the company positions itself in its marketplace, and whether or not it is succeeding with that position. It can make or break a business.

Value investors should consider how well a company is doing in terms of customer perception and brand strength. Are customers satisfied with products? Are they loyal? Do advertising campaigns work? Is the brand an asset or a work-in-progress? If the company is competing on price, is it successful?

And is the strategy clear? Realistic? Executable? Or muddy, sort of, "we're everything to everyone," with no clear focus? And what about operational efficiency? Does it deliver the goods? In a way that creates a positive customer
experience without giving away the store? Long lines at Starbucks suggest good business - but also suggest a likelihood that some customers are being turned away. Realizing that specific answers are hard to come by, such are the kinds of answers a value investor would seek. It's where the "art" enters the value equation.

## Sources of soft stuff

The list of "soft stuff" sources is almost endless. As a value investor, you'll develop your own ways to tune in to happenings with your company, its management, and marketplace success. Again, no two investors will do this alike. Among the many sources are the following.

## Financial and investing Web sites

Financial portal Yahoo! Finance has already been mentioned, and will point to a lot more information about a company located and posted in various corners of the Internet. MarketWatch (www.marketwatch.com) and theStreet.com (www. thestreet.com) offer general news and journalistic commentary about companies across the board, while Morningstar and The Motley Fool (more on these later) provide more thorough analysis generally from a value perspective.

## Business journals

Old standbys like The Wall Street Journal and Business Week still offer timely and high-quality journalistic appraisal of companies, often with a value slant. Trouble is, they write about the companies they choose, not what you want to read about at a given moment. You'll find a few nuggets occasionally in Kiplinger's, Smart Money, and Money magazines.

## Trade journals

Value investors learn about the businesses they invest in, and reading about a trade can be one of the best ways to keep up. Various journals and Web sites are available to follow everything from the restaurant industry to military electronics. Hobby and special interest periodicals can help, too - the latest PC magazines can keep you up to date with the computer industry.


Sometimes industry-specific Web sites can offer lots of unique and comparative factual information to go with the soft stuff. For example, the U.S. Department of Transportation Bureau of Transportation Statistics offers detailed snapshots of some 26 U.S. air carriers, loaded with marketing, operational and financial information - check out www.transtats.bts. gov/carriers.asp.

## Conference calls

Broadband Internet service has made it easier and more popular to listen in on quarterly earnings conference calls held by management. These calls, once held mainly for the benefit of security analysts, can now be tuned into in real time or as archived material through Yahoo! Finance and other portals, and usually through the company's investor relations page. For deeper and more complete conference call access, including scheduling tools, "BestCalls" (www.bestcalls.com) is worth a look.

Most conference calls offer a scripted management review of the "hard" numbers, followed by a question-and-answer session with the analysts. These analyst sessions often go much longer - and deeper - than the script. It is especially during these "Q\&A" sessions that "soft stuff" like marketplace intelligence and other business nuances come forth as an explanation of financial performance or projections. In a conference call you may hear that a sales slump for manufactured decking producer Trex Corporation is due to inventory cutbacks at Home Depot and Lowe's, their largest sales channels.

## Heard (and seen) on the street

Above all, most value investors develop a knack for casual and informal observation of the business world around them. Which companies are doing well in the marketplace? Which companies have a unique and different story likely to give sustainable competitive advantage? Which companies have barriers to competition?

Value investors hit the streets and stop, look, and listen to what's around them. They talk to customers and employees to get the "scoop" on what's working and what isn't. They look at facilities for signs of success or failure. One famous story involves Warren Buffett, who, when trying to decide whether to invest in a gasoline additives business, watched the number of tank cars being switched in and out. Now most investors won't spend a lot of time hanging out by railroad tracks, but if stuck behind a train, you may as well watch to see which ethanol company is shipping the most product!

## Analysis tools

Beyond the facts and the "soft stuff," value investors occasionally use specially packaged tools to help select companies to watch or to develop a value analysis.

## Screeners

Stock screeners come in many shapes and sizes. The better ones offer more value-oriented screening factors like cash flow, cash on hand, profitability, and return on assets. Others are more oriented to stock price behavior, which of course, generally isn't part of the equation.

Screeners change, so it's hard to catalog them here. Some require brokerage accounts or fees to access. Customizable screeners are best, although some of the "prepackaged" screens are helpful, too. The best at the time of this writing are at MSN's "Money Center," and at Fidelity Investments. The latter requires an account, but with their broad management of retirement plans, many have the requisite account. A Google search of stock screeners will return the latest available.

## Analyzers and calculators

Like screeners, analyzers come and go. Analyzers usually package financial information and deliver it with an analysis of a company's current and future value based on a set of assumptions. Currently the best is offered free by independent investment service "iStockResearch" (www.istockresearch. com).

## Value Investing Tool Kits

While the number of investing resources available has exploded with the advent of the Internet, we still have found no such thing as a "complete" tool kit for value investors. That would be too easy, and would likely be impossible since as stated at the outset, no two value investors do it alike. But among all that's out there, three packaged sets of resources and analyses for value-oriented investors stand out, and are at least worth a look for current and aspiring value investors. The "resources" include not only decisionmaking facts and tools to help in decision making but also worthwhile educational tools to learn more about value investing and how to incorporate more factors into a business appraisal.

## Morningstar

Morningstar (www.morningstar.com) is probably best known for its original roots as a mutual fund Web site and its well-known classification and rating system for funds. It is still the premier financial site in that space, with plenty of information and analysis on mutual funds, ETFs, closed end funds, and other investment vehicles.

More recently, Morningstar has come into its own as a stock analysis site. It offers plenty for the do-it-yourself investor, including financial information, stock screeners, and commentary from an analyst staff. Most useful for setting Morningstar apart from the others is its analysis of economic "moats" -

## Follow the leader

If you're reading this book, you probably (at least to a degree) aspire to be an independent investor. That's a good thing. But no matter how independent you are, there is value in following the lead of other successful investors. Why? Expertise, maybe - but really, it's about efficiency. Why reinvent the wheel? If well-known
investors like Warren Buffett or George Soros own a stock, why shouldn't you at least consider it? So, while it may take a dose of humility, sage value investors follow their idols. Some of those idols - along with tips on how to follow them are listed at the end of Chapter 3. So don't be afraid to learn from the masters.
that is, competitive advantages and barriers to competition a company may enjoy. Overall, Morningstar analysts take a market-focused and growthoriented view of value; we like that. The free service is good, and for $\$ 15.95 /$ month or $\$ 145 /$ year you can get a "premium" service giving access to more complete stock analysis, a state-of-the-art stock screener, and portfolioanalysis tools. A free trial is available.

## The Motley Fool

Edgy, contrarian, downright funny at times, The Motley Fool (www. fool . com) has grown far from its roots as an America Online page back in 1994 to becoming a full-fledged investing Web site. Its motto, "To educate, amuse, and enrich," says a lot. Motley Fool, or "TMF" in lingo, brings educational resources and sharp commentary to ordinary online investors. (Books by founders David and Tom Gardner are also worthwhile reads.) Much of its commentary centers on "rule makers" - stocks and companies that follow convention - and "rule breakers" - contrarian picks that may not show value in the rear view mirror, but have everything pointed the right way. Its close following of Starbucks over the years is a case in point.

TMF places great importance on brand, and closely follows value indicators like dividends and stock buybacks. It is a staunch advocate of companies that treat both their customers and their investors well. Articles also give solid review and commentary on company financials, saving you a lot of legwork and hitting the important stuff. TMF articles citing companies appear regularly in financial portals like Yahoo! Finance for free. While much of their content is free, there are also subscription services for stock research and analysis - like the aptly named Hidden Gems newsletter available for \$199/year.

## Value Line

Sadly for we value investors, not everything out there is free. If we're willing to open our wallets, possibilities expand. If you're willing to spend the money, lots of paid-for investing services are available to the more serious value investor. Professional database and analysis services targeted to the billiondollar fund manager would be nice to have, but the $\$ 10,000$ annual price tag probably places them beyond your interests. One moderately priced service targeted to the independent investor segment has been doing its thing for some 50 years and costs less than \$1,000 a year (and can be had under the right circumstances for free): Value Line.

Value Line publishes distinctive one-page company summaries designed especially for value-oriented investors (the name is a giveaway, right?) The traditional Value Line Investment Survey package consists of sets of one-page bound reports on newsprint mailed biweekly to subscribers. Each biweekly set features five to ten industries and all companies judged to be within the industry. Sixty-plus analysts cover 1,700-plus companies in depth, usually once per quarter. And most of it is also available online accompanied by the search and screening tools you'd expect to find.

Value Line provides basic company facts but smartly narrows it to what's needed to appraise the business. The Statistical Array presents a composite of ratios and percentages often specially tuned for an industry, for example, the insurance industry. Analyst commentaries are brief and full of insight. Although Value Line goes beyond to suggest stock timeliness and safety (and it has done well with these judgments), the greatest value is delivered before making these recommendations. Value investors are do-it-yourselfers, but a little help never hurts. The Value Line Investment Survey costs $\$ 598 /$ year for the printed version and $\$ 538$ for the online version. There are smaller, more focused products available too - for small cap stocks, convertible securities, and other more specialized analysis. Trial versions are available for a small charge.

Many libraries and brokerage firms with physical offices still carry the printed Value Line Investment Survey on their shelves. Depending on where your local library or broker is, you may want to try this path before committing your dollars to a subscription.

## Chapter 6

## Statements of Fact Part 1: Understanding Financial Statements

## In This Chapter <br> Understanding the functions of accounting and financial reporting <br> $>$ Looking at recent trends in financial reporting <br> $>$ Examining mainline financial statements and what they're for <br> Using financial statements for value investing.

$K$nowledge is power. Nowhere is that more true than in the investing world. Value investors need to know about the companies they invest in, just as traders need to know what's happening in the market minute-byminute. In either investing space, absence of knowledge reduces investment decisions to mere guesswork.

Fortunately for the value investor, the SEC requires publicly traded companies to publish complete financial information about themselves. An enormous amount is available and easy to find. But for most of us, unfortunately, it's too much information, and too confusing. How many of you have read an annual report from cover to cover and gained a solid understanding of the business from doing so? Not many, right?

Most people who open an annual report look at the pictures and read a few highlights - if they open it at all. Some may read management's optimistic commentary about the strength of the company's markets, products, and financials. A few may look at the colorful graphs and charts. The more curious look enviously at executive salary and option grant disclosures.

But what about the financials themselves? The goes-into's and goes-outta's indicating the true health and success of the business? The challenge is to acquire the right information about a company and then to convert it into
actionable investing knowledge. This knowledge reveals the true character and dynamics of a business, the intrinsic value, the business performance characteristics that conclusively indicate whether you'd want to own a company - which in turn may suggest that it's a good place to invest.

To the untrained eye, most of the information public companies disclose is too complex and detailed to make much sense of for the common reader. The unknowing reader is unaware of what's important and may even be misled. Although it was worse prior to the 2001 Enron and WorldCom scandals, it is still possible to present legally correct information in ways that the true meaning isn't necessarily obvious to the investor.

The goal of this chapter and the next few chapters is to provide a guide for separating the wheat from the chaff. You won't emerge from this section of the book prepared for the next CPA examination or a career in a corporate finance department. You won't be able to prepare financial statements. The main idea is to know what you need to know to invest rationally and wisely.

We start with a basic overview of financial statements and moves forward into the balance sheet, income, and cash flow statements. Building on that base, it advances into basic financial analysis, using ratios to gain a better understanding of what the financial data tell us. Along the way, you'll see some of the tricks of the trade and creative accounting practices that can and do deceive the inattentive investor from time to time.

## Accounting Isn't Just for Accountants

Why is accounting so important, anyway? Why does an individual investor care how a company counts its beans? The purpose of accounting is just to pay bills, collect money owed, pay taxes, and keep track of what's in the bank, right? And to keep a small army of CPAs, analysts, and clerks employed? Wrong. Accounting, and the financial reporting that emerges from accounting, serves a critical function: to reflect the economic reality of a company and its business.

Accounting and accountants are supposed to project a fair, unbiased view of company performance. Accountants build financial reports according to accepted practices in the field, which dictate such principles as substance over form, conservatism, and materiality. But despite (and maybe because of) the fact that no fewer than three governing bodies decree accounting and reporting practice, a degree of latitude and flexibility exists in how reporting is actually done.

This flexibility exists mostly in the valuation of assets and determination of revenue and cost. Those issues are covered in Chapters 7 through 9. And companies took advantage of this flexibility, especially in the late 1990s as
they became increasingly under the gun to perform, especially in the short term. Back in those days, the art of creative accounting bloomed to help companies achieve desired levels - on paper - of performance. Accounting is supposed to be used to measure and report business results, not to achieve them!

Value investors need to be smart about what and how much to question in a financial report. The investor who spends his time questioning the origin of every number in a financial report will never come up for air and probably will never make a successful value investment as a result. Without seeing all background data, you can't possibly understand the origin of all those stated numbers anyway. The smart investor knows what to look for in a statement and what levers a company's management can throw to convey a certain image. It's okay to be a skeptic, but it's probably not productive to dispute every figure in the report. As with so much else in life, focus on what's important.

## The State of Financial Statements

If every company were able to report information as it pleased, financial reports would be apple-to-orange nightmares, rendering all information useless to everyone. The purpose of financial reporting is to present accounting information in a comprehensible, consistent format. But one person's "comprehensible" may be another's "complex," and "consistent" doesn't mean "exactly the same." Why did financial reporting evolve this way? In part, because financial statements serve a lot of different readers.

## A family of readers

Financial information isn't just for those who commit equity capital to a company. Those who commit debt capital (as in loans from banks, for example) have an equal, if not greater, vested interest in a company's financial health. Here's a short list of interested parties and what they want to know:
$\checkmark$ Shareholders want to know about a company's short- and long-term financial health and performance to decide whether to keep or expand their investment.
$\checkmark$ Potential shareholders want to know a company's financial health and performance before they make an initial investment.
Creditors and lenders keeping track of a company's financial health to know whether to keep or expand credit.

Suppliers want to better understand a company's business to determine product fit and know whether to extend credit.
$\checkmark$ Customers, especially business-to-business customers, want information about a company's products and dependability as a supplier.
$\checkmark$ Potential employees want to understand a company's products and culture to determine whether the company is stable.
$\checkmark$ Government statisticians and market analysts look at financial reports to understand industries and financial performance within an industry.

The point: As an individual investor, realize that you aren't the only customer. It's hard to speculate how company-published financial information would change if investors were the only customer, but it's unlikely that reporting will change to perfectly meet the investor's needs. You have to make do with what you have.

## A slave of many masters

Imagine if the tax code were specified not only by the IRS, but also by three or four different agencies, public and private, all with a hand in the matter. That scenario is pretty close to what the financial reporting professional faces.

No fewer than three agencies are involved in creating the rules and constructs for reporting financial performance:

> The Financial Accounting Standards Board (FASB)
> The U.S. Securities and Exchange Commission (SEC)
> The American Institute of Certified Public Accountants (AICPA)

Each entity researches and publishes opinions and acts as a watchdog. The SEC can require compliance to its own dictates and to those of the others, especially the FASB. The FASB issues numbered guidelines for financial reporting that companies can choose to adopt or be required to adopt by the SEC. The SEC acts as overseer and enforcer of regulations and cooperates with the FASB and other agencies to initiate new regulations and standards. The AICPA sets standards governing the accountancy profession and the conduct of individuals within that profession.


While the FASB, SEC, and AICPA shape most financial reporting law and practice, recognize that Congress itself plays a big role, especially with sweeping legislation like the 2002 Sarbanes-Oxley Act. And there is a push toward greater international consistency in financial reporting being led by the International Accounting Standards Board (IASB). Someday, it all may be simpler, but right now it's a pretty complicated landscape.


Value investors should watch out of the corner of their eyes for financial reporting standards changes and discussions leading toward change. The financial media usually report the big ones. For a deeper look - or to see what's coming before it arrives - the SEC Web site, www. sec. gov, is a good source.

## Financial Statement Anatomy

The rest of this chapter covers the financial statements themselves and the forms in which they typically arrive. Many of you will get your statements from published annual reports or quarterly summaries, but more and more this information is found in Web portals like Yahoo! Finance.

Regardless of your source, what you'll find is usually the same. The annual report is a more complete package, containing company market information, management perspective, and certain other legal reporting requirements. So the discussion will start there, recognizing that regardless of where you get your financial statements, there's more work to do to understand them.

## The 10-K annual report

The Form 10-K annual report and its quarterly sibling, the 10-Q, form the backbone of detailed company analysis for investors and other financial statement readers.

One of the SEC's many goals is to ensure that financial information about public companies is correct, consistent, regularly reported, and readily available. So the SEC created reporting forms for an assortment of financial information: financial results, financial changes, and ownership changes.

The $10-\mathrm{K}$ is similar to a company's printed and distributed annual report. However, it goes into more detail, and most dispense with the glossy pictures and marketing material. It looks like a government document because it is one. The reports are available from the company investor relations site or the EDGAR site (http://sec.gov/edgar/searchedgar/company search.html for the company search page) and through certain other sources like The Wall Street Journal annual reports service. A 10-K goes into the following details about a company's business and financials:

Detailed business description: This includes business segments, product lines, geography, operating units, plants, property, technologies, patents, customer base and key customers, employees and employee mix, and so forth.

Company markets: And market size, market position, market growth, market share, competition, threats, and strengths.
$\checkmark$ Detailed financials: The line items are often similar to printed annual reports, but there is more history, often five to ten years' worth, deeper analysis, and more complete notes explaining certain lines in greater detail. More detailed explanations of acquisitions, pensions, and other special accounting transactions are also usually available.
$\checkmark$ Risk factors: $10-\mathrm{K}$ reports list a company's risks and how those risks may affect company performance.
$\checkmark$ Management's analysis of results, financial condition, and go-forward prospects: Again, the information is often more detailed and contains less "spin" than that found in printed reports.
$\checkmark$ Description of legal proceedings: Usually not important, unless the company is involved in major patent, asbestos litigation, or something similar.

## Dissecting the annual report

Making generalizations about the construction of an annual report isn't easy, but most, if not all, reports contain the following elements. From one company to the next, these elements won't look the same, be the same size, be in the same order, or contain the same information. But the main pieces are all present in some form.

## Highlights

The highlights section is usually a one-page graphic summary of significant financial results: sales, earnings, and a few productivity measures key to a company's industry. Four or five years of history are often included. Highlights are useful for a first glance, but there's usually more to the story.

## Letter to shareholders

The letter to shareholders presents a chipper one- or two-page summary, usually from the CEO, describing the past year and the year ahead. Although some managers are frank in describing and confronting a company's difficulties, others are not. You may see a discussion of milestones and achievements ("We opened our 2,000th store," "We maintain an in-stock level unequaled in the retail world," or "We achieved \#1 position according to XYZ Industry News") without a lot of discussion of whether they were worthwhile. The letter may include something about new customers, new technologies, and employment practices. The value investor can assess accomplishments and the overall tone and candidness of these statements, Investors look for clear

## Does (report) size matter?

Merrill Lynch did a study years ago to correlate the size of company $10-\mathrm{K}$ reports with company stock performance. What did it find? There is a strong correlation between the size of the $10-\mathrm{K}$ report, in number of pages, and poor investment performance. From March 31, 2000 to March 31, 2001, companies with small $10-\mathrm{K}$ filings ( 150 pages of text or fewer) lost 52 percent of stock value, while those with large (between 150 and 200 pages) or jumbo filings (200 pages or more)
lost 73 percent and 78 percent of stock value, respectively. Interestingly, A0L/Time Warner's filing was 1,861 pages with the merger, but wasn't included in the study. On the plus side, Adobe Systems, which, ironically, produces software used to download and print $10-\mathrm{Ks}$, weighed in with an 87-page filing and lost only 37 percent - and has been a solid performer ever since. This speaks well to the value investor's quest for simpler businesses,
language without panaceaic jargon or buzzwords, and many look for willingness to discuss bad stuff in these letters - a sign of management honesty and integrity.

## Business summary

This objectively worded section covers the business - its products; markets; competition; and factors such as seasonality, patents, and international exposure that may affect the business. That's usually followed by a summary of the management team, which is in turn followed by a fairly detailed discussion of potential risks to the business. The business summary section is one of the best ways for an investor to gain business understanding.

## Management's discussion and analysis

From there, we move into the financials themselves, which usually begin with a management discussion and analysis of the financials. The discussion covers specific financial statement components, including sales, costs, expenses, assets, liabilities, liquidity, and may cover market expansion risks.

## The statements

The financial statement section usually consumes the last half to two-thirds of an annual report. Several versions of consolidated financial data are presented.


What does "consolidated" mean? Are they leaving something out? No. Consolidated means that (1) many legal subsidiaries include foreign subsidiaries; and (2) many, many accounts are combined into a simplified reporting structure for presentation. Consolidation makes the resulting statements shorter and easier to understand.

Financials invariably include a balance sheet, income statement, and statement of cash flows. Most reports include a statement of shareholder's equity, a statement of working capital, or some other summary of changes in the financials. The main statements, covered in more detail in Chapters 7 and 8:
$\checkmark$ The balance sheet captures a company's financial position at a point in time. It shows all assets, liabilities, and owner's equity, usually in clearly defined subsections. In fact, the balance sheet is often called a statement of financial position or statement of financial condition.
$\checkmark$ The income statement captures a company's performance over an interval of time. Of interest here are the sales or revenues, cost of those sales, other expenses, and, of course, the difference between sales and costs - earnings. This statement is sometimes called the statement of operations or operating activity.
$\checkmark$ The statement of cash flows also captures company activity and performance over a time interval, but this time it's done in cash terms. As explained in Chapter 8, cash and accounting flows can be different. The difference is usually timing. Cash flows are just as the name implies cash or checks coming in, cash or checks being paid out. Cash flows are a lifeblood flow into and out of the business. Cash flows tell you a lot about company liquidity - which refers to the presence or absence of enough cash to operate, and the quality of earnings - and whether the earnings are real or a result of accounting gimmicks.

No assessment of company performance, quality, or success can be achieved without these statements and, in particular, without looking at all three statements together. Consider some examples of financial statements. Figures 6-1 through 6-3 are presented from the Simpson Manufacturing Company (a manufacturer of construction fastening products) 2006 Annual Report. Simpson is chosen as an example for the relative simplicity of the business and it's "fit" as a value stock. The Simpson statement example is referred to repeatedly in Chapters 7 through 10 and beyond.

## Common size statements

Some annual reports provide, in addition to normal financial statements, a set of common size statements. Common size statements are standard financial reports with all information presented as percentages. Thus, cash or accounts receivable are presented as a percentage of total assets, and the cost of goods sold or marketing expenses are presented as a percent of revenue. Common size statements are useful for comparing companies.

# Simpson Manufacturing Co., Inc. and Subsidiaries <br> Consolidated Statements of Operations 

(In thousands, except per share data)

|  | Years Ended December 31 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 |  | 2005 |  | 2004 |  |
| Net Sales | \$ | 863,180 | \$ | 846,256 | \$ | 689,053 |
| Cost of sales |  | 517,885 |  | 515,420 |  | 404,388 |
| Gross profit |  | 345,295 |  | 330,836 |  | 293,665 |
| Operating expenses |  |  |  |  |  |  |
| Research and development and other engineering |  | 19,254 |  | 14,573 |  | 13,029 |
| Selling |  | 72,199 |  | 64,317 |  | 58,869 |
| General and administrative |  | 91,975 |  | 100,261 |  | 90,959 |
| Loss (gain) on sale of assets |  | 457 |  | $(2,044)$ |  | (409) |
|  |  | 183,885 |  | 177,107 |  | 162,448 |
| Income from operations |  | 161,410 |  | 153,729 |  | 131,217 |
| Income (loss) in equity method investment, before tax |  | (97) |  | 284 |  | - |
| Interest income |  | 3,927 |  | 1,745 |  | 749 |
| Interest expense |  | (208) |  | (194) |  | (364) |
| Income before income taxes |  | 165,032 |  | 155,564 |  | 131,602 |
| Provision for income taxes |  | 62,370 |  | 57,170 |  | 50,094 |
| Minority interest |  | 166 |  | - |  | - |
| Net income | \$ | 102,496 | \$ | 98,394 | \$ | 81,508 |
| Net income per common share |  |  |  |  |  |  |
| Basic | \$ | 2.12 | \$ | 2.05 | \$ | 1.70 |
| Diluted | \$ | 2.10 | \$ | 2.02 | \$ | 1.67 |
| Weighted average number of shares outstanding |  |  |  |  |  |  |
| Basic |  | 48,300 |  | 48,081 |  | 48,052 |
| Diluted |  | 48,891 |  | 48,606 |  | 48,919 |


| Simpson Manufacturing Co., Inc. and Subsidiaries Consolidated Balance Sheets <br> (In thousands, except per share data) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS | December 31 |  |  |  |
|  | 2006 |  | 2005 |  |
| Current assets | \$ | 148,299 | \$ | 131,203 |
| Cash and cash equivalents |  | 95,991 |  | 101,621 |
| Trade accounts receivable, net |  | 217,608 |  | 181,492 |
| Inventories |  | 11,216 |  | 10,088 |
| Deferred income taxes |  | 6,224 |  | 10,051 |
| Other current assets |  | 479,338 |  | 434,455 |
| Total current assets |  |  |  |  |
|  |  | 197,180 |  | 166,480 |
| Property, plant and equipment, net |  | 44,337 |  | 42,681 |
| Goodwill |  | 33 |  | 244 |
| Equity method investment |  | 14,446 |  | 15,855 |
| Other noncurrent assets | \$ | $\underline{ } 735,344$ |  | $\underline{659,715}$ |
| Total assets |  |  |  |  |

## LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY

Current liabilities

| Current portion of long-term debt | $\$$ | 327 |
| :--- | ---: | ---: |
| Trade account payable | 22,909 | 2,186 |
| Accrued liabilities | 36,874 | 39,076 |
| Accrued profit sharing trust contributions | 8,616 | 7,721 |
| Accrued cash profit sharing and commissions | 7,817 | 10,229 |
| Accrued workers' compensation | 3,712 | 3,262 |
| Total current liabilities | 80,255 | 91,959 |
|  |  |  |
| Long-term debt, net of current portion | 338 | 2,928 |
| Other long-term liabilities | 1,866 | 1,362 |
| $\quad$ Total liabilities |  | 82,459 |

Commitments and contingencies (Note 9)
Minority interest in consolidated variable
interest entities -

- 5,337

Stockholders' equity
Preferred stock par value $\$ 0.01$; authorized shares, 5,000 ; issued and outstanding shares, none
Figure 6-2:
Common stock par value $\$ 0.01$; authorized
Simpson Manufacturshares, 160,000 ; issued and outstanding shared, 48,412 and 48,322 at
ing consolidated
balance sheet.

December 31, 2006 and 2005, respectively: 483
$\begin{array}{lrr}\text { Additional paid-in capital } & \text { 94,398 }\end{array}$
$\begin{array}{lrr}\text { Retained earnings } & 526,362 & 456,474 \\ \text { Accumulated other comprehensive income } & 11,494 & 6,774\end{array}$ Total stockholders' equity

Total liabilities and stockholders' equity


659,715

## Simpson Manufacturing Co., Inc. and Subsidiaries

Consolidated Statements of Cash Flows

| Simpson Manufacturing Co., Inc. and Subsidiaries Consolidated Statements of Cash Flows (In thousands) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Years Ended December 31 |  |  |  |  |  |
|  | 2006 |  | 2005 |  | 2004 |  |
| Cash flows from operating activities |  |  |  |  |  |  |
| Net income | \$ | 102,496 | \$ | 98,394 | \$ | 81,508 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |  |  |
| Loss (gain) on sale of capital assets |  | 457 |  | $(2,044)$ |  | (409) |
| Deprecation and amortization |  | 24,536 |  | 22,370 |  | 18,449 |
| Loss on sale of available-for-sale investments |  | - |  | 2 |  | - |
| Deferred income taxes |  | $(2,141)$ |  | $(4,589)$ |  | (355) |
| Noncash compensation related to stock plans |  | 7,765 |  | 6,385 |  | 5,531 |
| Loss (income) in equity method investment |  | 97 |  | (284) |  | - |
| Tax benefit of options exercised |  | - |  | 3,843 |  | 2,886 |
| Excess tax benefit of options exercised |  | $(3,056)$ |  | - |  | - |
| Provision for obsolete inventory |  | 81 |  | 1,113 |  | 2,782 |
| Provision for (recovery of) doubtful accounts |  | 232 |  | (134) |  | 455 |
| Minority interest |  | 166 |  | - |  | - |
| Changes in operating assets and liabilities, net of effects of acquisitions: |  |  |  |  |  |  |
| Trade accounts receivable |  | 7,109 |  | $(13,260)$ |  | $(20,296)$ |
| Inventories |  | $(34,139)$ |  | 8,409 |  | $(83,093)$ |
| Other current assets |  | (654) |  | $(4,714)$ |  | (506) |
| Other noncurrent assets |  | (35) |  | (192) |  | 9 |
| Trade accounts payable |  | 8,053) |  | $(3,025)$ |  | 6,939 |
| Accrued liabilities |  | 577 |  | 11,403 |  | 9,447 |
| Accrued profit sharing trust contribution |  | 868 |  | 701 |  | 694 |
| Accrued cash profit sharing and commissions |  | $(2,417)$ |  | 2,025 |  | 742 |
| Other long-term liabilities |  | 711 |  | 1,249 |  | 918 |
| Accrued workers' compensation |  | 450 |  | 502 |  | 337 |
| Income taxes payable |  | 4,017 |  | 2,448 |  | $(3,484)$ |
| Net cash provided by operating activities |  | 99,067 |  | 130,602 |  | 22,820 |
| Cash flows from investing activities |  |  |  |  |  |  |
| Capital expenditures |  | $(51,537)$ |  | $(42,602)$ |  | $(45,966)$ |
| Acquisition of minority interest |  | $(9,135)$ |  | - |  | - |
| Distributions from equity investment |  | 114, |  | - |  | - |
| Proceeds from sale of capital assets |  | 86 |  | 4,068 |  | 630 |
| Asset acquisitions, net of cash acquired |  | - |  | - |  | $(32,525)$ |
| Purchases of available-for-sale investments |  | - |  | - ${ }^{-}$ |  | $(41,451)$ |
| Maturities of available-for-sale investments |  | - |  | 12,100 |  | 8,600 |
| Sale of available-for-sale investments |  | - |  | 4,700 |  | 60,495 |
| Net cash used in investing activities |  | $(60,472)$ |  | (21,734) |  | (50,217) |
| Cash flows from financing activities |  |  |  |  |  |  |
| Line of credit borrowings |  | 727 |  | 699 |  | 2,047 |
| Repayment of debt and line of credit borrowings |  | (1.599) |  | $(2,006)$ |  | $(5,595)$ |
| Repurchase of common stock |  | $(17,166)$ |  | - |  | $(31,274)$ |
| Issuance of Company's common stock |  | 8,947 |  | 4,095 |  | 4,211 |
| Excess tax benefit of options exercised |  | 3,056 |  | - |  | - |
| Dividends paid |  | $(15,444)$ |  | $(9,606)$ |  | $(7,194)$ |
| Net cash used in financing activities |  | $(21,479)$ |  | $(6,818)$ |  | $(37,805)$ |
| Effect of exchange rate changes on cash |  | (20) |  | $(1,764)$ |  | 983 |
| Net increase (decrease) in cash and cash equivalent |  | 17,096 |  | 100,286 |  | $(64,219)$ |
| Cash and cash equivalents at beginning of period |  | 131,203 |  | 30,917 |  | 95,136 |
| Cash and cash equivalents at end of period | \$ | 148,099 | \$ | 131,203 | \$ | 30,917 |
| Supplemental Disclosure of Cash Flow Information |  |  |  |  |  |  |
| Cash paid during the year for |  |  |  |  |  |  |
| Interest \$ | \$ | 91 | \$ | 195 | \$ | 374 |
| Income taxes |  | 59,374 |  | 55,511 |  | 50,666 |
| Noncash activity during the year for |  |  |  |  |  |  |
| Noncash capital expenditures | \$ | 507 | \$ | 954 | \$ | 463 |
| Common stock issued for acquisition |  | - |  | - |  | 5,000 |
| Common stock issued for compensation |  | 229 |  | 714 |  | - |
| Dividends declared but not paid |  | 3,870 |  | 3,867 |  | 2,399 |
| Consolidation of assets and liabilities of variable interest entities (Note 15) |  | $(5,337)$ |  | 5,337 |  |  |

## Going long(er)

The Simpson statements only show three years' worth of operating performance on the income and cash flow statements. That gives you a pretty good synopsis of company performance. But value investors like to look at trends, and many trends have more significance if looked at over a longer period of time. So many financial statements, to provide this detail without consuming
tons of paper, will provide a highly summarized snapshot of key data over a longer period. Simpson offers a five-year summary. Some companies offer as much as ten years, and many key figures are available on Value Line or through other services over a much longer horizon.

## Notes

Ironically, the notes part of an annual report may take more room and contain more detail than the financial statements themselves. Notes can give a lot of important detail or "color" to support the statements.

Notes not only show more detail, but also show the accounting practice a company uses in preparing a statement. A company's description of depreciation methods, option accounting, pension funding, and the like can make big difference in interpreting the statements. Notes also disclose one-time situations such as acquisitions, discontinued businesses, and asset write-downs in greater detail, or changes in accounting methods.

## Auditor's review

The auditor's review is normally a one-page boilerplate somewhere toward the back of the annual report. This element looks pretty much the same in every annual report (because the AICPA specifies the format) and also reads much the same.

The purpose of the auditor's review is to provide concrete evidence of review and acceptance of a company's accounting and financial practices. Financial procedures are audited (sampled) for correct handling of material and money flow. Financial reporting practices are reviewed to make sure that information is being reasonably captured. What is important is identifying exceptions. The standard auditor's review is three paragraphs. If the words "qualified" or "adverse" creep into the third paragraph, or if there's a fourth paragraph, watch out.

## What the Value Investor Looks For

Successful value investors must be able to pull the relevant information out of financial reports and statements. Chapters 7 and 8 explore the statements in more detail, while Chapter 9 covers statement quality and raises some of the tricks and pitfalls in reading statements. Chapter 10 starts the process of evaluating a company using financial data, which continues through most of the rest of the book. At a high level, value investors are looking for five main things in or from financial statements:

Intrinsic valuation: Value investors use financial statements as a base to assess a firm's intrinsic value. Intrinsic value is a composite sketch of current net asset value, net worth, and future earnings and growth potential. More detail comes in Chapter 12.

Quality: Investor need to assess the quality of the business and the story around it. Financial statements can provide important clues through their construction and use of accounting principles. More in Chapter 9.

Consistency: Financial statements can provide an important record of consistency, and the more history, the better.

## The Enron effect

The 2000-2002 dot-com bust and debacles of giants like Enron, WorldCom, Adelphia Communications, and Owest led to a large public and Congressional outcry for more control and regulation of financial reporting. And it went beyond the usual public sector and consumer complaints - the financial industry itself was rapidly losing credibility and was also in the fray calling for change. So change happened.
The biggest change was the Sarbanes-Oxley Act, or "SOX," of 2002, which mandated a much tighter standard of overall reporting and governance around that reporting with greater levels of responsibility for reporting managers. Other significant actions included the 2004 FASB

Statement 123, requiring expensing of options and "share-based payment" for employees, effectively ending this often-excessive off-statement expensing activity. Another was FASB Statement 132, clearing up pension accounting and reporting.

There are more of these adjustments than can possibly be covered here; suffice it to say that the overall quality of financial statements has improved dramatically. There are still plenty of ways that management can use statement "flexibility" to influence reporting, but SOX and public pressure has made "creative accounting" more the exception than the rule.
$\checkmark$ Trends: History also shows important trends. Trends and changes in long-term trends imply vastly different business - and investing results. Financial statements help you understand trends and undercurrents in profitability, asset utilization, and other factors that may be leading indicators of new trends.
$\checkmark$ Intangibles: Value investors can't and don't thrive on numbers alone. Market position, product quality, customer base, competitive position, public image, management strength, and similar attributes all function to protect or enhance future business results. As leading indicators, these factors can't be ignored. Financial statements and the reports companies construct around them, along with press releases and other communications, provide a body of information vital to the businessvaluation process.

## Chapter 7

## Statements of Fact Part 2: The Balance Sheet

## In This Chapter

$>$ Reading a balance sheet

- Understanding assets, liabilities, and owners' equity
$>$ Using the balance sheet as an investment tool

$T$he balance sheet is fundamental to all managers, business analysts, investors, and anyone else who looks at a company by the numbers. It's the first topic covered by most books about financial analysis. This book isn't designed to turn you into an accountant or financial analyst, only to make you familiar with basic concepts and how to use them to achieve investing objectives.

As Benjamin Graham and David Dodd put it in their master work, Security Analysis: "On numerous occasions . . . we have expressed our conviction that the balance sheet deserves more attention than Wall Street has been willing to accord it for many years." That bit of wisdom, first espoused in 1934, sets the tone for this chapter.

## A Question of Balance

As you probably guessed, there is a "balance" in the balance sheet. Something must equal something else, or it doesn't balance. There must be an equation, the sum of one side of which equals the other.

Yes, a core financial equation (a simple one: no Greek letters, symbols, or exponents) forms the heart of the balance sheet, indeed the business enterprise itself. We'll begin by going through the equation and discussing the nature and form of the balance sheet itself.

## Balance sheet components

The entire practice of business accounting is based on the relationship between business resources and their sources. A business resource is an asset, generally defined as any resource that can be put to use by the business to achieve business results: revenue, profit, brand recognition, and so on. These assets are acquired and paid for either by borrowing or by a contribution of funds from the business owners.

So a generalized equation shows this relationship:
Assets = Liabilities + Owners' Equity
Briefly:
Assets are the resources available to the business to produce and market its product or service, including cash, investments, receivables owed by customers, inventory, buildings, land, equipment, and an assortment of "intangible" assets necessary to carry on the business. Assets are what a business owns.
$\checkmark$ Liabilities represent the portion of assets financed by others or borrowed, including short- and long-term borrowings, amounts owed to suppliers and others. Liabilities are what a business owes.
$\checkmark$ Owners' equity is the portion contributed by the business owners. There are many names for this: Shareholders' or stockholders' equity, net worth, owner's capital, and book value are among them. Included in owners' equity are not only funds contributed directly from shareholders but also past profits retained in the business known as retained earnings.

It's important to reinforce the idea that a balance sheet must balance. That is, for every asset dollar, there must be contributed dollars produced by borrowing (increased liabilities) or additional funding by the owners (owners' equity) to match.

In this chapter, each component of this equation is examined in greater detail, with an eye for what's important the value investor.

## Taking time into account

A balance sheet is a listing of assets against the liabilities and equity that fund those assets, taken at a specific point, or snapshot, in time. For investment and legal reporting purposes, these snapshots are generally taken at the end of each fiscal quarter and at fiscal year-end.

A balance sheet is necessarily a consolidation of a vast number of accounts maintained by the business. That's a good thing. Investors don't want to see the myriad separate accounts that companies set up for each type of physical asset or inventory for each operating subsidiary in each country. Balance sheets generally fit on one page.

## Making sense of the balance sheet

The balance sheet can be a powerful indicator of business health. It is a static indicator. That is, it doesn't tell much about the future of the business and particularly about future income, but rather more about where the company has been and how well it did getting to where it is now.

On a balance sheet, value investors and business analysts look for the following:
$\checkmark$ The composition of assets, liabilities, and owners' equity (lots of inventory and little cash can be a bad sign)
$\checkmark$ Trends (increasing debt, decreasing owner's equity - also bad)
$\checkmark$ Quality (do stated values reflect actual values?)
Each of these examinations is done with an eye toward what the figure probably should be for a company in that line of business. A company like Starbucks, with frequent small cash sales, shouldn't have a large accounts receivable balance. A retailer should have sizeable inventories, but they shouldn't be out of line for the industry or category. A semiconductor manufacturer has a large capital equipment base, but should depreciate it aggressively to account for technology change.

To determine whether balance sheet numbers are in line, most analysts apply specifically defined ratios to the numbers. Ratios serve to draw comparisons among companies and their industry. By doing so, they show whether performance is better or worse than industry peers. We look at the balance sheet itself in this chapter. Because many ratios involve items found outside the balance sheet, mostly on the income statement, the discussion of ratio analysis is deferred to Chapter 10.

## A Swift Kick in the Asset

An asset is anything a company uses to conduct its business toward producing a profit. From an accounting standpoint, an asset must
$\checkmark$ Have value toward producing a return for the business.
$\checkmark$ Be in the company's control. (A leased airplane is still an asset even if it's not legally "owned" by the company.)
$\checkmark$ Be recordable and have value. (Employees don't show up as a balance sheet asset, though they're frequently referred to as assets by their CEOs.)

Using Simpson Manufacturing as an example, here's a short walk through the asset portion of a balance sheet (see Figure 7-1).

Simpson reports, at the end of its fiscal year 2006 (ending December 31, 2006), a total of $\$ 735.3$ million in assets.

As one may expect for a manufacturer, there are large asset commitments in inventory ( $\$ 217.6$ million) and in property and equipment ( $\$ 197.2$ million).

A closer look reveals something called "current assets," totaling five individual items at $\$ 479.3$ million. The way this figure is broken down into components on the balance sheet is typical.

Most companies classify assets as current or noncurrent. Current assets, as the name implies, are short term in nature, actively managed, and directly tied to a current level of business. Noncurrent assets include longer-term "fixed" assets and a catchall of other types of assets not always used in day-to-day operations.

## Current assets

Current assets are items generally held for a year or a business cycle. (If you're building a space shuttle, the business cycle, or completion of a deliverable product, is longer than a year.)

Here's a good way to think of current assets: They (especially cash assets) are the lifeblood of the business, while noncurrent assets are the body through which they circulate. The lifeblood flows to and from customers, to and from suppliers, and around to the different locations in the business operation to produce the greatest possible business and customer benefit. Current assets are managed by the business pretty much on a daily basis. See Figure 7-1.

Current assets normally include the following:
$\checkmark$ Cash and cash equivalents

- Accounts receivable
$\checkmark$ Inventory
Deferred taxes and other temporary asset items


## Balance Sheet

| View: Annual Data $\mid$ Quarterly Data |  | All numbers in thousands |  |
| :--- | :--- | :--- | :--- | :--- |
| PERIOD ENDING | 31-Dec-06 | 31-Dec-05 | 31-Dec-04 |
| Assets |  |  |  |

## Current Assets

| $\quad$ Cash and Cash equivalents | 148,299 | 131,203 | 30,916 |
| :--- | ---: | ---: | ---: |
| Short Term Investments | - | - | 17,032 |
| Net Receivables | 107,207 | 111,709 | 98,616 |
| Inventory | 217,608 | 181,492 | 192,879 |
| Other Current Assets | 6,224 | 10,051 | 7,667 |
| Total Current Assets | $\mathbf{4 7 9 , 3 3 8}$ | $\mathbf{4 3 4 , 4 5 5}$ | $\mathbf{3 4 7 , 1 1 1}$ |
| Long Term Investments | 33 | 244 | - |
| Property Plant Equipment | 197,180 | 166,480 | 137,609 |
| Goodwill | 44,337 | 42,681 | 44,379 |
| Intangible Assets | 8,736 | - | - |
| Accumulated Amortization | - | - | - |
| Other Assets | 5,710 | 15,855 | 16,038 |
| Deferred Long Term Asset Charges | - | - | - |
| Total Assets | $\mathbf{7 3 5 , 3 0 0 0}$ | $\mathbf{6 5 9 , 7 1 5}$ | $\mathbf{5 4 5 , 1 3 7}$ |

## Liabilities

Current Liabilities

| Accounts Payable | 79,928 | 89,773 | 77,821 |
| :--- | ---: | ---: | ---: |
| Short/Current Long Term Debt | 327 | 2,186 | 579 |
| Other Current Liabilities | - | - | - |
| ve Goodwill | - | - | - |
| abilities | $\mathbf{8 2 , 4 5 9}$ | $\mathbf{1 0 1 , 5 8 6}$ | $\mathbf{8 2 , 2 1 2}$ |

## Stockholders' Equity

Misc Stocks Options Warrants
Redeemable Preferred Stock
Figure 7-1:

| Preferred Stock | - | - | - |
| :--- | ---: | ---: | ---: |
| Common Stock | 484 | 483 | 479 |
| Retained Earnings | 526,362 | 456,474 | 369,154 |
| Treasury Stock | - | - | - |
| Capital Surplus | 114,535 | 94,398 | 79,877 |
| Other Stockholder Equity | 11,494 | 6,774 | 13,415 |
| Total Stockholder Equity | $\mathbf{6 5 2 , 8 7 5}$ | $\mathbf{5 5 8 , 1 2 9}$ | $\mathbf{4 6 2 , 9 2 5}$ |
| Net Tangible Assets | $\mathbf{\$ 5 9 9 , 8 0 2}$ | $\mathbf{\$ 5 1 5 , 4 4 8}$ | $\mathbf{\$ 4 1 8 , 5 4 6}$ |

We explore each element in more detail in the following sections. From here on, refer to Figure 7-1, the condensed version of Simpson's balance sheet obtained from Yahoo! Finance. It is typical of what is shown in most financial portals, and is based on the same set of numbers shown from the Simpson annual report in Figure 6-1.

## Cash and cash equivalents

For most businesses, cash is the best asset it can have. There's no question about its value - cash is cash - and it's the most useful and flexible asset a business can have. Cash equivalents, which are short-term marketable securities with little to no price risk, can be converted to cash at a moment's notice and are, for balance sheet purposes, essentially cash.

Value investors like cash. Cash is security and forms the strongest part of the "safety net" that value investors seek. Value investors question a cash balance only if it appears excessive against the needs of the business. If Simpson had a billion dollars in cash - more than one year of sales - you may ask why. Could the company not put that cash to work in an investment or acquisition that may return more than the 4 or 5 percent it may get in a bank? And why isn't it being returned to shareholders? Most companies don't retain that much cash, but occasionally it becomes a value investing red flag.


It's important to recognize the total picture when companies report high cash balances. Many companies have large cash or cash equivalent balances for a while immediately following an initial public offering (IPO). For example, at the end of the year 1999, Webvan Group had $\$ 500$ million, well over one year's sales. Why? Because they just went public. They just received a huge contribution of owners' equity in the form of cash. That's what an IPO is all about. That cash is there to be depleted (hence the term "burn rate"), hopefully to produce a favorable return. But that scenario, as you know, comes with a lot of risk. Cash is hardly a safety net in this kind of company; you need to look at cash differently.


Cash on the balance sheet is great to have, and for most businesses beyond the IPO situation a cash balance reflects profits received at some point in the course of business. But for some companies - like banks and other financial services companies - cash is more like inventory. Banks take in cash and lend it out to generate profits. A cash snapshot at a given point in time is less about profits and more about inventory levels carried, and thus isn't as clear an indicator of business success or flexibility.

## Accounts receivable

Accounts receivable represent funds that are owed to the business, presumably for products delivered or services performed. As individuals, everyone likes to be owed money - until we're owed too much money. The same principle applies to businesses.

Accounts receivable are driven by the type of business that a company operates in. Obviously a small-sale retailer such as Starbucks operates mostly on cash - you don't give them an IOU for that double-cream latte, do you? Even when you charge something, the credit card company pays almost immediately, leaving perhaps a slight residual in accounts receivable. Most companies that sell directly to consumers have little to no accounts receivable.

Contrast this to companies that sell to other companies (business-to-business, or "b-to-b"), or to distributors or retailers in the supply food chain. Most of this business is done on account, meaning that goods or services are delivered and invoices are then cut and sent. The billing process creates an account receivable, which goes away only when the customer pays the bill. So suppliers to other businesses or through distribution and sales channels often have significant accounts receivable.


How much of a company's asset base should be made up of accounts receivable? U.S. government data suggest that cash businesses such as Starbucks or grocery stores have 10 percent or less of their asset base in accounts receivable. Traditional retailers and other "b-to-c" (business-to-consumer) companies have 20 percent to 30 percent or more in receivables if they provide credit through their own credit card. Equipment manufacturers and other b-to-b concerns sometimes carry receivables of 50 percent or more of total assets.

For most "b-to-b" industries, accounts receivable are a part of doing business and, in a sense, a cost of doing business (cash is forgone to give the customer time to pay). The question is how much commitment to accounts receivable is necessary to support the business? You should be aware of situations in which companies aren't collecting on their bills or are using accounts receivable to create credit incentives for otherwise questionable customers to buy their product.

To assign value to accounts receivable, pay attention to the following:
$\checkmark$ The size of accounts receivable relative to sales and other assets: Is a company extending itself too much to sustain or grow the business? Ratios (covered in Chapter 10) help measure this, and industry comparisons and common sense dictate the answer.
$\checkmark$ Trend: Is the company continuously owed more and more, with potentially greater and greater exposure to nonpayment? Look at historical accounts receivable and compare them to sales.
$\checkmark$ Quality of accounts receivable: Typically, most companies collect on more than 95 percent of their accounts receivable balances, and thus they're almost as good as cash. But if accounts receivable balances grow and particularly if large reserves show up on the income statement ("allowance for doubtful accounts" or similar), this is a red flare not to be missed. Unfortunately, most investors don't see information on individual creditors nor can they assess their credit-worthiness.

Some financial statements show "notes receivable" as a separate balance sheet item under current assets. Notes receivable are essentially a special form of accounts receivable - a promissory note for a significant sum extended to a specific firm for a specific reason. For the most part, these should be treated like normal accounts receivable, but it may be worth a quick glance at the note holder and the terms of the note. For example, a note granted by Boeing to a weak or bankrupt airline may be cause for concern.

## Inventory

Inventory can be a critical, make-or-break asset and factor in company valuation. Companies live and die by their ability to effectively manage inventory.

Inventory is all valued material procured by a business and resold, with or without value add, to a customer. Retail inventory consists of goods bought, warehoused, and sold through stores. Manufacturing inventory consists of raw material, work in process, and finished goods inventory awaiting shipment.

For most companies, the key to successfully managing inventory is to match it as closely as possible to sales. That is, the faster that procured inventory can be processed and sold, the better. More sales are generated per dollar tied up in inventory. Dollars tied up in inventory cost money because they could be invested elsewhere in the business.

## Measuring inventory

Measuring the size of inventory assets is often done by measuring turnover. Turnover is simply annual sales divided by the dollar amount of the asset on the books. If sales are $\$ 500$ million a year and inventory on the books is $\$ 100$ million, inventory turnover is 5 times a year. Another way to look at it: The average item of inventory is on the books for about 2.4 months ( $12 \div 5$ ). Some would represent that figure as "months' sales in inventory," or "months of supply." The greater the turnover, the more efficient the utilization of that asset. Turnover ratios naturally vary by industry. For example, Starbucks turns over inventory much faster than Boeing.

Moreover, inventory carries with it a significant risk of obsolescence. Changes in demand patterns, technology, or the nature of the product itself can cause valued inventory to rapidly lose value. The most extreme example of obsolescence risk is newspapers, where an inventory of today's latest edition becomes almost 100 percent worthless at the stroke of midnight. But almost any other type of inventory carries obsolescence risk, as few inventories are worth 100 percent of their purchase price or anywhere near it.

Incidentally, accounts receivable are another asset that can, and often are, measured by turnover. You may choose to measure it as "days' sales in receivables." A company with a normal 30-day billing cycle that has 45 days' sales in receivables has a problem.

## Valuing inventory

Valuing an inventory asset can be challenging. Companies don't provide much information about their inventories. About as far as you'll normally get is a breakdown of how much inventory is in "finished goods" and "purchased parts and fabricated assemblies," and even that is buried deep in the 10-K (the $10-\mathrm{K}$ is discussed in Chapter 6). The value investor knows little about what those inventories really are or about their real value. A warehouse of outdated Pentium III computer processors probably carries a book inventory value, but they aren't worth much to the company or anyone else.

Inventory valuation is further affected by accounting methods employed by a firm. The method affects both balance sheet carrying value and cost recognition on the income statement. Mainly the choices are "first in, first out" (FIFO) and "last in, first out" (LIFO), meaning that a company assigns either the earliest stocked goods or the latest stocked goods to a sale. In a normal environment in which costs increase over time, LIFO will result in a more conservative view of earnings and inventory balances - the more expensive items are assumed to be consumed first. (This approach may not work in technology companies, where more recently purchased components are actually cheaper - LIFO may be less conservative!)

The FIFO versus LIFO decision is documented in annual report notes, usually Note 1, significant accounting policies. Under normal circumstances, you probably don't need to be too concerned about this, unless industry price instability or inflation becomes a big factor. Also watch for accounting policy changes, which can be used to hide or inflate performance.

Further refining the reported value of inventory is the decision to carry at the lower of cost or market. Cost is as implied - what the material cost in the first place. LIFO or FIFO affects the cost carried. But the most conservative inventory valuation practice is to carry at market, which is what the company thinks the market value of its inventory is on the resale market. Normally this comes closer to a true valuation for the inventory, but it depends on the company's assessment and the recency of that assessment. Most companies carry at the lower of cost or market, but again, look for valuation practice in the notes section.

Investors should keep an eye on inventory balances for economic value and efficiency of use. Look at the size of the asset in an absolute sense and relative to the size and sales of the business. Look for trends, favorable and unfavorable, in inventory balances and ratios. Look at competitors and industry standards. Where possible, look at inventory quality and past track record for inventory obsolescence and resulting write-offs. And then be conservative. It often makes sense to assign a value of 50 percent to 75 percent, sometimes less, to inventory values appearing on a balance sheet.

## Dreaded diamonds

Or, "When diamonds (hopefully) aren't forever"
Business and inventory cycles can wreak havoc on inventory and inventory valuations. Some classic 2000-2002 headlines came from this phenomenon, such as Cisco Systems' $\$ 2.5$ billion dollar write-off of raw materials in the quarter ending April 2001. In late 2000, as demand swelled for its products, and deliveries were frequently missed, the company decided to grab the bull by the horns and stock up on components so as not to miss future sales and lose customers to competitors. The business cycle turned, and on top of that, many of the orders on the books were probably superfluous anyway, with customers rushing to get their orders in to make sure that they got their product in a tight supply environment. The business turn plus cancellation of some of the order backlog reduced the need for raw materials, and combined with technology shifts, the stockpile rapidly lost
value. Inventory managers call this cycle the "dreaded diamond" - exaggerated demand on the up portion of the business cycle causes overordering and overstocking, and then once the demand slows on the down cycle, the downturn is further exacerbated by the cancellation of overzealous orders. Technological obsolescence makes technology companies particularly vulnerable to inventory cycles. You must recognize business cycles and watch for inventories growing out of proportion to sales. Many value investors avoid tech altogether because of inconsistency and the inability to predict the future. However, it should be added that companies have generally gotten better at managing inventories and anticipating these cycles, and less of this is seen today. That said, as 2008 unfolds, homebuilders are seeing some of the same kinds of "dreaded diamonds" in their industry.

As in most other aspects of value investing, it is important to know something about the industry when assigning value to balance sheet assets. Suppose you're an investor in bookseller Borders Group. You may be alarmed by the $\$ 1.4$ billion in merchandise inventories carried on the Borders Group balance sheet, a figure that's more than half of the total assets with fewer than three turns per year ( $\$ 4.1$ billion in sales). But a closer look at the book industry reveals a special case: Booksellers are entitled to return nearly all inventory to publishers for 100 percent credit! Booksellers need to stock even the slow movers to get people into the stores, so publishers realize this and have created this policy to get their inventory onto the shelves. So although the Borders book inventory is large and requires significant cash tie-up, it carries with it far less risk of obsolescence and future write-offs than many of its retailing brethren. Know thy business and know thy industry.

## Deferred taxes and other current assets

Most balance sheets contain small amounts for other items carried on the books. "Deferred taxes" is an item that appears frequently and results from timing differences between financial reporting and tax reporting requirements.

It is essentially estimated taxes paid before a tax liability is actually determined. For the most part, you shouldn't worry about these items; seldom do they comprise more than 5 percent of stated assets.

## Bolted to the floor: Fixed assets

The balance sheet entry called "property, plant, and equipment" (PP\&E) is pretty clear from the name. It refers to the fixed assets - land, buildings, machinery, fixtures, office technology, and similar items owned by the firm for productive use. Depending on the industry, this item may have a different name. Retail stores, for example, don't have "plants," but may have distribution centers.

Valuation of PP\&E can vary widely. The key to understanding PP\&E value is to understand depreciation. Depreciation is an amount subtracted each year by accountants from an asset purchase price for normal wear and tear and technological obsolescence. Depreciation methods are discussed further under the next heading, but for now it's important to note that depreciation can affect underlying asset values substantially. Further changing the picture can be a company's decision to value at lower of cost or market value. As for other accounts, the accounting method is disclosed in the statements under the notes entry.

The value of property, plant, and equipment, of course, can vary a lot by what it is, where it is, and how it's used. These in turn vary by industry and things specific to the company itself, like its location. A Bessemer converter probably has a smaller market value compared to its purchase price than a modern semiconductor wafer fabrication machine. An old building in downtown Syracuse probably has less value than a new building in Santa Clara, California.


Although most PP\&E items are subject to depreciation charges, land is not. Is the value of land overstated on the books? Hardly. Land is normally carried at purchase or acquisition value. This affords a unique value investing opportunity. Land purchased in the 1940s or 1950s is often worth much more today than back then, but it is seldom reflected in the books. Consider railroads, with vast ownership of downtown lands and land grants in the West, mostly from over 100 years ago. If one realized the value of these holdings (less the cost of an occasional environmental cleanup), the value of these investments may increase enormously. (Is this why Warren Buffett has been buying railroads recently?) There may be some real hidden gems lurking below the balance sheets of railroad, timber, mining, and certain old-line industrial corporations. But realize that land isn't always a hidden gem - the homebuilding industry has suffered from too much of it acquired at excessive "boom" prices.

Understanding the nature of a corporation's PP\&E and its depreciation methods will help in assessing the value of this account. Generally, value investors assign very conservative values to PP\&E (unless a lot of land is involved): 50 percent or less.

## Appreciating depreciation

Depreciation is a methodic reduction of PP\&E asset value with assignment of a corresponding dollar amount to a period expense - an expense recorded for a reporting period. As the name implies, depreciation represents an accounting treatment of normal wear and obsolescence on productive assets. When companies buy a capital asset, usually a purchase greater than $\$ 1,000$, they don't record the entire cost as an expense in the year purchased. Instead, they gradually recognize the cost as expense in subsequent years through depreciation. At the end of the depreciation cycle (in theory at least), it is time to make another capital outlay, replace the asset, and start the cycle all over again.

There are a variety of accepted methods for assigning depreciation dollars. A detailed discussion of depreciation and depreciation methods is CPA stuff well beyond the scope of this book. You may find it useful to recognize two major methods for assigning depreciation dollars: straight-line and accelerated depreciation.

Straight-line depreciation is just as the name implies: Each year an equal amount of asset value is expensed until the asset value reaches zero.

Accelerated depreciation methods allow the accountant to expense proportionately more in the early years of asset life. Accelerated methods include "sum of the years' digits" and "double declining balance." The details of these methods can be found in most accounting books and aren't important here, only the effects.

## Effect of depreciation on income and asset quality

Acceleration and the corresponding increase in expense - reduction in reported profit - serve the purpose of reducing taxes in early years. With the time value of money (see Chapter 4), that's a good thing. Accelerated depreciation also results in more conservative PP\&E asset valuations on the books. It also may better reflect reality - because of obsolescence, that semiconductor fab machine, like your new car in the driveway, probably loses relatively more market value in the first few years.

## What you should consider

The choice of depreciation methods is important. Accelerated depreciation results in the most conservative PP\&E asset valuations. It also results in the most conservative view of earnings and allows more room for future net earnings growth, because you can assume that a greater portion of depreciation is behind you.

But some companies may deliberately prop up current earnings by employing straight-line methods. Watch for companies changing over to straight-line from accelerated methods. Depreciation methods are disclosed in the notes section of the statements.


Depreciation is an accounting - not a cash - expense. No check is cut for depreciation. Instead, the check is cut when the asset is purchased. Depreciation is the leading difference between stated earnings and cash flows and can mean the difference between survival and failure for a company recording net income losses. Cash flow, unburdened by depreciation, may still be positive. But look out below. Cash consumed to keep a losing business afloat may not be available the next time a key piece of equipment needs to be replaced. Reporting methods that downplay depreciation or ignore it altogether, such as "pro forma" or "EBITDA" reporting, indicate trouble. For more on this issue, see Chapter 9.

## Investments: Companies are investors, too

Besides more liquid marketable securities, many companies commit surplus cash to more substantial long-term investments. These investments can serve many purposes: to achieve returns as any other investor would, to participate in the growth of a related or unrelated industry, or to eventually obtain control of the company. Favorable tax treatment of dividends and gains makes investing in other companies still more attractive, as exemplified in extremis by Berkshire Hathaway (see Chapter 3).


There are a lot of good reasons for companies to invest in other companies. Accepting investments as payment for goods and services rendered is probably not one of them. This practice became rather fashionable in the Internet boom, as companies freely paid for products and services bought from other companies with their shares. When their shares became almost worthless, well, you know the rest of the story. Watch also for technology companies making investments in startups as a way of fostering business or directing purchases their way.

There are many ways to value investments, boiling down basically to historical cost or market valuation, sometimes referred to as "mark-to-market" valuation.

Market valuation is obviously better. Although investment value is disclosed in the 10-K (discussed in Chapter 6), you need to read carefully to find a statement such as, ". . . as of $\mathrm{xx} / \mathrm{xx} / \mathrm{xx}$ these securities were recorded at an estimated fair value of $\$ 328 \mathrm{M}$ with a cost basis of $\$ 176 \mathrm{M}$. . . gross unrealized gains were $\$ 216 \mathrm{M}$ and gross unrealized losses were $\$ 64 \mathrm{M} .$. . ." Such a statement gives you a fair idea that the company is ahead on its investments. Watch out for declining fair values and particularly for large gross unrealized losses - future write-offs and asset value impairment loom large.

Gauge the size of investments on the balance sheet, look for detail, and understand management's intent in making the investments.

## Soft assets

Asset valuation gets really interesting for the value investor when the discussion turns to intangibles, also sometimes referred to as "soft" assets. Intangibles are assets that don't have a physical presence but are critical in acquiring and maintaining sales and producing a competitive edge. Intangibles include patents, copyrights, franchises, brand names, and trademarks. Also included is the all-encompassing goodwill often acquired by acquiring (and sometimes overpaying for) other companies.

Placing a financial value on these ethereal marketing assets is difficult, but accountants must and do. If there is an historical cost, accountants may carry the intangible at that cost. This is often the case with "goodwill" from company acquisitions.

## Valuing intangibles

The key to assessing intangible assets is to understand (1) their carrying value and (2) their composition. Most important is to understand the source of goodwill - from acquisitions, from patents, or what?


Before 2001, companies were required to amortize goodwill from acquisitions, but that changed in the middle of that year. Companies are no longer required to amortize it, but to review it for "impairment" - loss of value each year (FASB No. 142). Unfortunately, it's hard as an investor to determine whether you agree with a company's decision on impairment, which takes you back to knowing where the goodwill came from in the first place. You may have to dig through "Notes" in the annual or 10-K report to find out.

Intangibles are subject to a great deal of discretion in their accounting, and their sources and form can be numerous and highly variable from one company to the next. Cast a skeptical eye on large goodwill accounts in particular.


Companies with aggressive acquisition strategies can be a value investor's nightmare, particularly where large amounts of goodwill and other intangibles are involved. Consider telecommunications flameout Lucent Technologies, which reported acquiring 10 major companies and 11 more small ones in the years 1998 through 2000. In the year 2000 alone, acquired intangibles reflected on the balance sheet went from $\$ 960$ million to $\$ 9.945$ billion, a tenfold increase. Add to that a major divestiture (Avaya) and a host of patents and other intangibles from the former Bell Labs, and you have a valuation nightmare. Cisco Systems reported a similar tenfold increase in acquisition goodwill to over $\$ 4$ billion during that period. The best advice is to stick to simplicity.

## Intangibles and investing

The classical school of value investing suggested deducting intangibles from company valuation altogether. In Ben Graham's day (see Chapter 3), intangibles were subtracted directly from book value. They were considered fluff, and a conservative valuation would remove them completely. In many cases where a company simply overpays to acquire another company, this is still true. But with the advent of modern technology and marketing, the ideas of intellectual capital and brand equity are part of a company's value and cannot simply be ignored.

In fact, for some companies, these intangibles may represent their greatest value. What is the value of the Coca-Cola Company without the Coke recipe and brand name? Or the value of Microsoft without its lock on PC operating systems? Such brands and locks often ultimately produce the best profit streams and best value.

## An asset assimilation

By way of recap, here are a few more tidbits and resources.

## Four score and a million bucks ago

The single statement that best characterizes the nature of assets and importance of their scrutiny came from Ben Graham himself, in the book Security Analysis, "The liabilities are real, but the value of assets must be questioned."

This statement is the Gettysburg Address of balance sheet valuation. Aside from cash and equivalents, asset values, although not as much as in years past, are still somewhat subject to a company's accounting philosophy and practice. Valuation of liabilities, on the other hand, is not subject to management control. You owe someone a buck, you owe them a buck.

The prudent investor tries to "peel back the onion" to get a better grip on asset and thus on company value. This requires a deeper look at financial statements and the accompanying notes, and knowledge of industries and industry competitors. Of course, it's a trade-off: Too much peeling back of the onion results in teary, weary eyes. This stuff is complex, and deriving meaning can take hours, if indeed it's possible at all. In business, it often seems that the more you know, the more you don't know. Eventually, you'll get good at recognizing where benefits of knowing deep intrinsic values aren't worth the cost of acquiring it. It's often easier to just leave behind companies that are too complex to understand.

And finally, remember to look at three defining characteristics of any asset: size, trend, and quality.

## Assigning value to assets

Table 7-1 is useful as a simple reference to convert reported asset values to liquidating value, a conservative base for intrinsic valuation. The basis for this table comes straight from Graham and Dodd's Security Analysis.
Professionals may use evolved versions, but this table is still a handy tool.

| Table 7-1 | Valuing Balance Sheet Assets |  |
| :--- | :--- | :--- |
| Type of Asset | \% Range of Liquidating <br> Value to Book Value | Comments |
| Cash, cash <br> equivalents | $100 \%$ | More is better. Watch out for the <br> post-IPO "stash." |
| Accounts <br> receivable | 75 to $95 \%$ | Look at write-offs. |
| Inventory | 50 to $75 \%$ | Less for businesses with high <br> obsolescence exposure. Look <br> at write-offs. |
| Fixed assets | 1 to $50 \%$ | Depends on what kind of asset and <br> where it is. Watch for obsolescence. |
| Intangibles | 1 to $90 \%$ | Usually lower for acquisitions, higher <br> for patents and trademarks. Fast <br> depreciation is better. |

## Does the Company Owe Money?

The preceding section identifies business resources in place (on the books at least) to produce income. Now it's time to identify where these resources come from. Recall that assets = liabilities + owners' equity. Now it's time to take a look at the right side of the enterprise equation to identify what a company owes and what it owns free and clear, and what it all means to you.

As Ben Graham's quote suggests, assessing liabilities is fairly straightforward. Although different things can be done to state asset values differently, we know of no creditors that afford the same opportunity to liabilities. If you owe, you owe. The effect on a company's intrinsic value is straightforward.

## Current liabilities

Like assets, liabilities come in two basic flavors: current and long term. Current liabilities are just as implied: liabilities for which payment is due normally in less than a year. As a personal analogy, your monthly credit card, any other monthly bill, or a monthly payment on a longer-term debt like an installment loan, are short-term liabilities, while your 30-year mortgage is a long-term liability. The portion of that mortgage you pay every month is a current liability, found on the statements as the current portion of long-term debt due.

## Payables

Almost everyone, whether an individual or a corporation, has payables, defined as money owed to others for products purchased or services rendered. The liability is created when the service or product arrives; a cash payment follows to discharge the liability. Nearly all companies maintain a regular balance of current accounts payable, interest payable, and the like. If payment is received in advance, as with a deposit, the unearned portion is tracked as a liability. Sometimes contingent liabilities may be recorded, as in warranty claims expected to be paid but not yet actualized.

## Payables and value investing

In personal finance, everyone wants to reduce or eliminate current payables. Books, TV shows, and personal finance experts all advocate getting out of debt. And for the most part they're right. Liabilities represent diminished worth and, with prevailing interest rates, can be quite expensive.

But in corporate finance, the approach is a little different, and the mood has been shifting. Brought on in part by reduced interest costs and in part by enormously successful business models such as Dell Computer, trying to reduce liabilities - at least short-term liabilities - to zero is no longer in vogue. Why? Because companies like Dell can run their day-to-day business on someone else's money. And because most accounts payable come with a 30 -day pay period, Dell and others have realized that "someone else's money," in this case, can be had virtually for free. And here's the bottom line: It takes relatively small equity capital requirements from the owners to support the business, producing a relatively high return on equity invested for those owners.

So value investors don't need to take much note of current liabilities other than perhaps to spot large changes or trends. Investors should also realize that current liabilities aren't necessarily a bad thing and can result in higher effective returns on ownership capital with relatively low cost and risk.

## Lonq-term liabilities

Long-term corporate liabilities are really no different than those found in personal finances: They represent contracted commitments to pay back a sum of money over time with interest. For the individual, they come in the form of loans and mortgages; for the corporation, they occur more often in the form of tradable notes and bonds.

## Debt and the value investor

Like short-term liabilities, you don't need to look too closely at the quality of these liabilities, or even the amount if reasonable by previous company or industry standards. Trends can be important, however. Increased reliance on long-term debt may be a sign of trouble. The company may not be making ends meet and may be having trouble raising capital from existing or potential owners - never a good sign.

In addition, a company constantly changing, restructuring, or otherwise tinkering with long-term debt may be sending tacit trouble signals. The company may be seeking concessions from lenders behind the scenes. In any event, attention paid to this kind of activity diverts attention from the core business, which is not a good thing and a warning flag for value investors.

## How much is too much?

Finally, excessive use of debt signals potential danger if things don't turn out the way a company expects them to. Leverage is a good thing when things are going a company's way. Debt financing can be used to produce more product for more markets and thus more profit and, in the end, a bigger business. Return to owners is proportionately higher: Their investment stays the same while the returns grow. But as everyone knows, this can work the other way. Value investors don't like surprises, and a company with uncertain prospects and a lot of debt may not make it onto their list. Industry standards and common sense apply to debt-to-equity ratios.

## And Now, Meet the Owners

Because you're contemplating making an investment in a company, isn't owners' equity the most important balance sheet item? You and other investors, in essence, are either directly or indirectly contributing capital that is in turn converted into an asset, which is then converted into revenue and profit to produce a return to the owner. You're making a decision to allocate capital to a company that in turn does the best job allocating capital to endeavors that produce the best return.

Like liabilities, the owners' equity portion of the balance sheet is critical to a company's function, but it requires relatively little scrutiny on your part. The following short tour avoids the tedious discussions of classes of stock, par value, and so forth that burden so many finance readers. For this discussion, owners' equity consists of two things: paid-in capital, a fancy word for stock, and retained earnings.

## Paid-in capital

Paid-in capital represents the total value paid into the company by its owners - its shareholders. It gets a little complicated with the discussion of par value and "additional" paid-in capital. Total paid-in capital represents capital actually paid into the company at initial or subsequent company stock sales and has nothing to do with market price or market value. In and of itself, you need to pay little attention to this item.

## Retained earnings

Retained earnings are profits from past operating periods that are reinvested, or "retained," in the business. Technically speaking, company profits belong to the shareholders, but it is the management's prerogative to decide whether to actually pay them out. Typically, managers think that they can invest the money more effectively than their shareholders, while shareholders investing in those companies are betting that they're right.

So long as a company's business is viable, shareholders probably want to see retained earnings as high as possible. It's a capital allocation game - the earnings are better suited to that company's purpose than anywhere else. By investing in the company, you've already decided that, so you may as well keep your money on the table.

So generally, more is better, especially if accompanied by a reasonable dividend policy in which management is sharing some of the spoils with the owners. On the other hand, watch for rapidly declining or, worse, negative retained earnings balances. Negative retained earnings are an almost sure sign of trouble, usually brought on by asset values declining faster than expected, excessive debt, an overinflated stock offering price, or a combination of the three. As a value investor, you should view negative retained earnings as a bright red signal flare.

## Paging through book value

Owners' equity is the sum of paid-in capital and retained earnings. (There can be a few other small crumbs of ownership, but they're seldom significant.) In theory, this is also the book value of a company - the actual net value as determined by the company's accounting for its business. The book value is the net of assets (which it can value and report with a degree of latitude), and liabilities (which occur at face value). Thus, book value reporting is done with a degree of latitude. Value investors talk about three different book value measures:
$\checkmark$ Book value is owners' equity, or total book assets less liabilities.
$\checkmark$ Tangible book value is total book value less all or part of intangibles.
$\checkmark$ Book value per share is the stated book value divided by the number of common shares outstanding.

All three of these measures crop up in value investing discussions and papers, but be careful because sometimes they're used interchangeably.

If you want a detailed assessment of book value, you can do your homework by applying asset valuation formulas presented earlier. A little less tedious approach is one used by Buffett and others: Don't get hung up on the absolute book value because you could go crazy trying to assess it with the information provided. Rather, looking at trends and changes in book value may be easier and better. You may also find it useful to examine stated book values relative to business activity and compare with the industry and competitors.

## Book in, intrinsic out

Warren Buffett put it all together nicely. He observed that book value is the sum of what investors put into (or leave in) the business, while intrinsic value is what investors can take out of the business. Book value or net worth as discussed in this chapter is a key component of a company's intrinsic value. But another and perhaps more important component of intrinsic value is the net present and future income stream that a company can earn for the investor. Chapter 8 takes a closer look at income and income reporting, Once all the pieces are in place, intrinsic valuation is discussed in greater depth in Chapter 12 and beyond.

## Chapter 8

## Statements of Fact Part 3: Earnings and Cash Flow Statements

## In This Chapter

$>$ Discovering the importance of earnings and cash flow

- Examining key parts of earnings and cash flow statements

Understanding important differences between earnings and cash flow
Using earnings and cash flow information for investing

> 1ust as life cannot be measured or evaluated by a single snapshot, neither can a business. Chapter 7 presents a fixed-in-time snapshot of business life: the balance sheet. This snapshot gives a view of business resources (assets) and how they are contributed to the business (liabilities and owner's equity). But what about the business activity that happens between snapshots? What went on between each release of the shutter? Sure, a comparison of one snapshot to another tells you something changed, just as sequential vacation snapshots show different family members in different places. But what happened between shots, and why?

This is where earnings and cash flow statements come in. The balance sheet is critical in evaluating the financial state of a business; the income and cash flow statements together measure business activity and results. Earnings and cash flow statements show the pulse of the business and explain changes in balance sheet snapshots. With these statements, the business analyst or investor can assemble a complete moving picture showing flows into and out of the business, successes and failures, growth and decline.

Consistent with the style used in the previous chapters, this chapter sticks to what you need to know as an investor, avoiding deep accounting technicalities.

## The Importance of Earnings

It's hardly necessary to remind anyone of the underpinning of a capitalist society and economy, which is that business and economic activity are undertaken with the idea of generating a profit. Profit is simply the gross revenue of an enterprise, minus the cost of producing that income, over a defined period of time. For businesses, it's important to measure the profit and allocate capital resources in such a way as to maximize it.

## Earnings make the world go round

So much is made of earnings and earnings reports. Do you hear much about a company's cash balance, accumulated depreciation, or owner's equity during Nightly Business Report and other financial shows? Does everyone salivate four times a year for "asset season?" No, but there's a definite "earnings season" at the end of each calendar quarter, giving financial analysts, journalists, and pundits plenty to talk about.

On an ongoing basis, earnings are the driving force and "macro" indicator of a company's success. If earnings are growing, the financial press doesn't worry much about the other stuff. Conversely, serve up a couple of double faults on the earnings front, and everybody is all over asset impairment, write-offs, debt, weak cash positions, and the other similar "disasters."

In the purest sense, long-term stock price appreciation is based on the growth of a company's asset base and owner's equity in that base. Ultimately, that comes from earnings. If a company is earning money, and particularly if it earns it at a growing rate, that's a good thing. As Warren Buffett says, "If the business does well, the stock always follows."

Earnings tell us how well a business manages its operations, while the balance sheet tells us how well it manages its resources.

## Bottom lines and other lines

You hear a lot about the bottom line, which refers to the net earnings or income after all expenses, taxes, and extraordinary items are factored in. The bottom line is the final "net" measure of all business activity.

Other important lines in the earnings statement reveal key factors and trends in the business. You'll see these lines, or items, in various forms on financial statements, depending on the statement and sometimes the industry. Among the important ones are the following:
$\checkmark$ Gross profit: This is simply the sales less the direct cost of producing the company's product or service. Direct cost includes labor, material, and expenses directly attributable to producing it. Gross profit, often called gross margin, is the purest indicator of business profitability, because each cost dollar is directly generated by production and sale of the product. Value investors closely watch gross margin trends as an indicator of market dominance, price control, and future profitability.
$\checkmark$ Operating income: This term refers to gross profit less period expenses, such as overhead or marketing costs not directly attributable to product production. Selling, general, and administrative expenses (SG\&A) usually cover all headquarters functions, information technology, marketing, and other indirect costs. It generally excludes financing costs, such as interest, and taxes. Amortization is usually included, because cost recovery for property, plant, and equipment is part of operating expense. Items deemed extraordinary are not included. Operating profit gives a more complete picture of how the business is performing on a day-to-day basis. It sometimes appears as operating income, earnings from operations, or similar.
$\checkmark$ Net income: This represents the net result of all revenues, expenses, interest, and taxes.

There are other supplemental earnings measures, such as free cash flow and "EBITDA," which are discussed later in this chapter. The point is that there are many ways to measure income. Each reveals an important layer of business performance, both for determining intrinsic value and also for comparing companies.

## Cash flow

You're probably wondering just what is the difference is between earnings and cash flow? After all, companies don't earn Starbucks cards, they earn money. Why do companies have two different statements?

Good question. The answer: The realization of accounting earnings may occur at different times from the actual receipt of cash.

The main differences arise from accrual accounting and from depreciation and other noncash amortizations and adjustments. A dollar earned today may not be collected until tomorrow, and a dollar earned today as cash may be diminished as earnings by a noncash amortization of an asset. Mainly, it's timing - although the time difference, especially with a long-lived fixed asset, can be years.

## 134 <br> Part II: Fundamentals for Fundamentalists

The number one guiding principle for all accounting and finance folks is to measure the business activity as closely as possible to what really occurs what is produced and sold and paid for - in the business. Doing so accurately and informatively means tracking both accounting and cash flows into and out of the business.

## Accrual and unusual punishment

Accrual accounting sounds scary, but what it really does is divorce the business activity from its corresponding receipt or disbursement of cash. If you build a machine and sell it to another company in April but don't receive payment until June, in which month should you recognize the production cost and sale? Accrual accounting says in April, while cash basis accounting says in June. Accrual accounting is the most accurate reflection of the business activity. In this example, labor, material, and overhead were purchased in April to build the machine, and it was sold during that month. Assuming that the cash is eventually collected, accrual accounting measures the profit of the business on the sale and costs incurred in April. So because of accrual accounting, the timing of cash flows versus the recognition of revenue, expense, and earnings may be different.

## Amortized to death

Likewise, depreciation and amortization are accounting transactions designed to recover the cost of large cash outlays for property, plant, and equipment, and sometimes other costs. The large cash outlay happens once, and it may be years before the expense is recognized. Amortizations are noncash transactions; they're simply recognition of a portion of an asset value as an expense during a period. So, to simply illustrate the difference between cash and accounting flows for amortization, if net income is $\$ 50,000$ but there is also a $\$ 20,000$ amortization expense recognized in the same period, all things being equal, how much cash did the business take in? The answer: $\$ 70,000$.

To summarize the difference between earnings and cash flow statements:
$\checkmark$ Earnings statements measure business activity as it occurs, regardless of cash flow, and including noncash amortization and other transactions.

Cash flow statements specifically track the movement of cash into and out of the company. This cash flows into and out of the "cash and marketable securities" item on the balance sheet.

## What to look for

Used by investors of all kinds, earnings statements are among the most widely examined of company publications. Even the most short-term trader trades in anticipation of earnings announcements, compares net income with projections, and trades on the result. Investors look at the top line (revenue
or sales) and the bottom line. For value investors, earnings statements are indispensable, and most will take a much more in-depth look at the underlying numbers, trends, and history.

The following sections highlight important attributes to look for in an earnings statement.

## Growth

After all is said and done, the long-term growth of a stock price is driven by growth in the business. Growth in the business means growth in the earnings - there is no other way to sustain business growth without infusions of additional owner capital. Sure, you can acquire, merge, or sell more stock to make a business larger by common definitions, but has the business really "grown"?

The value investor works to obtain a deep understanding of business growth, growth trends, and the quality of growth. Is reported growth based on internal core competencies? Or is it acquired or speculative growth based on unproven ventures? The value investor assesses growth and growth patterns, judges the validity of growth reported, and attempts to project the future.


A business' ability to grow on its own, through its own success and resulting earnings, is known as organic growth. Growth through acquisition or other capital infusions is not "organic" and thus does not suggest growth in true business value.

## Consistency

Long-term growth should be sustainable and consistent. Look for sustained growth across business cycles. A big pop in earnings one year followed by malaise for the next two does not paint a pretty picture. Long, consistent, successful earnings track records get the A grades.

Beyond earnings, consistency is a desired feature for other parts of the earnings statement. Consistency in sales and sales growth, profit margins and margin growth, and operating expense and expense trends is highly prized. The less consistency, the more difficult to predict the future five or ten years and beyond, and the less attractive a company looks to value investors.

## Healthy components: Comparative and trends

Value investors look at individual lines in the earnings statement, not just the bottom line. Improving gross margins - especially sustained improvement signal strong business improvement. Costs are under control, and the company is improving its market position. Likewise, improving operating margins can show better cost control, greater efficiency, and rewards from earlier expansion cycles. And value investors constantly compare companies in
similar industries. Gross margins of competing computer manufacturers, for instance, tell a lot about who has the best market position, production and delivery process, and business model.

Comparing the incomparable is an all-too-common investing pitfall. With earnings statements, this error takes three forms:
$\checkmark$ Earnings statements are not always broken down the same way. Although the bottom line is the bottom line, the intermediate steps may be different. One company's operating earnings may include marketing costs, while another's may not. Typically statements from firms in the same industry are comparable, but not always.
$\checkmark$ Two companies that appear (and even are classified) in the same industry may have differences large enough to raise caution. Commercial and industrial suppliers, such as Honeywell, have consumer divisions, while consumer businesses, such as Procter \& Gamble, have industrial divisions. Many businesses supply a mix of products in a mix of categories to a mix of customers. "Pure plays" in a business or industry are not always easy to find. The upshot: You must understand businesses before comparing them.
$\checkmark$ Numbers may include extraordinary items. Before comparing operating or net profit numbers, consider whether there have been write-offs for discontinued businesses or impaired assets that may be causing one-time distortions in the numbers.

## Quality

As Wall Street exerts ever-increasing pressure on companies to perform to a stringent set of expectations, the idea of accounting "stretch" enters the picture. Even in complying with the rules, companies have latitude to apply accounting principles in ways that make performance look better. Later in this chapter and in Chapter 9, we explore how this latitude can affect the quality of earnings reports, although recent legislation and standardizations, like the Sarbanes-Oxley Act discussed in Chapters 6 and 9, have brought financial reporting generally more in line with reality.

## Exploring the Earnings Statement

In this section, we explore a specific income statement and take it apart to explore its components. We continue with the example provided by building products supplier Simpson Manufacturing. Note the naming flexibility: The earnings statement is presented as a Consolidated Statement of Operations in the annual report, and here in Figure 8-1 as a condensed Income Statement from Yahoo! Finance.

## Don't fall off the cyclical

Always be wary of cyclical stocks. True, companies such as Caterpillar or Deere may look irresistible with low price to earnings (P/E) ratios and high short-term sales and earnings growth rates. But a closer look at the long term reveals a $P / E$ in the teens and years of marginal earnings or even losses mixed in. Look at the long term and be aware of stocks that dip as the business cycle dips. Basic industries, such as
capital equipment, natural resources, paper, farm machinery, automobiles, and auto suppliers, are notorious for sending signals of intermittent strength while showing little in the way of sustained growth. The recent tanking of homebuilding stocks is an extreme case in point. It is amazing how many short-term-oriented investors bit on the apparent "value" in this sector!

Income Statement

Figure 8-1:
Simpson Manufacturing Income

View: Annual Data | Quarterly Data

| PERIOD ENDING | $\mathbf{3 1 - D e c - 0 6}$ | $\mathbf{3 1 - D e c - 0 5}$ | 31-Dec-04 |
| :--- | :---: | ---: | ---: |
| Total Revenue | $\mathbf{8 6 3 , 1 8 0}$ | $\mathbf{8 4 6 , 2 5 6}$ | $\mathbf{6 9 8 , 0 5 3}$ |
| Cost of Revenue | 517,885 | 529,993 | 417,417 |
| Gross Profit | $\mathbf{3 4 5 , 2 9 5}$ | $\mathbf{3 1 6 , 2 6 3}$ | $\mathbf{2 8 0 , 6 3 6}$ |
| Operating Expenses |  |  |  |
| Research Development | 19,254 | - | - |
| Selling General and Administrative | 164,174 | 164,578 | 149,419 |
| Non Recurring | 457 | $(2,044)$ | - |
| Others | - | - | - |
| Total Operating Expenses | - | - | - |

Operating Income or Loss
Income from Continuing Operations
Total Other Income/Expenses Net

| Total Other Income/Expenses Net | 3,927 | 2,029 | 749 |
| :--- | ---: | ---: | ---: |
| Earnings Before Interest And Taxes | 165,240 | 155,758 | 131,966 |
| Interest Expense | 208 | 194 | 364 |
| Income Before Tax | 165,032 | 155,564 | 131,602 |
| Income Tax Expense | 62,370 | 57,170 | 50,094 |
| Minority Interest | $(166)$ | - | - |
| Net Income From Continuing Ops | 102,496 | 98,394 | 81,508 |

Non-recurring Events
Discontinued Operations
Extraordinary Items
Effect Of Account Changes
Other Items

| Other Items | - | - | - |
| :--- | ---: | ---: | ---: |
| Net Income | $\mathbf{1 0 2 , 4 9 6}$ | $\mathbf{9 8 , 3 9 4}$ | $\mathbf{8 1 , 5 0 8}$ |
| Preferred Stock And Other Adjustments | - | - | - |
| Net Income Applicable To Common Shares | $\mathbf{\$ 1 0 2 , 4 9 6}$ | $\mathbf{\$ 9 8 , 3 9 4}$ | $\mathbf{\$ 8 1 , 5 0 8}$ |

## Starting at the top line

Sales or revenues make up the top line of any business. Normally, sales and revenues are straightforward. They represent accounting dollars generated for business products sold or services performed. (Remember, with accrual accounting it doesn't matter whether the company has been paid yet.) With more complex "b-to-b" businesses or for those selling into a distribution channel (a wholesaler or retailer), revenue recognition can be more complex.

Accounting revenue is normally recorded at the time of sale or service completion. But there are situations in which the delivery process isn't complete and may call revenue validity into question. If a distributor doesn't have to pay until a product is resold, or if the manufacturer is still required to perform significant services, such as configuration, installation, or even warranty work, a sale to a distributor or customer may be exaggerated if fully recorded as a sale. Similarly, sales to subsidiaries or affiliated companies shouldn't be considered a sale. Sales for consideration other than money, such as advertising exposure, may also be suspect.

But for the most part, sales are sales. In many businesses, such as transportation or utilities, they may be called revenues, but it's the same thing. Occasionally you will see an allowance for returns broken out; if not, you can usually safely assume that they're included in the sales figure as a negative amount. Most businesses don't give breakouts on sales returns, not even in $10-\mathrm{K}$ reports, because it isn't required and it discloses competitive information, but it would be nice to see this detail.


When comparing sales figures or projecting trends, compare apples to apples. If there is a significant acquisition, divestiture, or extraordinary change in the business, make sure to take it into account.

## Cost of goods sold

Cost of goods sold, or CGS, is an important driver of business success. For all but a few companies with high intellectual property or service content, CGS is the largest piece of the revenue pie. Cost of goods sold is the cost of acquiring goods and raw material plus labor and direct overhead expended to add value for sale.

Different accounting treatments can affect CGS. Chapter 7 covers LIFO (last in, first out) and FIFO (first in, first out) as different ways of valuing balance sheet inventory. This valuation can also affect CGS - if more expensive LIFO raw material units are assumed to be consumed first, that will drive $u p$ the CGS and down the gross margin, operating income, and net income. Hence, LIFO is the more conservative reporting method except in some technology industries in which older components may actually cost more. (Note 1 in the
financial statements usually clarifies accounting methods.) Value investors should be careful to understand which accounting method is used before comparing companies, and watch for changes in accounting methods that may shift reporting bias. In a price-stable low-inflation environment, the LIFO-FIFO thing becomes less important.

CGS varies widely by industry and industry cost structure. For example, the physical CGS of Microsoft is tiny with respect to revenue, whereas a grocery store or discount retailer may see CGS in the 70 or 80 percent range. Apples-to-apples comparisons and especially trend analyses are critical to effective business appraisal.

## Gross margin

Gross margin, or gross profit, is simply the sales less the cost of goods sold. It is the basic economic output of the business before overhead, marketing, and financing costs enter the picture. Gross profit takes on added meaning when taken as a percentage. This percentage - and trends in the percentage speak volumes for the health and direction of the business.

## Operating expenses

You can't make a joist hangar without a plant and a headquarters function and an IT department, and you probably can't sell it either.

No matter the business, any company incurs indirect costs, or costs of doing business not directly related to producing and selling individual units of product or service. Some call it overhead, but it goes a little beyond the traditional definition of overhead and into marketing, R\&D, and other costs necessary to sustain the business in addition to directly producing products.

## Selling, general, and administrative (SG\&A)

Selling, general, and administrative (SG\&A) is a favorite target of value investors. SG\&A includes marketing and selling costs, including advertising, sales and sales forces, marketing and promotion campaigns, and a host of other administrative and corporate expenses such as travel, Web sites, office equipment, and the like.

Many investors use SG\&A as a barometer of management effectiveness - a solid management team keeps SG\&A expenses in check. SG\&A can mushroom into a vast slush fund and an internal corporate pork barrel that can easily get out of control. Like gross margin, looking at SG\&A as a percentage is best. For an example of SG\&A analysis, see the "Practical example: SG\&A at Simpson" sidebar.

## Simpson: A look at the top

Here's a look at the Simpson Manufacturing top line, CGS, and gross margin in Figure 8-1.

This picture covers a relatively short period of time - three years - and investors are encouraged to look at longer time periods, either through other parts of a company report or through an investing service like Value Line.

Sales grew from $\$ 698$ million in 2004 to $\$ 863$ million in 2006. Nominally, this reflects slowing growth, dropping from 21.2 percent between 2004 and 2005 down to only 2.0 percent from 2005 to 2006. Overall this is an 11.2 percent compounded growth rate (see Chapter 4), which isn't bad.

The difference between the years makes it worth checking whether a recent acquisition caused a jump from 2004 to 2005. Checking the annual report, there was a small one, but according to Note 2 of that report "Pro forma
results of operations have not been presented as the effect has not been significant for all periods presented." So Simpson had a really good year followed by a so-so year as construction spending slowed. Cost of revenue (another name for CGS) grew at a rate apparently close to sales. A closer look will tell.

If you take gross margin in dollars and divide by each year's sales, you come up with 40.2 percent in 2004, 37.4 percent in 2005, and 40 percent even 2006. This probably isn't enough to show a trend, especially not a growth trend, but it could be assessed as at least steady. The large 2005 sales increase suggests there may have been a small change in pricing strategy or product mix to achieve the stronger growth numbers; this is common. Again, it helps to know the business, know the quarterly and annual patterns, and know the facts that support the numbers where possible.

## Research and development

Manufacturing and technology companies in particular need to invest in future products. Because these investments occur long before product production, and because many of them never pan out into saleable products, companies are allowed to expense research and development (R\&D) as a period expense.


Simpson, our example, does have a small R\&D function with reported costs of $\$ 19.2$ million, or about 2 percent of sales in 2006 . No R\&D expenses were reported in 2004 or 2005 in the Yahoo! Finance summary, but smaller figures do appear in the Simpson annual report. It is always a good idea to check actual company statements, although the difference in this case wasn't really worth worrying about.


A few companies have been able to capitalize software development costs; that is, build them into an intellectual property asset instead of expensing them, thereby inflating earnings. Accounting principles, aside from this exception, state that R\&D costs must be expensed as incurred. There's quite a bit of debate on this topic, for many R\&D expenses have a long-term payoff and are key to building a business. Expensing them is a conservative accounting
approach, because today's expenses may bring in a lot of tomorrow's revenues. For obvious competitive reasons, companies don't disclose much detail about their R\&D expenses.

Appropriate levels of R\&D expense vary widely by industry. For example, software companies incur very large R\&D as a percent of sales, but insurers or retailers have small R\&D percentages. Because you won't know the detail of $R \& D$ expenditures, it's probably best to watch the trend and changes in R\&D as a percent of sales. Increasing R\&D percentages reflect an increasing cost of doing business and possibly ineffective R\&D, while decreasing R\&D as a percent may reflect sacrificing the future for the present. Neither is a good thing. Watch for these changes and any explanations thereof.

Also note that companies without a significant R\&D effort may not report it as a separate line. In some financial statements, it's called "product development," or it may be bundled into some other expense line.

## Appreciating depreciation (again)

Chapter 7 covers the effect of depreciation on balance sheet asset figures. This chapter discusses the effects of depreciation and amortization on earnings and cash flow.

Depreciation and amortization represent the accountant's assignment of the cost of a long-lived asset to specific business periods. Depreciation is used when referring to physical fixed assets, and amortization is used when referring to intangible assets (such as goodwill, patents, and so forth). Some oil and natural resource investors may run into the term depletion: A cost recovery for exhaustion of natural resource assets.

## Practical example: SG\&A at Simpson

For Simpson, selling, general, and administrative (SG\&A) dropped from 21.4 percent of sales in 2004 to 19.4 percent in 2005 and 19 percent in 2006. This is a good performance, and probably reflects economies of scale and effective management.
Normally, economies of scale should bring some decline in the percentage in the long run, as economies of scale allow for more business activity to occur per unit of headquarters cost, IT cost, and so on. In the short run, SG\&A may increase more rapidly as marketing campaigns
or staff are added or new facilities are required. That's why a longer view is really needed to make a final determination of whether SG\&A is on the right track.

Company comparisons are appropriate here, too. But watch again for economies of scale. Although Wal-Mart reports SG\&A at 18.4 percent of sales, easily beating bookseller Borders at 24.3 percent, the sheer size of Wal-Mart suggests that its SG\&A should be lower as a percentage. Compare carefully.

Depreciation and amortization expenses are usually broken out on the earnings statement, but may also be buried in a consolidated SG\&A or other operating expense line.

Do you really want to know what a company wrote off for depreciation in a reporting period? Then refer to the statement of cash flows. This is jumping ahead a bit, but depreciation, a noncash expense, is a major source of difference between accounting income and cash flow. So, accountants show depreciation as a separate add-back item on the cash flow statement.

What should you look for? The actual amount of depreciation is normally not that important. What is more important is the method and time period over which it occurs. Accelerated depreciation methods result in more conservative earnings statements. Companies sometimes use straight-line methods for financial reporting and accelerated methods for tax purposes - giving rise to two sets of books and can contribute to the deferred taxes lines in the balance sheet. Watch for sudden changes in depreciation methods, and be careful when comparing especially capital-intensive companies to assure that they're using comparable depreciation methods.

## Impairments, investments, and other write-downs

When the value of an asset changes significantly in the eyes of management, a company can elect to take a write-down recognizing the change. The writedown shows up as a decrease in asset value on the balance sheet for the asset category involved and as a (usually) one-time expense somewhere on the earnings statement. The rules for when and how to take these write-downs are somewhat flexible. The rules for writing down investment losses are particularly complex and beyond the scope of this book. The good news is that writedowns are normally reported as a separate line and are well documented in the notes.

For value investors, knowing the detail or amount may not be as important as knowing the pattern. Are these write-downs really one-time adjustments, or does the company continually overinvest in unproductive technology? Are companies quick to recognize mistakes, or do they linger, pushing an everlarger "bow wave" toward amortization and earnings oblivion? Write-down behavior provides insight into management behavior and effectiveness, as well as overall business consistency, and should not be ignored.


It is also critically important to understand write-offs and one-time charges when building intrinsic value models (more in Chapter 12). Many intrinsic value models base forward projections on the most recently reported net income numbers. Most financial portals and automated investment analysis tools simply take the latest year's earnings figure from a database. If that figure was significantly reduced (or enhanced) by extraordinary items, a large (and compounded!) error in the intrinsic value assessment can occur.

## Giving to goodwill

As presented in Chapter 7, intangible assets are long-lived assets that have no physical existence. Included are patents, copyrights, trademarks, franchises, and other legal protections. Also included - and attracting more interest from value investors - are goodwill assets obtained by acquiring other companies. These goodwill assets arise when more is paid for an acquired company than it is worth in hard assets. Acquired goodwill assets often have real value - brand equity, customer base, and so forth - but more often than not, the amount booked exceeds this value, and goodwill is used as a plug-in figure to account properly for the purchase.

The treatment of goodwill has changed - it has become more uniform. The deal that accountants struck with the corporate world calls for allowing goodwill to remain on the books forever - but it also subjects them to an annual review for impairment of the fair value of those assets (FASB Standard \# 142). Goodwill amortization involved quantitative methods that can be quite complex and beyond the scope of this book. And as stated in the Simpson annual report, "determining fair value of . . . an indefinite-lived purchased intangible asset is a judgment involving significant estimates and assumptions."

Like depreciation and impairments, goodwill amortizations are accounting phenomena and don't result in a cash transaction. Goodwill amortization affects earnings, not cash flow. Informative annual reports deconstruct impairment analysis for you and give estimates not only for current but also future asset impairment charges.

You can decide how you want to appraise goodwill, but conservative is usually best. Ben Graham was particularly leery of goodwill and usually removed it entirely from company valuation, regardless of company policy. Buffett and other contemporary value investors recognize the value of patents, copyrights, brand equity, customer base, and other intellectual property and allow it to stand in valuation, so long as it's not in excess and is accounted for realistically.

## Operating income

Now, finally, we can summarize how a company has performed at its basic business by examining operating income. Operating income is simply sales less cost of goods sold, less operating expenses. Because it includes noncash amortizations, it is a "fully loaded" view of operating performance in the business.

If you closely observe the effects of amortizations, special write-downs, and accounting changes, you can better understand operating income and operating income trends. For Simpson, 2006 operating income ("Operating Income or Loss") increased to $\$ 161.4$ million from the previous year's $\$ 153.7$ million, a modest increase.

## Interest-ed and taxed

Interest and especially taxes are the corporate world's equivalent of the proverbial sure things. So not surprisingly, space is reserved for them on the earnings statement.

Companies invariably have some form of interest income or interest expense, and usually both. Interest income comes primarily from cash and short-term investments held on the balance sheet, while interest expense comes, not surprisingly, from short- and long-term debt balances. Interest reporting is usually done as net interest; that is, by combining interest income and expense into a net figure. Taxes are quite complicated, just as they are for individuals, and the details go beyond the scope of this book. There is normally an income tax provision recorded as a single line item on the earnings statement, consisting of Federal, state, and local taxes put together.

You don't need to pay too much attention to these areas except where interest expenses are disproportionately high and growing. In most situations value investors treat taxes as a given, unless the company has recently been through tough times and has a lot of write-offs to carry forward. If that's the case, taxes can be artificially low for a while; investors must take into account when they will return to a normal level.

## Income from continuing operations

What results from netting out interest and taxes from operating income is income from continuing operations. This figure gives a good picture of company performance, not only from an operating but also a financial perspective. A close look at interest costs tells, for instance, whether operating success (operating income) comes at a financial price (high interest expense). If operating income is low or declining while financing cost (interest) is large or increasing, look out below!

Income from continuing operations tells shareholders, in total, what their investment is returning, after everyone, including Uncle Sam and his brethren, is paid. Income from continuing operations is a good indicator of total business performance, but be aware of truly extraordinary events driving expenses or income.

## Ordinary extraordinaries

Extraordinary items on an earnings statement are, according to accounting rules, to be tied to events that are unusual and nonrecurring. Unusual events aren't related to typical activities of the business, at least going forward. Nonrecurring events aren't expected to occur again.

Extraordinary items commonly result from business closures ("discontinued operations") or major restatements due to changes in accounting rules. They may result from debt restructurings or other complex financial transactions. They may result from layoffs and other employee transactions. Extraordinary items generally are not supposed to include asset write-downs (such as receivables, inventory, or intangibles), foreign currency gains or losses, or divestitures. Some companies interpret the accounting rules and guidelines more strictly than others.

Our advice to you is to watch for extraordinary expenses that aren't so extraordinary. For example, companies that routinely have some kind of write-off every year or reporting period aren't doing as well as the investing community is being led to believe. If earnings are consistently a dollar a share each quarter with a consistent $\$ 4$ write-off each year, the true value generated by the business is closer to zero than four.

## A bit of EBITDA

Some companies and financial analysts like to use EBITDA, or Earnings Before Interest, Taxes, Depreciation, and Amortization, as their business health barometer. EBITDA fans consider it the truest indicator of operating success, and many companies use it internally as a barometer for operating decisions. EBITDA measures operating cash generated before non-operating interest and taxes and noncash depreciation and amortization. In a sense, EBITDA is operating income before accountants, bankers, and government. EBITDA is also sometimes looked at as a liquidity measure: Positive-EBITDA companies can service their debt, while negativeEBITDA companies must borrow more.

Although the desire for "pure" business measures makes EBITDA compelling, many value investors look at EBITDA as a dangerous shell game. Sooner or later, a company must replace assets, as a business can't proceed on the assumption that its assets will last forever. Ironically this is especially true for the technology businesses that have traditionally favored the measure but sit on top of some of the most rapidly depreciating assets! And as for interest and taxes, they're facts of business life. Who are we kidding anyway? Beware of glowing announcements of positive EBITDA, especially when accompanied by losses on the earnings statement.

## The bottom line: Net income

Sales less CGS, less operating expenses, less interest and taxes, less or plus extraordinaries give you a company's net income, sometimes referred to as income attributable to common shareholders or some similar phrase.
Net income represents the final net earnings result of the business on an accounting - not necessarily a cash - basis.

Net earnings are usually divided by the number of shares outstanding to arrive at earnings per share - the common barometer heard in nearly all financial reports. Most analysts and investors focus on diluted earnings per share, which figure in outstanding employee stock options and other equity grants beyond actual shares outstanding in the share markets.

## In and Out of Pocket: Statement of Cash Flows

Earlier we mentioned the difference in timing between certain accounting transactions and related cash collections and disbursements. Build it and ship it this month and record the revenue, even though cash payments may not arrive until months later. Buy and pay for a million-dollar machine today, but expense it over its production life through depreciation. Amortize a patent and never write a check at all.

These transactions and a host of others create differences between accounting earnings and cash measures of business activity. A business needs cash to operate. A business generating positive cash flow is much healthier than one bleeding cash and borrowing or taking cash from investors to stay afloat. Because of noncash items, earnings statements don't give a complete cash picture. So value investors use the statement of cash flows as a standard part of the financial statement package.


Sometimes the statement of cash flows is called "sources and uses of funds" or something similar, although that is becoming less common. Accountants use the terms "funds" and "cash" interchangeably.

The statement of cash flow tracks cash obtained in, or used for, three separate kinds of business activity: operations, investing, and financing.

## Cash flow from operations

Similar to operating income, cash flow from operations tells what cash is generated from, or provided by, normal business operations, and what cash is consumed, or used in the business. Net income from continuing operations is the starting point, to which cash adjustments are made. That net income for Simpson in 2006 is $\$ 102.5$ million (see Figure 8-2).

To that figure, add (or subtract) what was called the "adjustments to reconcile net income to net cash provided by operating activities" in the Simpson annual report (refer to Figure 6-3) or "Operating Activities: Cash Flows Provided By or Use in" section in the Figure 8-2 Yahoo! Finance summary.

The first adjustment item is depreciation, which in 2006 was $\$ 24.5$ million. So far, we know that without other adjustments, $\$ 24.5$ million more in cash was generated than reported as net income, because depreciation was subtracted from net income, but not from cash flow because it isn't a cash expense. So far, so good.

After a catch-all "Adjustments to Net Income" category comes "Changes In Accounts Receivables" of $\$ 7.1$ million. Because that is a positive number, it means $\$ 7.1$ million in cash was generated for the business by receivables activities, which means - because cash is used, albeit indirectly to finance receivables - that receivables must have decreased for the period. Similarly, in the next line, "Changes in Liabilities," the parentheses indicate a negative number - that is, cash was used for this item. This means cash was used to pay off some liabilities. Next comes the change in inventories of $\$ 34.1$ million - negative - meaning that $\$ 34.1$ million in cash was used to buy inventory.

It takes a while to get used to the logic: A positive number means that the item sourced or generated cash; a negative number means that the item used cash. And by now, it's also apparent that cash sourced through depreciation and to a lesser extent by receivables was in effect used to buy inventory.

Finally, you arrive at a total "Total Cash Flow From Operating Activities," a figure of $\$ 99.067$ million, derived by netting the adjustments to total income. This is a very important figure, because it shows that Simpson generated about the same amount of cash as it did income. Essentially, this is cash generated by ongoing day-to-day business activities. If this amount is negative, that's bad, because it means that the business isn't even supporting itself on a day-to-day basis and requires an infusion of cash. If it's positive - we're still not out of the woods yet - capital investments may still require more cash than the business is producing. On to that question next.

| Cash Flow |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| View: Annual Data $\mid \underline{\text { Quarterly Data }}$ |  |  | All numbers in thousands |  |
| PERIOD ENDING |  | 31-Dec-06 | 31-Dec-05 | 31-Dec-04 |
| Net Income | 102,496 | $\mathbf{9 8 , 3 9 4}$ | $\mathbf{8 1 , 5 0 8}$ |  |


| Operating Activities, Cash Flows Provided By or Used In |  |  |  |
| :--- | ---: | ---: | ---: |
| Depreciation | 24,536 | 22,370 | 18,445 |
| Adjustments To Net Income | 3,601 | 4,292 | 10,890 |
| Changes In Accounts Receivable | 7,109 | $(13,260)$ | $(20,296)$ |
| Changes In Liabilities | $(3,847)$ | 15,303 | 15,862 |
| Changes In Inventories | $(34,139)$ | 8,409 | $(83,093)$ |
| Changes In Other Operation Activities | $(689)$ | $(4,906)$ | $(497)$ |
| Total Cash Flow From Operating Activities | $\mathbf{9 9 , 0 6 7}$ | $\mathbf{1 3 0 , 6 0 2}$ | $\mathbf{2 2 , 8 1 9}$ |

Investing Activities, Cash Flows Provided By or Used In

|  | Capital Expenditures | $(51,537)$ | $(42,602)$ | $(45,966)$ |
| :---: | :---: | :---: | :---: | :---: |
|  | Investments | - | 16,800 | 27,644 |
|  | Other Cashflows from Investing Activities | $(8,935)$ | 4,068 | $(31,895)$ |
|  | Total Cash Flows from Investing Activities | $(60,472)$ | $(21,734)$ | $(50,217)$ |
| Figure 8-2: Simpson Manufacturing consolidated statements of cash flow. | Investing Activities, Cash Flows Provided By or Used In |  |  |  |
|  | Dividends Paid | $(15,444)$ | $(9,606)$ | $(7,194)$ |
|  | Sale Purchase of Stock | $(8,219)$ | 4,095 | $(27,062)$ |
|  | Net Borrowings | (872) | $(1,307)$ | $(3,549)$ |
|  | Other Cash Flows from Financing Activities | 3,056 | - | - |
|  | Total Cash Flows from Financing Activities | $(21,479)$ | $(6,818)$ | $(37,805)$ |
|  | Effect Of Exchange Rate Changes | (20) | $(1,764)$ | 983 |
|  | Change In Cash and Cash Equivalents | \$17,096 | \$100,286 | (\$64,220) |

## Cash flow from investing activities

Cash flow from operations tells what cash was generated in the normal course of business and by changes in current asset and liability (working capital) accounts on the balance sheet. But what about cash used to invest in the business? Invest in other businesses? What about cash acquired by selling investments in other businesses? The second section of the statement of cash flow provides this information.

This section shows, among other things, cash used for investments in the business, including capital expenditures for plants, equipment, and other longer-term product assets. For most growing companies, while cash flow from operations should be positive, cash flow from investing activities is often negative. Why? Because growing companies need more physical investments - property, plant, and equipment (PP\&E) - to sustain growth.

## How changes in current assets and liabilities affect cash

In different financial statements, it's common to see accounts receivable, inventories, and accounts payables either providing or using cash. Sometimes the logic is hard to follow what if "Changes in Accounts Payable" is generating cash? How does that work? How can an increase in accounts payable (a biggerliability) generate cash? In your personal world, an increased Visa card balance is hardly followed by a check in the mail. Is this another dreary example of how corporations are treated better than individuals in our society?

No, not really. The confusion is caused by other accounting transactions happening behind the scenes, but it really does work out. An accounts payable increase indicates that something was bought from someone. That something whether books, entertainment services, or washroom supplies - resulted in an increased account payable and a corresponding expense against earnings. Without that expense, net income would have been higher

Suppose the company you're watching has a $\$ 45$ million increase in cash from accounts payable. There is $\$ 45$ million in cash floating around in the business that didn't show up in net income. Let's suppose that one large item was purchased for $\$ 45$ million. An accounting expense was incurred when the payable was created, but no cash has yet been used to pay the bill. It's still in the bank. So while the expense was incurred, reducing earnings, the cash wasn't paid and, at least for now, there's more cash in the business.
Repeat this over and over for lots of small purchases, and the higher level will be sustained, and it will become a source of cash for the business. This is, in fact, how Dell uses accounts payable to generate cash.

Increases in liabilities provide cash. Decreases in liabilities use cash. (This concept is easier to grasp: a single cash transaction to pay a bill.) Increases in current assets (other than cash) use cash. Decreases in assets (as in a net decrease in inventory) provide cash. It will all come together with practice.

It is possible to generate positive cash flows in this part of the statement, either by selling PP\&E or by selling investments owned by the company. More often than not, the total "Cash Flows from Investing Activities" is negative, and that's perfectly normal.

By comparing net cash flows from operations and net cash flows from investing activities, you can get a first glance at whether a business is productive and healthy. If positive cash flows from operations exceed negative cash flows from investing activities, then the business produces more cash than it consumes. But don't jump to a favorable conclusion too quickly - you may be looking at an airline that's about to pay for five new jets in the next quarter. A surplus cash situation must be sustained to be meaningful.

## "Free" cash flow

Sounds like what we all want, right? Positive cash flow, and it's free. Free cash flow is a good indication of what a company really has left over after meeting obligations, and thus could theoretically return to shareholders. For that reason, free cash flow is sometimes called "owners' earnings."

Free cash flow is defined as net after-tax earnings, plus depreciation and amortization and other noncash items, less annual capital expenditures, less (or plus) changes in working capital (current assets and liabilities). It is surplus cash that is really free, not waiting for a bill to come for a big capital purchase or inventory increase.

Earn income, pay for costs of doing business, and what's left over is yours to keep as an owner. Pretty simple. Free cash flow is a much more realistic longterm view of business success and potential owner proceeds than EBITDA and is used by many value investors as the basis for calculating intrinsic value.

## Cash flow from financing activities

Investing activities tell what a firm does with cash to increase or decrease fixed assets and assets not directly related to operations. Financing activities tell where a firm has obtained capital in the form of cash to fund the business. Proceeds from the sale of company shares or bonds (long-term debt) are a source of cash. If a company pays off a bond issue pays a dividend or buys back its own stock, that's a use of cash for financing.

A consistent cash flow from financing activities indicates excessive dependence on credit or equity markets. Typically, this figure oscillates between negative and positive. A big positive spike reflects a big bond issue or stock sale. In such a case, check to see whether the resulting cash is used for investments in the business (probably okay) or to make up for a shortfall in operating cash flow (probably not okay). If the generated cash flows straight to the cash balance, you should wonder why a company is selling shares or debt just to increase cash, although often the reasons are difficult to know. Perhaps an acquisition?

The Simpson statement shows a happy story for investors: $\$ 15.4$ million paid to investors as dividends, and another $\$ 8.2$ million paid out in "Sale Purchase of Stock" - this is most likely for a share buyback. In fact, Figure 6-3 shows that Simpson actually repurchased $\$ 17.2$ million in its own stock on the market; then issued $\$ 8.9$ million in stock, most likely for employee stock options and compensation. Still this isn't bad - shareholders benefited from both the dividend and the repurchase. Bottom line: Simpson is using surplus cash generated from operations to give something back to shareholders. That's a good thing.

## Chapter 9

# Games Companies Play: Irrational Exuberance in the Financial Statements 

## In This Chapter

Understanding financial reporting: Why it's important, and who makes the rules
$>$ Identifying accounting and reporting "stretch"
Looking at what's being done to improve reporting quality
Examining common financial statement tests
rom the height of the now-defunct "Y2K" tech boom, take a look at a
quarterly earnings release from computer technology supplier Sun
Microsystems, Inc.
Pro forma net income was $\$ 1.367$ billion, up 19 percent compared with last year's pro forma net income of $\$ 1.146$ billion. Pro forma earnings per share was $\$ 0.40$, an increase of 18 percent compared to last year's pro forma earnings per share of $\$ 0.34$.

Sun reported actual (or GAAP) net income (included realized gains/losses on Sun's venture equity portfolio, the effects of acquisition related charges, any unusual one-time items, and cumulative tax effects) for the third quarter of 2001 of $\$ 136$ million or $\$ 0.04$ per share, compared with $\$ 509$ million or $\$ 0.15$ per share for the same period a year ago.
Did Sun earn 40 cents or 4 cents? Just over $\$ 1$ billion or just over $\$ 100$ million?
In many cases it was hard to tell where a company was headed at the start of the new millennium. Back then, it was often difficult to know what the financial statements really revealed, because many companies played hard and fast with the rules to boost their results in investors' (and analysts') eyes. Happily, since those frothy times, with some regulatory stimulus, things have gotten better in the reporting world, although there are still some issues. As a value investor, you need a solid, consistent, and trustworthy set of numbers to evaluate companies.

But accounting rules, while improved, still allow enough flexibility to give companies latitude to manage their business and decide what to recognize, when, and how. Understanding company accounting and reporting policies and conservative versus aggressive bias - has always been considered a good value investing practice.

The market events of 2000 and 2001, and particularly the subsequent collapses of Enron, WorldCom, Adelphia Communications, and others, brought the issue to greater light. Millions of investors who never before picked up nor read a financial statement save for an occasional earnings release wondered why their stocks and entire portfolios fell apart.

But that was then; this is now. The Enron collapse and others brought the elephant in the room to center stage. The public outcry, quite readily noticed by federal and state regulatory bodies and by certain individuals like New York Attorney General Eliot Spitzer, launched an active and decisive effort to discover the games companies play to - at least sometimes - make things seem better than they are. From that outcry came new rules and clarifications and major legislation - the 2002 Sarbanes-Oxley Act - to bring accountability and responsibility for the numbers to those who report them.

This chapter, while not a complete treatise on the subject, illuminates some of the flexibility companies exploit and "games" companies still play, gives some tips on how to recognize misleading information in the statements, and, in certain cases, advises you of what further changes are being considered to improve statement quality and transparency.


The bottom line in this bottom-line reporting issue is quality. Just as with a physical product or service, low quality or poorly represented financial reporting, whether deliberate or not, is less dependable. We don't bring this issue up to point fingers or accuse companies and their management of malicious intent, but rather to caution value-oriented investors that things may not always be what they seem.

## Financial Reporting in Perspective

Back in the good old days, around 1970, fewer than 10 percent of the U.S. population owned common stocks. Stocks were owned, bought, and sold mainly by professionals in large institutions. They were bought and held for the long term. Business cycles were long, companies were stable, predictable, and relatively simple and small, and quarter-to-quarter results variations didn't much matter. If big fund managers wanted to know more about a company's numbers or performance, they simply called the company.

Today, more than 50 percent of the public owns shares. There's a large investment service industry set up to cater to retail customers, as brokers, fund managers, retirement plan managers, financial advisors - you name it. The public - and the industry that serves it - are highly tuned into stock performance and the factors that drive it. And the industry hires lots of "watchdogs," or security analysts, to translate every number, new item, or nuance from a company into a buy, hold, or sell recommendation.

Additionally, business cycles have shortened dramatically. A company with a good idea is expected to profit from it more quickly than ever. The whole world is moving faster because of technology, and because the world moves faster, companies, especially technology companies, must keep up the pace.

And finally, companies are getting bigger and more complex. They buy other companies, operate international subsidiaries, enter new businesses, and employ tens of thousands in dozens of locations worldwide. Even the simplest of businesses have become enormously complicated. Even a business like Dell Computer, which started in a dorm room and evolved into a multinational giant, ran off the rails when complexity collided with the need to demonstrate superior short-term performance, all with little to no warning to investors.

## Managing outcomes

So, what happens? Companies are under tremendous pressure to meet or even beat projections. Anything less - called a miss in the industry - can send a stock on a deep dive, from which many have never emerged. Managers, who once worked for shareholders through the company's board of directors, seem ever more to work for the investment industry and its analysts to meet their projections. The fact that capital is allocated to companies with sustained track records of meeting their numbers isn't lost on management. Meeting the numbers means raising the share price and getting the capital that a company needs. And for many executives, meeting the numbers means cashing in on the bonuses and stock options they covet in the first place to stimulate aggressive financial reporting.

Add to this fact that fewer and fewer chief financial officers (CFOs) came from the ranks of professional accountants. Increasingly, CFOs rotated into the position from other parts of the business. Often the CFO was charted more with the task of cost cutting and financial efficiency and internal control than with rigorous financial reporting. Fortunately, Sarbanes-Oxley ("SOX"), discussed in Chapter 6, has righted that ship somewhat.

The end result was predictable: Management learned to tell its story in a way that put the company in the best light. Pressure from analysts, capital sources, shareholders, and even employees made other outcomes unlikely.

This phenomenon was especially evident in technology companies, where capital needs are high, business models are complex, business cycles are the shortest, and an honest company picture could be damaging. Startup costs and initial capital outlays were huge, and often technology companies grew or filled product line gaps by acquiring other companies in lieu of incurring massive research and development (R\&D) expenses and capital outlays. But it wasn't just in the tech space as we were soon to learn.

The rest of this chapter describes where we are and where we're going with accounting principles, how they're applied in practice, and how their flexibility may still lead to some financial reporting ambiguity.

## The Rules - and Where They Come From

Not surprisingly, a well-established body of rules governs financial reporting. What is surprising: These rules aren't absolute but rather are designed to provide a framework, or a set of "guardrails" governing financial reporting.

## Fall into the GAAP

GAAP, which stands for Generally Accepted Accounting Principles, is a body of accounting rules evolved over many years by regulators, accountants, auditors, and companies in the private sector. GAAP rules provide the guideline for financial reporting. The SEC works with the FASB (Financial Accounting Standards Board), AICPA (American Institute of Certified Public Accountants), and other watchdog organizations to implement GAAP; they alone have statutory authority to enforce it. The SEC's role tends to be directed more toward investigation and compliance than rule origination.

You may justifiably be surprised at the rather loose sound of GAAP. The accounting profession would seem to be a formulaic, mathematical profession like engineering, not one based on generally accepted principles provided by agencies representing the very entities being regulated.

Instead, accounting operates more like the legal profession, where common law originates from lawyer arguments and is confirmed by a judge and a jury. GAAP is the accounting "common law," originating from practitioners and practitioner organizations and confirmed by the SEC. GAAP rules tend to be specific on some points and subject to wide interpretation on others. Interpreting and applying GAAP to company situations furnish full-time jobs for legions of financial analysts and CPAs.

Further, GAAP is sometimes criticized for allowing companies not to present a sufficiently complete picture of their performance. Performance indicators such as number of employees, number of managers, square-foot occupancy,

## FYI: FASB

Here's a little more about the Financial Accounting Standards Board (FASB) in its own words from its Web site (www . fasb . org).
"Since 1973, the Financial Accounting Standards Board has been the designated organization in the private sector for establishing standards of financial accounting and reporting. Those standards govern the preparation of financial reports. They are officially recognized as authoritative by the Securities and Exchange Commission . . and the American Institute of Certified Public Accountants. Such standards are essential to the efficient functioning of the
economy because investors, creditors, auditors, and others rely on credible, transparent, and comparable financial information.
"The SEC has statutory authority to establish financial accounting and reporting standards for publicly held companies under the Securities Exchange Act of 1934. Throughout its history, however, the Commission's policy has been to rely on the private sector for this function to the extent that the private sector demonstrates ability to fulfill the responsibility in the public interest."
sales returns, inventory composition, and so forth are routinely left out. In defense, GAAP is designed to improve financial, not operational, reporting.

Still, GAAP is widely regarded as the fairest and most consistent way for companies to report. It provides a common language for reporting, even though the same concept may be communicated in different words. In the eyes of some professionals, GAAP standards don't always provide the best measurement for their business activity, but in general, the standard survives. The details of GAAP are beyond the scope of this book.

## Accounting S-t-r-e-t-c-h

The relentless pursuit of the American corporate dream - business growth has led to increasingly aggressive accounting practices. This section explores some of the "stretch" practices used to make business results look better.

Before you get the idea that value investors should throw in the towel on gleaning dependable information from financial statements, a couple of clarifying comments are in order. First, although GAAP legally provides stretch latitude, that doesn't mean everyone does it. The largest abuses have occurred in technology and other high-growth industries. These companies felt the most pressure to meet aggressive expectations, support high stock prices, and justify large capital infusions. But this doesn't mean it doesn't occur in
other businesses. It happens, and all you can do is look for the obvious symptoms and favor companies that have simple, easy-to-understand, and conservative accounting and reporting practices.

Second, the greatest abuses got a lot of scrutiny from the SEC and its advisory boards. Several rule changes have already been implemented, and more are in the pipeline. From 2002 forward, it got better.

## Stretch points

Stretch opportunities are found in both revenue and expense portions of the earnings statement. Among the more popular "stretch points" are

$$
\begin{aligned}
& \text { Revenue recognition } \\
& \text { - Contractual services, forward revenues, service fees } \\
& \text { - Channel stuffing } \\
& \text { - Related sales } \\
& \text { • Creating sales by financing } \\
& \text { Direct costs } \\
& \text { - Warranty costs } \\
& \text { • Inventory valuation: LIFO vs. FIFO } \\
& \text { Indirect costs and expenses } \\
& \text { - Options and stock-based compensation } \\
& \text { - Depreciation and amortization } \\
& \text { - Marketing and R\&D costs } \\
& \text { • Pension funds and obligations } \\
& \boldsymbol{W r i t e - o f f s ~ a n d ~ e x t r a o r d i n a r y ~ i t e m s ~}
\end{aligned}
$$



Although some of the stretch opportunities can lead to outright misrepresentation, others are merely designed to smooth out the bumps in revenue and earnings flow. Individual and institutional shareholders covet business predictability and consistency, so some of the techniques, while not changing long-term business outcomes, are used instead to move events around, leading to an apparently more consistent performance.


Remember that the balance sheet is a snapshot in time that captures the cumulative effects of business activity over a period. This business activity is measured on earnings and cash flow statements. As such, the balance sheet reflects the results of accounting policy and any stretch that may have occurred - that isn't where stretch is initially applied.

## Revenue stretch

Recognition of revenue can be a major factor compromising financial statement quality. In a cash-only business, cash is cash, and thus revenue is revenue. But in the real world of accrual accounting, revenue recognition (at least in theory) follows the business activity, not the receipt of cash. Still, this seems simple: Deliver a product or service and record the sale. Yet it doesn't always happen this way.

There are two major sources of revenue recognition problems. The first involves timing, where revenues for long-term deals and contracts may be recognized prematurely. The second involves customer financing or price adjustments, where a customer receives an incentive or is otherwise enabled to buy a product but revenue is overstated by not recognizing the downside of such incentives.

The following sections describe some of the ways companies can manipulate revenue and revenue timing.

## Contractual revenues, forward sales, service fees

Accounting principles state that revenue can be recognized for substantial performance of delivering a good or a service. Yet cases abound where companies, perhaps selling a three-year forward service agreement with a product, or perhaps an insurance policy, bundle downstream revenue into the original sale.

Software vendors, like MicroStrategy, Inc. and i2 Technologies, have had problems booking revenue on incomplete installation contracts. And some companies have also "sold" future revenue streams from product installations to third parties, inflating current revenues - Xerox got caught doing this in 2001. Likewise, until accounting principles were clarified and standardized, some companies, notably retailers, had issues recognizing revenue with gift cards and other similar instruments.

## Channel stuffing

Manufacturers who distribute through retail or other channels often fall to the temptation to sell as much as they can downstream into the next channel "tier." Computer suppliers would sell tons of equipment to their distributors, often to turn around and reverse the sale with a return or a credit for a price drop somewhere down the line.

Today, some companies don't recognize revenue until the product is "sold through" - that is, sold to an end customer. Other companies will recognize the revenue, but with an appropriate reserve for returns. Look for companies that specifically state this practice in their financial statement notes. Also,
avoid companies with large fiscal year-end revenue jumps matched by weak subsequent quarter performance, unless seasonal factors suggest the pattern is normal.

## Related party revenue

Some companies, most recently Dell Computer, got caught mishandling revenue from closely aligned third parties - or even with sales to subsidiaries or other "controlled" entities. Related party revenue is common in the tech industry or other businesses with strong partner relationships or lots of subsidiaries. Intel pays Dell to advertise its products on Dell products ("Intel Inside,"), but how, and when, is this revenue recognized?

Accounting and SEC rules are pretty clear about recognizing revenue only when a transaction is done at "arms length" - that is, without being controlled in any way by the company recognizing the revenue. And as for the timing of third-party revenues, it should be done only when related costs are booked and timing is appropriate to the transaction. If Intel payments are based on units shipped, Dell shouldn't book Intel product placement revenues until the units ship.

## Creating sales with financing

An increasing number of companies have resorted to financing their customers as a way to win deals, win customers, and bolster revenues. Although this has been common in department store retailing for years through store credit cards, it takes on new meaning when, for example, billions are lent to single customers to buy telecommunications equipment. Lucent Technologies became the unhappy poster child for this sort of activity in the late 1990s.

These sales may turn out not to be real. First, the buyer may go bankrupt, as was common during the dot-com era. In some cases, the sales may be real, but are artificially brought forward, creating gaps in subsequent periods. Investors should look carefully at financial statement notes for evidence of extensive financing programs, and also look at the running "Accounts Receivable" and "Notes Receivable" balances compared to sales. ( $\mathrm{A} / \mathrm{R}$ is another way to finance customer sales.)

How do you detect these issues? It isn't easy. In general, you should pay attention to revenue recognition policies (usually Note 1 of the statements) and unusual increases or bumps in sales, receivables, or allowances against receivables. Accounting clarifications and a stronger imperative toward cleaner reporting (SOX, for example) have diminished these revenue issues somewhat, but there is still plenty of latitude, and judging companies often becomes a matter of understanding their business and trusting their management.


Accountants and investors use the term "cookie jar" to describe little ways and the little places in the accounting framework to set aside revenues during a good period to retrieve during a bad one, all in the interest of making earnings look smoother or more predictable. The four revenue "stretch" techniques can all involve cookie jars, and there are some on the "cost" side, too, as will be discussed in the following section. Cookie jars are usually used to adjust timing, not overall long-term performance.

## Stretching direct costs

Like revenue, management has some tools at its disposal to modify results on the cost side. This is covered in this section as direct production costs for a product or service, and the more easily manipulated expenses and indirect costs in the next section.

## Warranty costs

Warranty costs give another opportunity for management to flex the statements. Typically, a reserve for warranty should be set aside for every product shipped or service completed. But companies can change the amount set aside. This is a favorite "cookie jar," often invisible because most companies don't break out warranty costs in detail.

## Inventory valuation and sales

If you read Chapters 7 and 8 , you may remember LIFO (last in, first out) and FIFO (first in, first out). In Chapter 7, these are discussed in the context of inventory valuation; in Chapter 8, they come up under the topics of cost of goods sold and gross profit. LIFO typically represents the more conservative valuation, particularly in an inflationary environment, because recognized costs are relatively higher. However, LIFO also results in relatively lower inventory valuations.

Value investors should understand inventory valuation policy, normally disclosed in Note 1, particularly where an accounting policy is changing or has been changed. If a company switches from LIFO to FIFO, watch out.

## Stretching expenses

Expenses, or indirect costs, are easier to stretch, because there is such a broad range of expenses, and typically little detail is given on the consolidated statements. Fortunately, this area has received considerable scrutiny, especially options and amortization expenses, so it is less an arena for abuse than in the past.

## Options

Compensating employees with stock options became much more in vogue toward the end of the twentieth century, particularly, but not limited to, the technology space. Why? To recruit and retain better employees without consuming precious cash or diluting earnings. That was the prevailing reason, particularly for startups.

Investors got very upset with this. Not only were companies inflating earnings by not recognizing option expenses, but many a corporate staffer was getting fantastically wealthy on the resulting awards. The proverbial fox was in the chicken coop. Earnings at established companies such as Cisco and Starbucks were inflated some 30 or 40 percent from what they would have been with proper option award accounting.

For a long time, accounting rules only required disclosure - not incorporation into actual statements. So option grants and their theoretical expense were noted somewhere deep in the statements, but not in the results themselves. Finally, in 2004 FASB implemented a revised Statement 123, requiring expensing and prescribing a formula (long a sticking point) for valuing the options. Microsoft famously was the first to implement this policy (not a surprise, as a monopoly, they look for ways to diminish earnings) and other companies soon followed suit.

So now, options can still be abused by greedy or irresponsible management teams, but at least investors will see the results more clearly.

## R\&D and marketing costs

A few companies have been caught deferring certain R\&D and marketing costs into the future. How do they do it? By capitalizing them (that is, by recording them as an asset when incurred, rather than an expense, and then depreciating or amortizing the asset over future years).

Accounting rules are fairly firm, but not rock solid, around the notion that most R\&D expenses should be incurred as they arise due to the uncertain nature of their outcome. There's no way to tell upfront whether an R\&D effort will turn into a marketable product. However, where R\&D is significant as a proportion of total product expense, as with software, portions are allowed to be capitalized. Imagine the wild ride if Microsoft had to report all costs of a software product development in the year it was developed and then record subsequent revenue as nearly pure profit.


Rules also call for expensing intellectual property, except the costs of securing the patents or licenses themselves. But there's an exception in the treatment of intellectual property acquired through purchase of another company. Such patents or licenses can be capitalized as goodwill (often broken out separately) and amortized over time - the rule calls for an "economic viability" test. Financial statement notes may clarify treatment of the largest intellectual property items.

Likewise, marketing costs should all be absorbed in the period incurred, regardless of when the benefit to a marketing campaign may occur. There are some exceptions for direct marketing costs. Abuses in capitalizing expenses have been known to occur, and one of the more famous occurred at America Online in 1996. AOL spent over $\$ 350$ million to distribute installation disks for its latest software release. Whether or not it was good marketing strategy is unclear. But its accounting strategy was to expense only $\$ 120$ million and capitalize the rest as a "marketing asset" to amortize over the next two years. The auditors accepted it, but the SEC didn't, resulting in a stiff fine and painful restatements.

## Depreciation and amortization

Choice of depreciation and amortization methods - and time periods - can influence earnings and balance sheet statements. More aggressive depreciation results in lower earnings and conservative asset valuations, but the pressure to "meet the numbers" on earnings may lead to less aggressive depreciation. Firms have the choice of method (straight line versus accelerated) and time frame (number of years) to manage their financial reporting.

Depreciation and amortization methods are among the most clearly disclosed of financial statement "levers." Note 1 disclosures are complete with both method and time period, although frequently a mix of different methods and time periods is used for different assets. Look for how hard assets are depreciated and how goodwill is amortized.

The value investor should look for conservatism, consistency (as opposed to frequent changes), and common sense (wireless licenses amortized over 40 years probably doesn't make sense because the technology probably won't be around for that long). If a company suddenly switches to longer depreciation schedules without adequate explanation, look out.

## Pension costs and assets

Pension fund accounting can be another source of stretch earnings in a pinch. The details of pension accounting are complex and are wisely left to the CPA community. But companies can modify pension assumptions in ways that can affect net earnings.

Suppose that a plan is targeted to reach a certain funding level in 10 years. Management has diligently set money aside with an assumption of a 7 percent return in order to achieve that long-term goal. Now suppose that management decides that an 8 percent return is more likely. Is the existing balance bigger than it needs to be to meet the obligation? You bet. The plan is said to be overfunded. Some or all of that overfunding can be recognized as income, inflating reported earnings.

## Focus on tangible value

New rules implemented by the Financial Accounting Standard board (FASB) ended the requirement for companies to amortize goodwill incurred by acquisitions. FASB's goal was to simplify accounting and to eliminate a "pooling of interests" accounting bypass that has been in place as an alternative. Companies, however, are now required to re-evaluate the goodwill asset each year and write off portions clearly definable as "impaired." By not amortizing goodwill, short-term earnings may actually increase, particularly for companies such as GE or Cisco that have aggressive acquisitions strategies. While some investors salivate over the prospect, remember that it is meaningless from a cash point of view. There is no true wealth created.

Worse yet, these ethereal assets could be maintained forever - or lead to bigger write-offs some day.
Here as elsewhere, we have to depend on company management to do the right thing, and to do it in today's context of increased scrutiny and SOX-compliant responsibility. And perhaps one should follow value investing patriarch Ben Graham's original advice: Intangibles should be eliminated completely from intrinsic value appraisals. Indeed, it is becoming increasingly common for investment analysts and information portals to focus on net tangible value, a figure in fact available in the Yahoo! Finance portal balance sheet.

Pension information is usually deep in the Notes section, usually Note 10 or higher. These notes have become clearer in recent years, but are still pretty confusing. Check the fair value of pension assets, the projected benefit obligation, and the difference between the two. Look at the assumptions and look for changes in accounting policy, especially those not mandated by FAS (accounting standards) bulletins. Large old-line companies are more susceptible to pension stretch: the IBMs and AT\&Ts of the world. Newer companies use the 401 K approach, where few or no pension assets or obligations are carried directly by the company.

## Write-offs: The big bath

Pundits say, "It's better to ask forgiveness than permission." This statement may play into another fairly old accounting gimmick: write-offs. Bundling large costs into extraordinary write-offs clears the books of bad assets and bad decisions. Why? To increase earnings in the immediate future. Write-offs are an expense, and perhaps should have been included in the list just completed, but this topic is big enough to warrant its own heading.

GAAP is fairly specific in specifying that write-offs must be unusual and nonrecurring. Unusual means not a part of day-to-day business, and nonrecurring means, well, nonrecurring. Still, these terms are subject to interpretation. Are
layoffs, plant closings, and restructurings unusual and nonrecurring? For some companies, yes, but such write-offs became almost annual events for automakers and other smokestack industries. For some companies, the December fourth-quarter write-off announcement became almost as dependable as Santa Claus himself.

Be aware of the reasons for and any regularity in such write-offs. Have they gotten to be a habit? Are they truly a cost of doing business in disguise? If Cisco writes off $\$ 2.5$ billion in unused raw material components, or if H-P writes off $\$ 100$ million to trim staff, that's an event, but who's to say that it won't happen again as technology changes and business cycles continue? Arguably, at least some of that is a normal cost of doing business.


Investors should look carefully at write-offs, especially large ones, to see if they resulted from an obvious or clearly stated strategic shift in the business. If write-offs occur repeatedly or have little in the way of explanation, beware. The write-offs could be ordinary costs of doing business disguised as something special.

## Pro Forma Performance

Beyond accounting stretch, the once-ubiquitous "pro-forma" earnings release, such as the Sun Microsystems example at the beginning of the chapter, gave even more of a black eye to corporate financial reporting and trust. Pro forma reports had become almost a public relations alternative to the classic GAAP earnings statement.

Responding in part to investor and analyst pressure and in part to a fairly loose (to date) compliance environment, companies started using pro forma reporting as a press-friendly reporting alternative. The trend started in 1999 with Yahoo!, Inc. and expanded through the technology industry and occasionally beyond.

Actually, pro forma has been in the accounting vocabulary for a long time. Pro forma statements were originally used as "unofficial" statements designed to project - not report - company performance. Companies planning to go public or merge with another company issued a pro forma set of statements to give an investor a clue to what forward-looking statements may look like.

Today, you may still see some pro forma reports done in parallel with GAAP reports, but they've largely returned to special situations. More likely, you may see a set of "non-GAAP" numbers alongside the GAAP statements, with a clear explanation of the differences. Like most of today's financial reporting trends, this one is favorable.

## "Everything but bad stuff"

Pro forma reporting allowed companies to spin their business pretty much as they pleased. They include certain things, but leave out others they consider irrelevant to assessing performance. Former SEC Chief Accountant Lynn Turner called it "EBS," or "Everything but Bad Stuff," reporting. From your perspective as a value investor, pro forma or other non-GAAP reporting not only undermines trust; it also makes it difficult to compare one company to another.


Pro forma is really an extension of the EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) reporting concept made popular in the 1980s (see Chapter 8).

Although EBITDA made numbers look better than they were by excluding financing costs and asset recovery, at least the application of EBITDA was consistent from one company to the next.

Companies routinely omitted option costs, investment gains and losses, asset impairment or write-downs, goodwill amortization, and other "noncash" items. In that these expenses are noncash, value investors can wink and turn their heads a little - for a while. But some very cash-real expenses, such as interest expense, get written out of the pro forma. EBITDA for most businesses is more useful as an internal management decision tool than as an investing tool, especially for long-term investors.


Companies must provide GAAP-compliant numbers in releases and submit full GAAP-compliant reports to the SEC. So if a company provides non-GAAP statements, which reflects how the company wants to see itself, fine. But make sure to read the explanation of why the non-GAAP and GAAP statements are different - and try to understand why the company wants to maintain that difference.

## What Should a Value Investor Look For?

Those of you who had an accounting course or two somewhere along the way are probably now recalling why you steered clear of a public accounting career. This stuff is complicated.

And it isn't reasonable, practical, or even prudent to examine every financial statement in enough detail to ferret out the real story. It's literally impossible if you're trying to choose from among 2,000 or 3,000 companies to invest in.

## The watchdogs are looking across borders

For the most part, the SEC, FASB, AICPA, and other influential agencies have brought on a far greater standardization and transparency in financial reporting as compared to the turn of the millennium. These organizations should be applauded for their efforts, because even though companies can always find loopholes, they usually occur within a well-established set of rules. It isn't the "wild West" like it was back then.

While some initiatives are still underway to bring more clarity to domestic financial reporting, the emphasis has shifted to the international sphere. Indeed, the world is flat, and investors now more than ever are guided to make overseas investments - or even compelled to do it as the funds they own are doing it.
Trouble is, accounting standards can be different in every country. Who's to say that Finland's Nokia is more or less profitable than Motorola?

It depends on how their accountants handle many of the issues just discussed.

Larger companies usually file a U.S. 10K more or less by U.S. standards, to grade on major U.S. exchanges. But the cost of SOX compliance can be heavy for those companies, and many smaller ones simply don't choose to comply, and thus don't trade in the U.S. Are they bad companies? No, not necessarily; just different.
Recognizing this issue, the IASB (International Accounting Standards Board) is working closely with U.S. and international counterparts to standardize reporting across borders into a set of standards known as IFRS, or International Financial Reporting Standards. Recently, all companies listed on EU (European Union) stock exchanges have become IFRS-compliant.
Spoken language may never be the same across different countries, but perhaps the accounting language will be.

## The "cake test"

Some of you may be familiar with the technique of sticking a toothpick into a cake to determine whether it's done. (For those of you who haven't tried this, if you stick a toothpick in a cake and it comes out clean, it's done.) Try it a few times in different parts of the cake to verify your conclusion. If you don't believe it, or don't bake, then call your mother. She'd be glad to hear from you.

Especially for time-constrained investors, the "cake test" approach makes sense to review financial statements. Poke here, poke there, read some of the notes, get a flavor for financial reporting quality. If you're Warren Buffett, ready to commit $\$ 2$ billion to a company, you may want to take a closer look. But for most of us, the following will help.

## A checklist

The following are a few places to test when considering companies as investments.

## Earnings consistent with cash flow

These two things won't be equal but should march side by side. If earnings consistently grow faster than cash flow, that's a bad sign.

## Growing current assets other than cash

Watch for increasing inventories or accounts receivable, particularly in proportion to sales.

## Straight-line depreciation and amortization, long time periods

Asset recovery may be delayed through deferring depreciation and amortization in order to boost earnings. Understand what practice the company uses, and whether it's consistent with others in the industry - and common sense.

## Understand asset impairments

Note which assets are "impaired" or on the block for possible write-downs, and understand why.

## LIFO versus FIFO

LIFO is a more conservative approach to measuring cost of goods sold and inventory levels, as most of the recent (and more expensive) stock is assumed to be consumed first. Note that this may not be true in every industry.

## Reserves against bad debts change dramatically

Watch for bad debt and other reserves as a sign of deterioration in current asset quality.

## Accounting policies change

Note 1 should be simple and straightforward. Look at revenue and cost recognition. Complex, unexplained changes may spell trouble.

## 10-K report is longer than 100 pages

Something complex is going on. Opportunity knocks for accounting fiction and other things that are hard to understand.

## Persistent, poorly explained write-offs

If the write-offs are large or repetitive, try to understand why.

## Big gap between pro forma and GAAP

Understand why and what the company is trying to tell you by reporting both.

## Understand where the revenues come from - if the company tells you

What are the major revenue "segments"? Does the company have a few big customers? Who are they? Are their business fundamentals sound? Does the company have channel partners? What are their selling arrangements with those partners? Do they provide financing? What are the other incentives? Are services broken out separately?

## Stay with those who explain best

Better corporate financial statements explain changes in their business and changes in their accounting policies. It's worth reading their explanations carefully. Remember, companies that explain things better are probably better investments.

## Chapter 10

# On Your Ratio Dial: Using Ratios to Understand Financial Statements 

## In This Chapter

$>$ Identifying the strengths and shortcomings of ratio analysis
$>$ Understanding different types of ratios and what they mean

- Interpreting specific ratios
- Using ratio analysis in value investing

As The Motley Fool founders David and Tom Gardner put it, "Gentlemen, start your calculators!" As you gaze through the dense forest of numbers in most financial statements, that lost-in-the-woods feeling is almost inevitable. After all, what do the numbers tell you? Which ones are important? How do you take away any meaning from them? And quickly, because you don't have all day to address every number for every business you may look at.

Are accounts receivable in line or not? Is the company's inventory scaled properly to the size of the business? What about fixed assets, debt, and profitability? Is the company using capital efficiently? And does its stock price make sense? How do you know?

Applying ratios to the numbers is like using a pair of binoculars to bring where you're going into clearer focus. Ratios illustrate the relationship between two or more numbers, giving a sense of scale and context. For example, Simpson Manufacturing's reported $\$ 217.6$ million in inventory means nothing until measured against its $\$ 863.2$ million in 2006 sales. The inventory-to-sales ratio of 0.252 puts company raw data into perspective, tells a story, and provides a standard for comparison with other companies and the industry. And it tells the trends - favorable or unfavorable. The 2005 ratio of .214 suggests that the amount of inventory required to support sales rose substantially in 2006, which is not a good sign.

Inventory-to-sales is one of dozens of "standard" ratios. Each ratio by itself provides a clue into some facet of business performance. Taken together, ratios provide a clearer "total" picture of a company for the investor to interpret.

## Ratio-nal Analysis

Before going too far with this discussion, it's important to understand the benefits and limitations of ratios. Ratios are great tools and bring understanding to key parts of the financial statements. But realize that they are just tools, not a substitute for practical judgment. Ratios won't automate your stock-picking decisions - they are a step along the way, not an "end-all" analysis tool.

With that caution in mind, let's examine the types of ratios, and, in a big-picture sense, how they're used in practice.

## Types of ratios

Ratios can be classified into one of four categories largely defined by what you're testing for. These categories are covered in the following sections.

## Asset productivity ratios

In Chapter 7, assets are defined as resources used in a business to produce a profit, or return. This group of ratios describes how effectively those assets are deployed or utilized. Some analysts call these efficiency or asset management ratios. How much inventory, accounts receivable, or fixed asset investment does it take to support a given volume of business? Are these assets being managed effectively with proper controls?

## Financial strength ratios

Company resources are provided either by company owners (shareholders) or by creditors (debt holders or holders of other obligations). These ratios measure to what extent company resources are provided by sources other than the owners. Sometimes called liquidity or debt management ratios, these ratios are also used to assess the company's ability to pay its creditors and how vulnerable it may be to debt problems and high interest costs. They also describe financial or capital structure - that is, how financially leveraged a company may be.

## Profitability ratios

How profitable is the company? Sure, there may be a lot of business activity. But how much profit is produced? Per dollar sold? Per dollar invested? Some analysts refer to these ratios as management effectiveness ratios, as they indicate management's overall success in generating returns for the enterprise.

## Valuation ratios

The first three ratio families examine internal business fundamentals. With valuation the stock price enters the picture. Valuation ratios, as the name implies, relate a company's stock price to its performance. The ubiquitous price to earnings ( $\mathrm{P} / \mathrm{E}$ ) ratio shows up here, as do its siblings price to sales $(\mathrm{P} / \mathrm{S})$, price to book $(\mathrm{P} / \mathrm{B})$, and a few others.

## Ratio information sources

Anybody with an annual report and a calculator can calculate and analyze ratios. Almost all ratios take a pair of numbers from a company's balance sheet, earnings statement, or both.

Ratio analysis can be cumbersome and time-consuming, particularly when you're looking at a group of companies or an industry. Services that "do" the numbers, and particularly the comparisons, for you are hard to find, especially for free. Comparative industry ratio data is routinely available to professional financial and credit analysts, but they pay hefty subscription fees to get it.

Here are some ratio data and comparison sources:
$\checkmark$ Free: Yahoo! Finance and similar investing portals provide some ratios and limited comparison tools. The Yahoo! Finance "Key Statistics" page shows several ratios, mainly valuation ratios.
$\checkmark$ For a modest fee: At the time of this writing, there is still little available for the ratio-hungry investor to buy. One source is VentureLine (www. ventureline. com), where, for $\$ 9.95$, you can purchase a fairly complete rundown for a particular industry, such as "electronic computers." This product provides five years of data, making trend analysis practical. While $\$ 9.95$ per industry can add up if you invest in a lot of industries, this tool is worth considering for investors doing a lot of ratio analysis.
$\checkmark$ More expensive: Value Line Investment Survey (www.valueline.com) offers a window to many key ratios. Value Line doesn't present a lot or ratios, but does give a lot of history, which can be better. The basic Value Line subscription costs $\$ 598.00$ per year but offers a lot beyond ratio analysis. (See Chapter 5.)

If you have access to Dun \& Bradstreet or Standard \& Poor's industry financial comparisons, don't hesitate to use these rich, complete, and up-to-date resources as well. They may be out of reach of the average investor due to cost. If you work with a broker or financial advisor, you may get access to some of these services for free.

## Using ratios in practice

What does a value investor look for when analyzing ratios?
Intrinsic meaning: What does the ratio tell you? If the debt-to-equity ratio is 3 to 1 , the company has a lot of debt. If the inventory-to-sales ratio is greater than 1 , the company turns its inventory less than once per year. A P/E ratio of 50 implies a 2 percent return on invested capital (\$1 returned per $\$ 50$ invested). These numbers tell you something without looking at any comparisons or trends.

Want an early test for determining whether a ratio is good, bad, or ugly? Just think of the company's ratio as it would apply to your personal finances. A household with 3 times as much debt as equity is in dire straits, as is a household that turns over inventory (say, groceries) only once a year, as is a household that achieves only a 2 percent return on its investments, or a household that's owed a third of its annual income. You can't apply this test to all ratios, but where common sense tells you something, use it!
$\checkmark$ Comparisons: For many analysts, and especially credit analysts, who are trying to get a picture of a company's health, comparative analysis is the most important use of ratios. A ratio acquires more meaning when it's compared to direct competitors, the company's industry, or much broader standards, like the S\&P 500. A profitability measure, such as gross profit margin, reported at 25 percent tells more when direct competitors are at 35 percent plus. Analysts make similar comparisons with asset utilization, financial strength, and valuation ratios.
When doing comparisons, be in tune with what you're comparing. Companies can be in many different businesses at once. It's tough to find pure plays in any industry. Realize that Dell Computer is almost 100 percent in the PC business, while Hewlett-Packard derives only 25 percent of revenues from PCs. A company mostly in the health insurance business may be difficult to compare to a company that sells mostly life insurance. Borders Group and Amazon, while classified in the same industry, have very different business structures. While the resulting ratio differences may in part be valid, they also may lead you to believe that an apple is bad when it really isn't. It's important to compare apples to apples when comparing different companies.
$\checkmark$ Consistency: The hallmark of good management, as well as of an attractive long-term investment, is the consistency of results delivered. If profit margins are consistent and changing at a consistent rate, the company is predictable - and most likely in control of its markets. Inconsistent ratios reflect on inconsistent management, competitive struggles, and cyclical industries, all of which diminish a company's intrinsic value.
$\checkmark$ Trends: Better than consistency alone is consistency with a favorable trend. Growing profit margins, return on equity, asset utilization, and financial strength are all very desirable, particularly if valuation ratios ( $\mathrm{P} / \mathrm{E}$ and so on) haven't kept pace. Value investors who study trends carefully have information that most investors don't have.

## What's on the Ratio Dial

This section details the important ratios in each category, or "type" identified earlier. We offer examples from the Simpson Manufacturing 2006 financial statements appearing in Chapters 6 through 8, so you'll want to refer to these exhibits as you read what follows.

Note: When using items from the earnings statement in the numerator or denominator of a ratio, the figure used typically represents either the previous fiscal year or the trailing 12 months (TTM) of business activity. Balance sheet items come from the most recently reported period. The terms sales and revenue are used interchangeably.

## Asset productivity ratios

Asset productivity ratios describe how effectively business assets are deployed. These ratios typically look at sales dollars generated per unit of resource. Resources can include accounts receivable, inventory, fixed assets, and occasionally other tangible assets. Similar analyses may also be done not just for financial assets but also for operational assets like square footage, number of employees, number of facilities, and airplane seat miles.

## Receivable turnover

Receivable turnover measures the size of unpaid customer commitments to a company. Specifically, it measures how many times a year this asset turns over; that is, is cleared out and replaced by similar obligations from other customers. Rapid turnover, not lingering old debts, is what you want to see. Here's the formula:

Receivables turnover = sales $\$ \div$ accounts receivable $\$$
For Simpson $\$ 863.2$ million $\div \$ 107.2$ million $=8.1$ (from Figure 7-1), a relatively weak turnover for most businesses. Another way to look at it: For every dollar invested in receivables, about $\$ 8$ comes back to the company in sales.

Accounts receivable is a resource at a company's disposal like anything else and must be paid for, essentially, by sacrificing cash that otherwise would be available to fund some other part of the business. A company selling direct to consumers with cash sales or bank credit card sales will have lower receivables turnover than an industrial supplier. Watch for consistency and compliance with normal billing policy for the industry.

## Average collection period (or days' sales in receivables)

A slightly different way of looking at receivables is to show the average number of days that a given receivable dollar lives on the books. To calculate, divide the receivable turnover ratio (from the preceding section) into 360 to put it on a daily scale:

Average collection period $=360 \div$ receivables turnover
So for Simpson, $360 \div 8.1$ gives 44.4 days of life for the average receivable dollar on the books. For an industrial supplier with a standard 30-day billing cycle, a model that Simpson would normally fit, you'd expect 30 days or less worth of sales in receivables, as most customer accounts would be billed in "net 30 " due date terms. These figures suggest something may be amiss with Simpson - or that the company may have different collection policies than industry norms. Investors would want to put a "watch" on this figure to see if it gets better or worse.


If, based on industry comparisons or stated billing cycles, the collection period is higher than it should be (or growing), watch out. The company may be losing control of its collections or selling to customers with questionable credit. This ratio is also sometimes called days' sales in receivables.

## Inventory turnover

Inventory turnover works like receivables turnover, only you plug in balance sheet inventory in place of receivables. Here's the formula:

$$
\text { Inventory turnover = sales } \div \text { inventory } \$
$$

As with receivable turnover, the higher the number the better. High numbers indicate that raw materials, works in progress, and finished goods are flying onto and off of shelves rapidly. Less dust collects on less stuff in fewer warehouses, and less cash is tied up in inventory. Also, there's less risk of obsolescence and write-offs, and in many businesses, less risk of markdowns to clear inventory.

Simpson Manufacturing had $\$ 863.2$ million in sales on $\$ 217.6$ million in inventory for an inventory turnover ratio of about 4. Again, a yellow flag may go up, because as we discuss next, it implies that inventory stays on the shelves for an average of three months - not too good for a company that sells most of its product into a sales channel rather than directly.


Deciphering asset productivity ratios means knowing something about the business a company operates in. If bookseller Borders Group has a large inventory for its sales, it's helpful to know that in the bookselling business, shelf inventory is fully returnable to publishers, mitigating inventory risk and providing reader selection - all justifying higher levels of inventory. Know thy industry!

We saw that the average Simpson product sits on the shelf for three months, ( $360 \div 4$ gives 90 days, or three months). "Days sales in inventory" or "average inventory shelf life" or "months of supply" measures are used extensively as internal business measures, especially in manufacturing and distributions businesses, to help put inventory levels in perspective.

## Fixed asset turnover

This ratio is straightforward:
Fixed asset turnover = sales \$ $\div$ fixed asset $\$$
Obviously, all else being equal, the company that produces the most sales or revenue per dollar of fixed assets wins.

## Total asset turnover

Again, straightforward:
Total asset turnover $=-$ sales $\$ \div$ total asset $\$$
Here we get a bigger picture of asset productivity as measured by the generation of sales. For the first time, intangible assets are included. Again, industry norms form the benchmark. Comparing a railroad to a software company probably doesn't make sense.

## Nonfinancial productivity ratios

Operational, or capacity utilization ratios, can be quite interesting, yet sometimes hard to find or apply. The raw data is often not available in company statements or published reports. Calculated ratios are even harder to find, although Value Line and other analysis services make it a point to present certain nonfinancial operating data. These measures vary by industry, but here are some examples:

Sales per employee: This ratio tells you how productive a company is in regard to investments in human resources. We think it's worth a look in almost all industries, particularly those that are labor intensive, such as retail, transportation, and other service industries.
Sales per square foot: This ratio is especially important for retail and similar businesses where occupancy investments are large and sales can be tied directly to them.

Average selling price (ASP): Many financial reports don't present the number of units sold because they don't have to - and they want to keep selling prices secret. But sometimes this data is available (for example, from Boeing and other very-large-ticket manufacturers), and it can be quite revealing as to the direction of a business.
$\checkmark$ Industry specials: Airlines and airline investors pay close attention to seat miles and revenues per seat mile flown. Railroads may look at revenue per track mile or car mile. Other service businesses such as banks, mail order retail, and such may look at sales or revenue per customer.

Sometimes important information can surface in relatively easy-to-find places. Employee count figures appear on the Yahoo! Finance "Competitor Comparison" page, and industry-specific figures such as airline seat-miles flown can appear in trade-specific publications or Web sites. Seat-miles flown, in fact, can be found on the U.S. Department of Transportation Bureau of Transportation Statistics Web sites (www.bts.gov), along with lots of comparable information for airlines and other transport businesses.

## Financial strength ratios

This set of ratios goes by many names (liquidity, solvency, financial leverage), but they all point to the same thing: What is a business's financial strength and position? What is its capital structure? A balance sheet oriented value investor looks closely to make sure that the company will be around tomorrow (as many investors did in the 1930s). A value investor first looks at financial strength ratios for obvious danger, then bases the bulk of his intrinsic value analysis on business-strength and market-strength measures like productivity and profitability.

## Current and "quick" ratios

These commonly used liquidity ratios help evaluate a company's ability to pay its short-term obligations. Here's the formula:

Current ratio $=$ current assets $\div$ current liabilities
The current ratio includes all current assets, but since inventory is often difficult to turn into cash, at least for a reasonable price, many analysts remove it from the equation to arrive at a quick ratio. The quick ratio emphasizes coverage assets quickly convertible into cash:

$$
\text { Quick ratio }=(\text { current assets }- \text { inventory }) \div \text { current liabilities }
$$

Another ratio, cash to debt, is often used. The calculation is self-explanatory. It takes a still more conservative view of coverage assets (cash only) and a clearer view of what needs to be covered (total debt, current and long-term portions).

The traditional thinking is that the higher the ratio, the better off the company. Greater than $2: 1$ for the current ratio or $1: 1$ for the quick ratio is good and safe; less than $2: 1$ or 1:1 is a sign of impending problems meeting obligations. Simpson, for example, has a healthy current ratio of almost 6 (\$479.3 million $\div \$ 80.3$ million). The "quick" ratio of 3.25 [( $\$ 479.3$ million $-\$ 217.6$ million) $\div \$ 80.3$ million] is also not bad. If some unknown force caused Simpson's current liabilities to be due and payable immediately, they'd have plenty of coverage. Again, it's helpful to think of your own personal financial situation as a comparison.


More recent thinking, exemplified by the strong historical performance of Dell Computer, doesn't always hold liquidity in the highest esteem. Dell became famous for tying up as little cash as possible in current assets and instead relying on its suppliers to deliver "just in time." So current asset totals were small, while current liabilities were moderately higher, and some ratios came in under 1 . But really, Dell was just living off of cash invested by suppliers in their receivables (Dell's payables). Living off the assets of others is a good technique - if you can get away with it.


The value investor's general rules for liquidity ratios: First, compare liquidity to industry norms and watch for unhealthy trends (as with other ratios). Second, and important, liquidity ratios don't tell you so much what to buy as what not to buy.

## Debt to equity and debt to assets

Sometimes also called solvency, or leverage, ratios, this set measures what portion of a firm's resources, or assets, are provided by the owners versus provided by others.

Financial leverage can be a good thing - to a point, and as long as things are going well. If you put up $\$ 1$, borrow $\$ 9$, and invest the $\$ 10$ total to achieve a 10 percent return, your profit is $\$ 1$. Your return on equity is 100 percent (your $\$ 1$ profit divided by the $\$ 1$ invested). But what if you lose $\$ 2$ ? Your creditor still wants his or her $\$ 9$ back and is entitled to it. You lose your entire investment and then some. On top of that, your creditor demands (and is entitled to) a fixed level of interest payments, which is a constant expense to your enterprise regardless of results. Leverage is thus a double-edged sword.

Too much long-term debt costs money, increases risk, and can place restrictions on management in the form of restrictive lender covenants governing what a company can and can't do, minimum performance levels, and so on. The two most common ratios used to assess solvency and leverage are debt to equity and debt to total assets. Here's the formula for debt to equity:

$$
\text { Debt to equity = total debt } \div \text { owner's equity }
$$

Note that current liabilities, such as accounts payable, typically are not included. From this point of view, Simpson has almost no long-term debt; it is very solvent and not highly leveraged with a microscopic debt-to-equity ratio of 0.0005 ( $\$ 338$ thousand $\div \$ 652.9$ million).

Here's the formula for debt to assets:
Debt to total assets $=$ total debt $\div$ total assets
Making a sweeping statement about what these ratios should be for a given company is difficult. When a company has more debt than equity (debt to equity $>1$ or debt to total assets $>0.5$ ), yellow flags fly. But again, industry comparisons are important. Economic value achieved should exceed the cost and risk incurred with the debt. Sounds good in theory, but precise appraisal can be complex. As with liquidity measures, solvency measures probably deliver a stronger signal for what not to buy than what to buy.

## Cash flow ratios

Because cash is really the lifeblood of a business, financial strength assessments typically look at cash and cash flow ratios. But there's a hidden agenda behind these ratios: to assess earnings quality.

## Overall cash flow ratio

This powerful ratio tells whether a business is generating enough cash from its business to sustain itself, grow, and return capital to its owners. Here's the formula:

Overall cash flow ratio = cash inflow from operations $\div$ (investing cash outflows + financing cash outflows)

Operating cash flows represent, as the term implies, cash generated by normal business operations. They should be positive. If not, the company isn't generating enough cash to cover current expenses, let alone replace assets. Investing cash flows signify the acquisition or disposal of physical assets and are usually negative, assuming that the company is investing in its business or replacing fixed assets. Financing cash flows include proceeds from financing transactions, such as the sale of stock or debt (bonds). They can be either negative or positive, depending on current financing needs and strategy. See Chapter 8 for details.

If the overall cash flow ratio is greater than 1 , the company is generating enough cash internally to cover business needs. If it's less than 1 , the company is going to capital markets or is selling assets to keep afloat.

Simpson is cash flow positive, with ( + ) $\$ 99.1$ million in operating cash inflow and $\$(21.5)$ million in financing cash oufflow (careful, the signs are tricky), and $\$(60.5)$ million in investing cash outflow. The resulting 1.21 ratio tells you that
things are generally okay. Further, the excess of operating cash flow over investing cash flow ( $\$ 99.1$ million vs. $\$ 60.5$ million) tells you that the basic business is generating cash, although care should be taken to make sure that's the case over subsequent periods, avoiding distortions from large capital outlays or special items in a single year.

The numbers show that Simpson invested $\$ 60.5$ million in its business, some of that in working capital items like receivables and inventory, and used some cash to pay dividends ( $\$ 15.4$ million) and buy back stock ( $\$ 8.2$ million on a net basis, that is, net of shares issued for employee benefits, and so on).

Overall, cash appears well managed, and Simpson is living within its means cash-wise and is returning some cash to shareholders. Refer to the summary (Figure 8-2) and detail (Figure 6-3) statements to see these dynamics more clearly.

## Cash flow and earnings

Now the topic switches from cash management to earnings quality. Chapters 7, 8 , and 9 mention the idea that different accounting methods can produce different results on earnings statements. Earnings can be managed up or down, depending on depreciation, amortization, noncash write-offs, revenue recognition, and so on. Cash flow comparisons with earnings can be used as a quick quality test to see how noncash accounting transactions and "stretch" may have gone into a set of statements.

It's best when cash flows march in step with, or exceed, earnings. If earnings increase without a corresponding increase in cash flow, earnings quality comes into question. The following is a base measure:

Cash flow to earnings = cash flow from operations $\div$ net earnings


Because depreciation and other noncash amortizations vary by industry, it's hard to hang a specific goal on this measure. Consistency over time is good. Favorable industry comparisons also are good. Further, it's good when period-to-period earnings increases are accompanied by corresponding cash flow increases.

## Profitability ratios

Asset productivity and financial strength reflect essential business basics important, but neither alone can point you to good companies and good investments. Profitability ratios form a core set of bottom-line ratios crucial to all investment analysis.

This section looks at four profitability ratios. Each is typically based on net earnings, but variations will occasionally use cash flow or operating earnings.

Typically, items related to extraordinary charges or discontinued operations should be excluded when calculating these ratios. If you're using figures from a financial portal or calculations from a screener or other financial information package, check to make sure that figures exclude extraordinary items. You may have to dig into the company's own issued financial statements.

## Return on sales

This ratio is just as it sounds:

$$
\text { Return on sales }=\text { net earnings } \div \text { sales }
$$

Return on sales (ROS) tells you how much profit a firm generated per dollar of sales. This figure is better known as the net profit margin. Closely related is gross margin, which is covered in Chapter 8:

$$
\text { Gross margin }=(\text { sales }- \text { cost of goods sold }) \div \text { sales }
$$

Obviously, gross margin is a key driver of return on sales and is the most strongly connected to the organization's business strength and operational effectiveness. Some analysts also look at operating margin:

Operating margin $=($ sales - cost of goods sold - operating expenses $) \div$ sales
where SG\&A (selling, general, and administrative) expenses, marketing, and asset recovery (depreciation) and special amortizations are factored in.

For Simpson, you see a return on sales, or net profit margin, of 11.8 percent ( $\$ 102.5$ million net profit $\div \$ 863.2$ million in sales), healthy for almost any industry. Gross margin is 40 percent ( $\$ \$ 345.3$ million $\div \$ 863.2$ million), and operating margin is 18.7 percent ( $\$ 161.4$ million operating profit $\div \$ 863.2$ million sales). All figures are healthy for the type of business and are steady to slightly growing, all good signs.

## Return on assets

How much profit is generated per resource dollar invested? Return on assets, or ROA, provides the answer:

$$
\text { Return on assets }=\text { net earnings } \div \text { total assets }
$$

This measure is especially important in asset-intensive industries, such as retail, semiconductor manufacturing, and basic manufacturing. Chapter 13 takes a closer look at ROA.

For Simpson, ROA is $\$ 102.5$ million $\div \$ 735.3$ million, or 13.9 percent. On the surface that's a pretty good number, but it would have to be checked against other manufacturers, especially in the building industry.

## Return on equity

Return on equity, or ROE, is one of the more important bottom-line ratios in the value investor's repertoire. Again, Chapter 13 explains more about why and how ROE is used as a strategic performance measure. Here's the formula:

Return on equity (ROE) = net earnings $\div$ owner's equity
ROE is the true measure of how much a company returns to its owners, the shareholders. It is the bottom-line result of other factors, including asset productivity, financial structure, and top-line profitability, as is shown in Chapter 13. ROE is important as an opportunity benchmark. What else could an investor invest in to get a better return? Again, consistency, trends, and comparisons are critical.

## Return on invested capital

Debt, while raising ROE in good times, also can lead to financial disaster. As a result, many investors instead look at return on invested capital (ROIC), measuring profit as a percentage of combined owner's equity and debt investments. This measure is sometimes called return on total capital, or "ROTC." Here's the formula:

Return on invested capital (ROIC) $=$ net earnings $\div$ (owner's equity + long-term debt)

Frequently, you see ROE and ROIC side by side in ratio charts and discussions. Sustained ROE of 20 percent or more is considered very good. ROIC will be lower, because now debt is included in the denominator. But for many investors it is a truer measure of how much the company is really earning per capital dollar invested.

Notably, because Simpson has almost no long-term debt, ROE and ROIC are almost identical. See Chapters 13 and 16 for more on ROE/ROIC.

## Valuation ratios

The ratios presented so far are aimed at appraising a company's performance to get a better understanding of its intrinsic value. If a business were an orchestra, productivity, financial structure, and profitability would be sections like brass, woodwinds, and strings. The total sound produced depends not just on individual sounds made by individual instruments (ratios) but also how they work together to produce music.

Now here's the critical question: As a music buff, how much would you pay to listen to it? That's the question that valuation ratios try to answer. How much would you pay (and how much are others paying) for tickets to this concert?

## When in doubt, should you average?

Occasionally, you see a variation in the ROE and sometimes ROA formulas. Because these ratios use recent snapshot balance sheet items in the denominator, some analysts feel that the most accurate financial picture is obtained by adding year-end and year-beginning equity or asset values and dividing by 2 . Thus ROE would be
ROE $=$ net earnings $\div[($ beginning equity + ending equity) $\div 2$ ]

Many information sources and services use the averaged formula If you use a data source or service to acquire these figures, it's best to understand how your source calculates the figures. Most importantly, be consistent when evaluating different investments.

Here, finally, the stock price enters the stage. And now finally the most popular ratio of all, the one seen in the newspaper, heard about on talk shows, found in all those beginning books on investing, makes its appearance: the price to earnings ( $\mathrm{P} / \mathrm{E}$ ) ratio. Alongside $\mathrm{P} / \mathrm{E}$, other valuation ratios including $\mathrm{P} / \mathrm{S}, \mathrm{P} / \mathrm{B}$, and a couple of boutique $\mathrm{P} / \mathrm{E}$ variations enter the mix.

## Price to earnings

Price to earnings $(\mathrm{P} / \mathrm{E})$ is just what it sounds like: the ratio of a price at a point in time to net earnings in a period, usually the trailing 12 months (TTM). Here's the formula:

Price to earnings $(\mathrm{P} / \mathrm{E})=$ stock price $\div$ net earnings per share
A high P/E, say 20 or higher, indicates a relatively high valuation; a low P/E, say 15 or less, indicates a relatively low or more conservative one. Most investors are probably familiar with $\mathrm{P} / \mathrm{E}$, so the calculation doesn't need to be illustrated here. Rather, it makes sense to share a couple of useful derivatives: earnings to price and price/earnings to growth (PEG), both of which bring greater understanding to the base $\mathrm{P} / \mathrm{E}$ measure. Chapter 16 also explores P/E in greater detail.

## Earnings to price

Earnings to price is simply the reciprocal of $\mathrm{P} / \mathrm{E}$, or 1 divided by the $\mathrm{P} / \mathrm{E}$. Why is this important? Earnings to price is the functional equivalent of a stock's yield, comparable to an interest rate on a fixed income investment. Because we're talking earnings and not dividends, this yield doesn't usually come your way in the form of a check, but it's useful just the same to determine how much return your dollar paid for a share is generating. Many people call this figure earnings yield.

Take Simpson, for example: 17.6 was a recent P/E based on a share price of $\$ 33$ and TTM earnings of 1.87 . Earnings yield would thus be $1 / 17.6$, or 5.7 percent. What's the significance? This investment could be compared to a long-term Treasury security (today yielding about 4.5 percent) as a prospective investment. Which investment is better? An investment in Simpson returns more, and, although riskier, it affords the opportunity for gain through growth. The difference in earnings yield illustrates the basic risk/return tradeoff between investing in corporate equities versus safe fixed-income Treasuries.

## Pricelearnings to growth

You still don't know whether Simpson's P/E ratio of 17.6 is attractive or compelling. Long-time tech high-flyer Cisco Systems is at 27.4 , while banking stalwart Bank of America is at 10 . Why the difference?

The primary reason is growth. Investors pay higher P/Es for companies with greater growth prospects. Greater growth prospects mean greater earnings and greater earnings yields sooner. This concept is explored further as intrinsic value calculations are examined in Chapter 12.

So when comparing businesses, one popular way to "normalize" P/Es is to compare them to their respective company's growth rate. From this comparison, you get a ratio known as price/earnings to growth, or PEG:

$$
\text { Price/earnings to growth }(\mathrm{PEG})=(\mathrm{P} / \mathrm{E}) \div \text { earnings growth rate }
$$

If Cisco has an earnings growth rate of 25 percent, while Simpson's is 10 percent and Bank of America's is 5 percent, then PEG is $27.4 \div 25$ or 1.1 for Cisco, $17.6 \div 10$ or 1.76 for Simpson, and $10 \div 5$ or 2 for Bank of America. Now if you're confident in the sustainability of the growth rates, you'd pick Cisco as the best investment, because its $\mathrm{P} / \mathrm{E}$ is modest compared to its growth rate.


So, the lower the PEG, the better. But if the low PEG is driven by high growth rates, you'd better be confident in the growth rate assumption. Nothing falls faster than a growth stock that suddenly stops growing. For years, Starbucks had been a high $\mathrm{P} / \mathrm{E}$ and high growth story, with P/E ratios exceeding 30 and growth rates exceeding 20 percent. When the growth rate slowed just a bit in early 2007, the stock lost a third of its value.


Projecting growth rates can be tricky, and for that reason, value investors tend to shy away from stocks where growth appears temporary or hard to justify long term. What rate should you use? What the company has already achieved? What the analysts project it to do? Over what period? When will the growth rate run into the law-of-large-numbers wall? (See Chapter 4.) What growth rate did those Krispy Kreme investors use in the 2000-2004 period? Most of them ended up with a sticky mess. The big question, of course, in picking Cisco as the "best investment," is the sustainability of the growth
rate. Simpson, while trailing a bit, may be a safer and better long-term investment. Upsong: It's okay to assume a high growth rate, so long as it is sustainable growth, based on sustainable business and marketplace fundamentals.

## Price to sales

Per dollar of shareholder value, how much business does this company generate? Price to sales $(\mathrm{P} / \mathrm{S})$ is a straightforward way to answer this question. Here's the formula:

Price to sales $(\mathrm{P} / \mathrm{S})=$ stock price (total market cap) $\div$ total sales (revenues)
$\mathrm{P} / \mathrm{S}$ is a common-sense ratio. The lower the better, although there's no specific rule or normalizing factor like growth. Somewhere around 1.0 is usually considered good. 2.0 isn't out of hand, but the business had better grow consistently into its valuation. $\mathrm{P} / \mathrm{S}$ can be a way to filter out unworthy candidates. At one time, Cisco's P/S approached 20 (while its P/E approached 100, already a trouble sign). Cisco still has an aggressive $\mathrm{P} / \mathrm{S}$ ratio of 5.6. Simpson is much more conservative at 1.9 .

Don't read too much into the raw " $\mathrm{P} / \mathrm{S}$ " number, especially when comparing companies in different industries. A company selling big-ticket items may have a very low $\mathrm{P} / \mathrm{S}$ ratio. Ford Motor is an example at 0.11 . But low margins and high expenses reduce the profitability of those sales; Cisco, on the other hand, has much higher margins. Remember - compare apples to apples, and understand the business beyond just the top or bottom line.

## Price to book

The price to book $(\mathrm{P} / \mathrm{B})$ ratio is getting varying amounts of attention from investors in different sectors. Here's the formula:

Price to book $(\mathrm{P} / \mathrm{B})=$ stock price (total market cap) : book value
Chapter 7 explains that book value consists of the accounting value of assets less (real) liabilities - sort of an accounting net worth or owner's equity of a corporation. This figure has greater meaning in financial services industries, where most assets are actual dollars, not factories, inventories, goodwill, and other hard-to-value items. Some book value measures include intangible assets, and others exclude them.

Value investors use $\mathrm{P} / \mathrm{B}$ a bit like $\mathrm{P} / \mathrm{S}$ : as a "smell test" for obvious lack of value. $\mathrm{A} \mathrm{P} / \mathrm{B}$ ratio of 1.0 is very good - unless the asset base is a bunch of rusty unused railroad tracks. A P/B of less than 1.0 signifies a buying opportunity if book assets are quality assets. A price way out of line with book had better be justified by conservative asset valuation or by the nature of the industry.

## Market cap

When calculating P/S ratios or other valuation measures, it's sometimes easier to look at aggregate rather than per-share amounts. Sales are reported as an aggregate figure, not as a pershare figure. So to compare apples to apples, you can look at aggregate share valuation instead of the per-share price. This aggregate
figure is known as market capitalization, or market cap for short. Market cap is simply the number of shares (usually the fully loaded number, including options and equivalents) times the stock price. Divide total market cap by total sales, and you have the $\mathrm{P} / \mathrm{S}$ ratio.

In the software industry, for example, if R\&D (research and development) is properly expensed and intellectual capital intangibles are aggressively amortized, book value and $P / B$ will be low.

Again, like elsewhere, trends and apples-to-apples comparisons are important.

## Part III

## So You Wanna Buy a Business?

The 5th Wave
By Rich Tennant

"What made you think you were the one to own and operate a china shop, I'll never know."

## In this part . . .

$w$e help you to assess or appraise the value of a company and relate that value to a stock price. We examine some of the proven methods of business value assessment, including intrinsic value, book value, discounted cash flow, and the strategic profit formula. Then we sprinkle in a dash of intangibles (investors shouldn't live by numbers alone) and discuss buy and sell decisions. To bring these tools and techniques together into a system, we use none other than the full example of the master, Warren Buffett. Finally, to provide practice and reinforcement, we present case studies of value, and for further reinforcement, we resort to the age-old technique of showing opposites: examples of unvalue.

## Chapter 11

## Appraising a Business

## In This Chapter

- Understanding the difference between business valuation and stock valuation
$>$ Considering factors driving business value
- Building a business valuation methodology

1
f you compare Value Investing For Dummies to a fancy restaurant meal, then Chapters 1 through 10 provide the table, dishes, silverware, menu, appetizers, wine, bread, and ambience. These chapters give the value investing context and approach, as well as a "menu" of basic tools commonly used to evaluate a company's performance.

But the ingredients alone don't create a dining experience. It must all be put together. This chapter moves forward to the main course: using what you discover about a business to appraise it as an investment. Value investors strive to understand what a business is worth before making an investment decision.

But this main course isn't all that simple: It could be a college course. Business valuation has been the subject of extensive theoretical study and debate as well as experience and learning - in the investing community. It is at best an inexact science that no two people do exactly the same way. The goal here is to expose you to some of the techniques and underlying principles. Whether you apply them rigorously to every investment decision or just keep them "back of mind" is up to you.

This chapter outlines a system or approach to business valuation. Two major valuation approaches are covered: intrinsic and strategic valuation. The chapters that follow provide a practical framework for applying these approaches and a set of tools that a nonprofessional value investor can use.

# Business Valuation vs. Stock Valuation 

So you think you know how to value a business? Just look at the price to earnings ( $\mathrm{P} / \mathrm{E}$ ) ratio, then maybe price to sales $(\mathrm{P} / \mathrm{S})$ and price to book $(\mathrm{P} / \mathrm{B})$ ratios, compare to its closest competitor, and voilà - you've valued the business. Right?

If you guessed "no", you're on the right track. $\mathrm{P} / \mathrm{E}, \mathrm{P} / \mathrm{S}$, and $\mathrm{P} / \mathrm{B}$ are valuation ratios (see Chapter 10). They value the stock, not the business. They compare the stock price to a top- or bottom-line attribute of the business. They suggest whether the stock price is reasonable in the context of that attribute, but they don't tell you what the business itself is worth.

We're not saying that stock valuation ratios have no place in value investing. Valuation ratios play into a good value investment system, usually in two ways:

Valuation ratios can be used at the beginning to screen companies for deeper analysis. As you can imagine, performing a detailed valuation analysis of 1,700 companies otherwise takes far too long.
$\checkmark$ Valuation ratios can be used after completing the company appraisal to determine whether the price and timing are right to buy.


Relying on valuation measures alone can give you a superficial view of company performance, especially if unusual items like one-time write-offs color the numbers. If you don't understand the underlying fundamentals and trends, you may hitch your wagon to the wrong horse.

## What Goes into Valuing a Business

Plain and simple, the real and true value of any business is the sum of all the cash you receive from the business now and in the future. The two questions left to be answered are "how much?" and "when?" These questions are the same for any business you may buy or engage in: starting a lemonade stand, writing a book, or buying the Coca-Cola Company. The importance of "how much" is obvious, and the importance of "when" refers to the time value of money. A sum received today has more value than the same sum received 20 years from now.

If you knew how much cash would be returned and exactly when it would be received, you'd be able to nail the business value with accuracy. But unfortunately, life isn't so simple. You must piece together the "how much" and "when" from what you know, and what can be inferred, about the business and its value as a business.

## Business value drivers

Business value is created and driven by the following factors:
$\checkmark$ Income: Profits - revenues in excess of costs - are the starting point. More important are the cash flows, especially free cash flows generated by the profits. A company starting at a loss and banking on future profits is starting in the hole, particularly considering the time value of money.
$\checkmark$ Income growth: Steady income with no growth over time is valuable, and a business with steady income is worth paying for. But without growth, the value of future earnings depreciates over time. There's little to make a stock price rise in this instance unless the market values the income stream incorrectly in the first place. So income growth becomes a key driver of business value.
$\checkmark$ Productive capital investments: It's important that a company be able to invest additional capital productively - at a greater return than it would get by putting that capital in the bank. And it goes without saying that a company should invest capital more productively than you can; otherwise, it makes sense for you to invest your capital elsewhere. If the company doesn't have productive places to invest but pays you a good return (dividends), the company has value, but again there may be little to drive share price growth.
$\checkmark$ Rising productivity and falling expenses: A good business makes progressively better use of assets and creates more output per unit of input. Businesses that can do so are likely to generate more income sooner per unit of capital deployed than other less productive businesses.
$\checkmark$ Predictability: Generally, a business with a predictable, steady income stream is more valuable than a company that has erratic or cyclical earnings. The erratic company may return as much money in the long run as the steady company, but the uncertainty surrounding the earnings stream requires a higher discount rate or margin of safety because you just don't know. The higher discount rate reduces value.
$\checkmark$ Steady or rising asset values: Asset growth, particularly current assets, should ultimately lead to higher shareholder returns. If assets (for example, cash) aren't distributed directly to shareholders, the company may become a more attractive takeover target. Since an eventual takeover also pays you cash or some other consideration that can be converted to cash, like stock of the acquiring company, a business with high or growing takeover value is more valuable. A company with falling assets is suspicious, unless generated income is still steady or rising - the decline in assets may be part of a deliberate strategy, as we've seen with railroads and are starting to see with airlines.


It's interesting to compare these business value drivers to your personal situation. If you have predictable income, it's growing, you're investing your income and savings productively, your expenses are falling, and your assets are going up in value, you, as a "business," are doing okay. In the business world, it's no different - just a little harder to evaluate.

## Appraising Business Value

You know the goal: An appraisal of business value factoring in a lengthy list of diverse inputs. A "perfect" business value assessment could be a neverending exercise. You could unearth more and more detail that could affect value, and by the time that Input Z was measured, Input A would change. And there are enough subjective points to the valuation process (such as discount rates and marketplace intangibles) that peeling back every layer of the onion just doesn't make sense. The more you know, the more you don't know.

## Intrinsic and strategic valuation

From what you've read in other books or articles about value investing, you probably realize that dozens of valuation approaches are out there. One writer uses a set of ratios; another looks at acquisition value; and a third projects earnings based on sales growth, margins, and P/E ratios. All these approaches make sense. The goal here is to take the best of what's out there and make it understandable, practical, and versatile enough to deal with different situations and differing amounts of information. The valuation system presented in this book is built on two component approaches: intrinsic valuation and strategic valuation.

Intrinsic valuation places a dollar value on the business by estimating the value of future income or cash flows considering growth, timing, and discount rates. Intrinsic value formulas calculate a per-share value for the company. However, because of predictive uncertainty and the nature of underlying assumptions, intrinsic valuation is far from precise. As a result, the value estimate can have a wide range depending on the assumptions made in the valuation process. Still, whether or not as an investor you choose to run detailed intrinsic value calculations, understanding intrinsic value principles will help in judging business and company value.


#### Abstract

$\checkmark$ Strategic valuation backs up a step from intrinsic valuation to examine factors that drive and ultimately create intrinsic value, and thus shareholder value. Most of these factors are influenced or controlled by specific management strategies, hence the term strategic value. There are two components of strategic value: strategic financials and strategic intangibles.


Strategic financial value starts with return on equity (ROE), a core driver of shareholder value. From ROE, fundamental strategic valuation works backward to assess major ROE drivers of profitability, productivity, and capital structure. Those ROE drivers, in turn, are driven by the strategic intangibles, such as market position, supplier position, "moats," and management effectiveness.
Strategic valuation doesn't give a single figure for company value, but it tells you how many of the arrows point in the right direction and whether management is pulling the right levers to create shareholder value - and eventual shareholder returns.

The two approaches are not altogether unrelated. Strategic value affects intrinsic value. A company with high and growing profit margins, return on assets, and a good franchise will not only maintain strong ROE but also produce high returns on invested dollars and a high intrinsic value.

Intrinsic value gives a specific dollar business value, albeit with a wide range, for each share of a company's stock. This value is of little use for comparison except with the company's stock price; that is, if the stock price is far less than the intrinsic value per share, the stock is a good buy. On the other hand, strategic value is much more comparative; you can use it to compare Company A to Company B to decide which one to buy.

## Developing a value investing system

In the end, if you have the time, you're probably well served to calculate intrinsic value; then flavor it with strategic value assessments and intangibles. But the difficulties and vagaries of intrinsic value calculations make strategic valuation probably the more practical of the two approaches.

You may be disappointed to find no absolute system or set of formulas to pick the surefire winners. The formulas and thought processes are provided, but developing a value investing system is a matter of personal preference, and to a degree depends on the types of businesses you invest in - and is pretty much left up to you. The approach you choose depends on your time, appetite for numbers, goals, and, ultimately, what works through your experience.

Having said that, the value investing approach offered here is an example or model that could, with or without modifications, form the basis for your value investing system. It's designed for nonprofessionals who may have just a few hours a month to sit down to review and select investments.

## 1. Screen companies.

Using P/E, P/S, or other chosen ratios, get a list of companies to evaluate. More sophisticated stock screens can be used, as can lists of stocks you may run across from value oriented fund managers or other pros. The list can include businesses or industries considered timely by popular investment analysts or the financial press, or companies you deal with in everyday life that appear to have their acts together.

## 2. Calculate intrinsic value.

Using models from Chapter 12, derive an estimate of intrinsic value for each company. Experience will give you a set of assumptions that you can apply consistently. Getting good at this step may take practice.

## 3. Assess each company's strategic value.

Develop a checklist, similar to Ben Graham's checklist in Chapter 3, for key business performance measures (return on assets growing, return on equity constant, profit margins growing, sufficient liquidity, and so on). Try to determine if the company has a "moat" or sufficient business advantage to protect the business against competition and sustain growth. Such a list is presented in Chapter 13. Then, add a checklist and evaluate intangibles, as shown in Chapter 14.

## 4. Decide whether the price is right.

Compare current price to intrinsic value, sprinkle in strategic value assessments, and bake in a dash of judgment. Look at valuation ratios ( $\mathrm{P} / \mathrm{E}, \mathrm{P} / \mathrm{S}$, and $\mathrm{P} / \mathrm{B}$, both current and historic) to decide whether the price is right and whether a margin of safety exists. Check to see whether price can grow to meet your investment objectives. This process is the subject of Chapter 16.

This four-step process is only an example; you may end up doing something totally different. Some investors emphasize certain steps depending on the amount and reliability of the information available. Steps 2 and 3 can be reversed. Strategic value can be evaluated first, with intrinsic value used as a reality check to validate selections. It all depends on what works for you that is, what is time-efficient and produces the best results.

## Chapter 12

# Running the Numbers: Intrinsic Value 

## In This Chapter

Considering the case and place for intrinsic value

- Understanding how intrinsic value models work
- Exploring two approaches to intrinsic value modeling
- Building and using an intrinsic value worksheet
- Using tools to model intrinsic value

$w$hat is anything really worth? Regardless of what you buy in everyday life - or invest in - this is the nagging question for all financial skeptics. You pay six figures for that house, realizing the impossibility of counting nails, two-by-fours, sheets of plywood, and roof shingles, not to mention the work required to get them there and put them in place. The house has a value, and the whole is worth more than the sum of the parts. The value to you as a buyer is related not just to nails and boards, but how they fit together to deliver a "return" to you as a living space - now, in the future, and compared to alternatives.

Investments can be looked at in much the same way. You can round up all the buildings, trucks, pallet jacks, servers, and PCs that a company owns, assign a value to each, and add it all up. But that's a monumental and largely impossible exercise, and it would still miss the main point.

Instead, what's really important is what all that stuff produces in the form of investor returns. Intrinsic valuation is the art and science of placing a fair value on current and future investment returns. When assets are deployed productively, you don't care about how much the pallet jacks are worth. The return they help generate is what's important. If healthy returns stopped coming, then and only then are investors concerned about how much the pallet jack is worth - its residual asset value - for liquidation.

Value investors think of the asset base as a minimum, or floor, for intrinsic value. True measured value comes from the returns. Intrinsic value formulas help value investors measure a business value from today's facts and data. As
will be shown, intrinsic valuation depends on assumptions, many of which elude precise identification. A wide range of projected values can result. For that reason, some value investors choose to avoid the intrinsic value calculation. But that doesn't mean you should avoid this chapter. Value investors should understand the principles and purpose behind intrinsic value, whether or not they attempt the actual calculation.

## The Intrinsic Value of Intrinsic Value

Intrinsic value is a present dollar value placed on net returns generated by a business over time. This is the financially correct theoretical value of any security or investment. It's the net present value of all future returns from investing in a productive asset - in this case, a business.

As a practical matter, wouldn't it be great if you could quantify "present dollar value" precisely? For fixed income or bond investments, it's relatively easy. Save for default, you know what you're going to get back: a fixed return or "coupon" - a fixed payment. As an investor, you must decide how much that return is worth. Current interest rates, alternative investments, and default risk play a role, but calculating the return on a bond is fairly straightforward.

## Valuing equities

Valuing business equity investments is a trickier task. There is no guaranteed return. Instead, returns vary year by year with fluctuations in sales, sales prices, costs, and internal productivity. Market factors, competitive factors, operating efficiencies, financing costs, and a wide range of other factors affect profits - and thus returns - on equity investments.

Further, not all returns are paid to shareholders. Aside from dividends, returns are reinvested in the company for future returns, which are also unpredictable. These returns may not be paid back to shareholders for years, even decades, depending on the life of the company. The company may choose to keep reinvesting, hopefully with success. In this scenario, the value investor tries to estimate those returns over the lifetime of the company into the indefinite future.

For all but the largest companies, selling out or merging with another company is a common outcome. In this case, the long term, or continuing, value of a company is paid to shareholders in the form of cash or securities of another company. But it may not happen for 20 years. In determining intrinsic value, investors can model either long-term outcome; this chapter shows how to do it both ways.

## Intrinsic value models: The reality

You can assign an intrinsic value to a company by mathematically estimating future returns - from income or the sale of the business or both - and their current or present value. But as you probably guessed, there's a considerable range of possible outcomes, depending on what assumptions you use.

Intrinsic value models depend on estimating growth rates and growth periods and assigning a discount rate to bring future returns back to present value. These inputs are hard to establish precisely, and the outcome is extremely sensitive to the inputs. So once again, there's no one-shot formula for securities valuation. But an understanding of the model and its behavior can contribute mightily to investment analysis. And as a prudent investor, you can choose a conservative set of assumptions to get a conservative result.


Once again, if all investing boiled down to simple, precise mathematical formulas built on perfect knowledge, there would be no difference of opinion on company values, and thus no market. The whole equity, or stock market, "space" would function more like a Treasury bond market, except that your investments would rise or fall dollar for dollar with every incremental change in company fortune. There would be no reason for investment books the same stock valuation formulas would be on your PC or calculator and everyone else's. Superinvestors like Warren Buffett wouldn't become superinvestors, because they couldn't make better judgments than the next investor. Markets would no longer fire up the competitive juices of investing buffs, nor provide conversation topics for cocktail-partygoers. It would be a bit boring.

There are many ways to use intrinsic value principles and models:
$\checkmark$ Thought framework: Intrinsic value principles serve as a thought framework, or investing "conscience." Successful investors constantly weigh future returns, risk and uncertainty, and alternative investments. Calculating specific values may not be so important; it's the thought process that counts.
$\checkmark$ Entry point: Intrinsic value models provide a good entry point for investment analysis. By playing with the assumptions, you get a picture of a stock's logical range and of the factors that could cause a stock to exceed the range in either direction.
$\checkmark$ Reality check: While precise business and stock valuations may be elusive, intrinsic value modeling may help you validate an investing decision come to in a different way. As a reality check, look to see whether calculated intrinsic value is below or close to share price.

## Intrinsic Value Basics

Theoretically and practically, the value received for owning a business or a security is the dollar return amount received over time from your investment. That return may come as a single payment at the end of the ownership period for selling the stock or business, as payments at regular intervals during ownership, or (often) as a combination of the two.

At first glance you may say that it makes no difference - money is money. But growth and time value of money have a major impact on the final valuation of equity investment returns. In fact, intrinsic valuation is a lot about assessing the effects of future growth on future returns and then assigning a present value to those returns.

## A checklist of how's

The following "how" questions can guide the appraisal of business returns.

## How much?

How many dollars of return will the business produce, either to distribute to shareholders or to invest productively in the business? Key drivers are profitability and growth rates - and the collection of business factors that drive that profitability and growth.

## How soon?

Big payoffs are nice, but if you have to wait 30 years for them, they aren't as valuable. Remember the time value of money. If two companies produce the same return, but one does it sooner, that company has more value because those dollars can be reinvested elsewhere sooner for more return.

## How long?

Although future returns have less value than current returns, they do have substantial value; and 20,30 , or 50 years of those returns can't be ignored, particularly in a profitable, growing business.

## How consistent?

A company producing slow, steady growth and return is usually more valuable than one that's all over the map. A greater variability, or uncertainty, around projected returns calls for more conservative growth and/or discounting assumptions.

## How valuable?

Finally, after assessing potential returns (how much, how soon, how long, how consistent), you must assign a current value to those returns. That value is driven by the value of the investment money as it may be used elsewhere. A return may look attractive - until the investor realizes that he or she can achieve the same return with a bond or a less risky investment. Valuing the returns involves discounting (using a discount rate) to bring future returns back to fair current value. The discount rate is your personal cost of capital in this case, the rate of return you expect to deploy capital here versus elsewhere.


Sooner isn't always better. A business producing quick, short-term bucks may not be more valuable than one that produces slow, steady growth. The quickbucker may be cyclical and go through years of diminished or even negative returns. Even though the quick-bucker produces a lot of value in the first few years, that may not be better than sustained growth and value produced later on by the slower, steadier company. The quick-bucker may be relying on a technology or some other competitive advantage that could dissipate or disappear altogether. Likewise, a company with a long-term and sustainable advantage, sometimes known as a "moat" keeping competitors away, may beat a company with very high but only short-term returns. Bottom line: It's a combination of how much, how soon, how long, and how consistent. The tortoise often beats the hare.

## More about returns

The term returns has been used kind of loosely so far. What returns are we talking about? Direct returns to shareholders? Returns to the business? Net income? Cash flow? EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization)? What's the best "base" for intrinsic value?

Net income to the business is the starting point, but many investors look further.

## A few words about dividends

Dividends represent a direct cash payment of a portion of company profits to its shareholders. A dollar paid to shareholders comes directly out of retained earnings - and future book value - of the company. For many investors, a dividend check "bird in the hand" is worth more than two reinvest-in-thefuture "birds in the bush," and some regard dividends as a reaffirmation of management commitment to producing returns for shareholders. But dividends paid are money taken out of the business, possibly attenuating future growth in dollars and future business returns.

As part of intrinsic value, dividends are counted as part of yearly investment returns and grown and discounted in the same way as earnings retained in the business. But deducting dividends reduces the growth base of retained earnings and book value kept in the business. Companies with a high growth rate and return on equity often yield greater intrinsic value if all earnings are retained and reinvested, which is why you often see just that - no dividends in high-growth companies.

## Cash flow (CF) or discounted cash flow (DCF)

Cash flows, covered in detail in Chapter 8, are yearly cash returns into a business, without accounting adjustments for asset write-downs, amortizations, and the like. Earnings depend a great deal on how the company values and adjusts the value of assets. At the end of the day, cash accounts grow - and checks are written - on cash flow. Many sophisticated security analysis models, including intrinsic value models, operate on cash flow. These models are sometimes referred to as discounted cash flow (DCF) models.

## EB1TDA

EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) is an approximation of cash generated by business operating activities. Okay, but interest and taxes are real, and depreciation "chickens" come home to roost someday when depreciated fixed assets need to be replaced. So as intrinsic value calculations are necessarily long term in view, it's dangerous to leave out the cost of fixed assets.

## Free cash flow (FCF)

Free cash flow is essentially cash flow generated from operations beyond interest, taxes, and capital investments. As a business owner, it's what you'd really be able to put into your pocket. Much better.

## Net free cash flow (owner earnings)

The most realistic version of free cash flow starts with plain old free cash flow; then makes an additional adjustment for working capital changes. If persistent growth in accounts receivable or inventory is required to sustain business levels, the cost or cash invested in those assets should be deducted from that returnable to owners.

Net free cash flow =
operating earnings
less interest and taxes
less capital investments
less net working capital increases (or plus working capital decreases, if working capital is being reduced)

Warren Buffett uses net free cash flow to do his assessments and wisely calls it owner earnings to represent the annual earnings truly available to business owners.

Any one of these cash flow streams can be used as an input to an intrinsic value or DCF model, and they are probably more robust than reported earnings. But they are harder to identify for the nonprofessional investor. Most free data sources provide little in the way of cash flow figures, and if they do, they aren't adjusted to accommodate fixed or working capital investments. It takes a deep understanding of a company to properly time fixed and working capital investment outlays into an intrinsic value computation. Therefore, most investors use earnings as the most readily available proxy for business returns. It's a good place to start. Understanding earnings quality and the differences between earnings and cash flow goes a long way toward producing valid results.


When using earnings streams to project future returns, make sure to understand quality and one-time extraordinary gains or losses. Especially when occurring in the base year, extraordinary earnings items can mess up the intrinsic value calculation. Be especially careful when using a "canned" package, as it picks up whatever is on a company's source earnings database, ordinary or otherwise. To their credit, analysts and Value Line usually filter out these abnormalities when making projections.

## Projecting growth

Beyond the net assets owned by a business today, intrinsic value is driven by current and especially future earnings. So projecting future growth in these earnings is vital to determining intrinsic value. So it makes sense to examine growth assumptions more closely.

## Can it climb forever?

No airplane can climb at the same rate forever, and neither can a business. Soon the air thins, fuel runs low, safety margins diminish - and we must level off.

True intrinsic value is the total of all future investment returns. This year, next year, $5,10,20,40,80$ years from now. Now, how can you possibly project a company's return 77 years from now? It's hard enough to do it for this year! How do you play years 77-80 into the intrinsic value calculation? Especially with a knowledge of gravity and the understanding that growth rates inevitably level off?

## First-stage growth

Near-term growth is by nature easier to model, and as a result of the discounting process, they contribute more towards the final result anyway. So intrinsic value models are set up to specifically value a first stage in detail, year-by-year. Typically the first stage is 10 years, although in some analyses it may be more or less.

More often than not, the first stage is assumed to have a higher growth rate and a lower discount rate than the second stage. Why? High altitude attenuates high growth rates as time goes on, while risk and uncertainty call for higher discount rates farther into the future.

## Second-stage growth

The second stage covers the more nebulous period of business life beyond the first stage. Second-stage returns are harder to project accurately, so intrinsic value models use one of two assumptions to estimate what's known as continuing value:
$\checkmark$ Indefinite life: The indefinite life model assumes ongoing returns and uses a mathematical formula to project returns over an indefinite period and assign a value to those returns.
$\checkmark$ Acquisition: Want a convenient way to bypass mathematical approximations? Assume that someone will come along and buy your business after the first stage at a reasonable valuation. Returns include all future payouts, including lump sums, so this method works too, so long as resale value is projected reasonably.


To summarize, each stage of a business life has a growth rate and discount rate applicable to that stage. One growth rate and one discount rate is applied to the first stage, and another growth and discount rate to the second. Then, you calculate net future earnings by first compounding growth over the first stage and then discounting that value back to the present. A generalized formula, either indefinite life or acquisition-based, is applied to the second stage. The value attributed to the second stage is called continuing value. The process will be discussed next.

## Intrinsic Value Models

It's time to look at the intrinsic value model itself - that's the best way not only to get to know the tools but also the concepts. We'll build one from scratch as an Excel spreadsheet. At the time of this writing, there is little in the way of PC- or Web-based models available for use by consumer investors, but one available from iStockResearch will get a look.

## Model outcomes

Any time you use a tool, it's good to know in advance what outcome to expect. With intrinsic value models, the finished product is simple, but your work as a value investor isn't done. Intrinsic value models provide a single-figure result: the estimated per-share value of the company. One single number. For example, Simpson Manufacturing may be projected to be worth $\$ 34.97$. So are you done?

If you're satisfied with this number and the assumptions going into it, you can compare this intrinsic value with current market price and make a buying (or selling) decision. More likely, you'll want to model a range of intrinsic values based on different assumptions - results can vary widely. Your analysis will produce a range, not a single number. Then, to complete the value appraisal, you may want to consider strategic financials and intangibles (see Chapters 13 and 14) before hitting the buy button.

## Three choices

As mentioned, there are three intrinsic value models to consider:
$\checkmark$ Build-your-own model: Using Excel, the worksheet model is fairly easy to construct; formulas will be shown along with sample results for both indefinite continuing value and the acquisition assumption.
$\checkmark$ Prepackaged Web-based analyzer: At the time of this writing, the data and analysis package offered by iStockResearch (www.istock research.com) is the best free option available.

Intrinsic value formula as developed by Ben Graham in Security Analysis (discussed in Chapter 3): This simple formula is easy to apply and gives surprisingly robust results.

## Getting Started: The Intrinsic Value Worksheet

With a spreadsheet and a few initial assumptions, you can build your own intrinsic value worksheet for either "continuing value" assumption. Figure 12-1 shows an example of the "indefinite life" continuing value model, with formulas to help you build your own. Note that dollar figures, except per share amounts, are in millions.

| INTRINSIC VALUE WORKSHEET |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| indefinite life model |  |  |  |  |  |
| (1) |  |  |  | Variable | Source |
|  | Growth and Discount assumptions |  |  |  |  |
|  | second stage growth |  | 5\% | g 2 | assumption |
|  | first stage discount rate |  | 12\% | d1 | assumption |
|  | second stage discount rate |  | 15\% | d2 | assumption |
| (2) | Earnings, shares outstanding, EPS |  |  |  |  |
|  | number of shares (fully diluted, M ) |  | 48.9 |  | statements |
|  | beginning EPS | \$ | 2.10 |  | calculation |
| (3) | Discounted 10-year earnings stream vear 1 |  |  | Calculations |  |
|  |  |  |  | Start with beginning earnings |  |
|  | year 1 <br> year 2 | \$ | 98.87 |  |  |
|  | year 3 | \$ | 97.11 |  |  |
|  | year 4 | \$ | 95.37 | First, compound |  |
|  | year 5 | \$ | 93.67 | for growth: |  |
|  | year 6 | \$ | 92.00 | $\underset{(1+g 1)^{n}}{\text { multiply E by }}$ |  |
|  | year 7 | \$ | 90.35 |  |  |
|  | year 8 | \$ | 88.74 |  |  |
|  | year 9 | \$ | 87.16 | , , then discount: divide by |  |
|  | Total discounted return, first 10 years |  |  |  |  |
| (4) |  |  |  | sum years 1-10 |  |
| (5) | Continuing value beyond $\mathbf{1 0}$ years continuing value (> 10 years, $n=10$ ) | \$ | 941.59 | [E**(1+g1) ](d2-g2)  |  |
|  |  |  |  | $(1+d 1)^{1}$ |  |
| (6) | Total future returns value, discounted |  | 1,871.13 |  |  |
|  |  | \$ |  | 10 year + terminal value |  |
| (7) | Long term debt adjustment |  |  |  |  |
| (8) | Net future returns value |  |  | from statements |  |
|  |  | \$ | 1,871.13 | subtract LT debt |  |
| (9) | Per share intrinsic value | \$ | 38.26 | net future value / \# shares. |  |
|  | implied P/E |  | 18.3 |  |  |
|  | implied PEG |  | 1.8 |  |  |

## Working with the worksheet: Indefinite life model

The "mainstream" intrinsic value model makes a mathematical assumption about so-called "continuing value." The worksheet has nine parts. Each is examined in more detail in the following sections.

## Step 1: Growth and discount assumptions

Not surprisingly, here at the very top of the worksheet is where you can do the most damage - or the most good - to your analysis. Those of you familiar with the time value of money and the power of compounding readily recognize the potential effects of these assumptions carried over 10,15 , or 20 years.


The most realistic way to model intrinsic value is to choose two stages: a more rapid initial growth stage and a more conservative, or flat, second stage. So two growth rates are chosen, and two corresponding discount rates are chosen. Almost always, the initial growth rate exceeds the second stage growth rate, while, due to uncertainty, the second stage discount rate exceeds the initial one.

## Choosing a growth assumption

You're thinking that you can't even pick a show horse for the next race, and you're being asked to choose business growth assumptions from now to eternity? Scary stuff, for sure. You can rely on outside sources such as analysts or Value Line. You can eyeball the numbers yourself and pick a number that makes sense, even with conservative bias. Or you can dig deeper and do what most professional analysts do and derive earnings growth estimates by projecting sales, profitability, productivity, and so on. The point is, you need a number - a number you feel comfortable with. Again, it's art and science.

Table 12-1 identifies approaches to assessing growth rates.

| Table 12-1 | Approaches to Assessing |  | Earnings Growth |
| :--- | :--- | :--- | :--- |
| Rating | Approach | Advantages | Disadvantages |
| Good | Using analyst <br> projections (from <br> the financial press, <br> Yahoo! Finance, <br> and so on) | Simple, readily <br> available | Analysts may over- <br> estimate; estimates <br> may not be current |
| Better | Value Line <br> projections | Solid research, <br> long history | Sometimes too optimistic |
| Better | Project your own <br> earnings or cash <br> flow growth from <br> history | You get the best <br> overall feel, can <br> include own <br> conservative bias | Sufficient history hard <br> to find, must filter out <br> extraordinary items |

## Table 12-1 (continued)

| Rating | Approach | Advantages | Disadvantages |
| :--- | :--- | :--- | :--- |
| Best | Derive earnings | You get the | Time consuming; |
|  | growth from sales | deepest | some information |
|  | growth, profit | understanding. | may be elusive |
|  | margins, and | This is the true | and hard to get |
|  | operating expense | buying-the- |  |
|  | projections. Examine | business |  |
|  | market share, | approach |  |
|  | business and brand |  |  |
| strength, capital |  |  |  |
|  | requirement, and |  |  |
|  | earnings quality. |  |  |

Figure 12-2 is an example of a revenue growth assumption retrieved from Yahoo! Finance for Simpson Manufacturing. Note that this Yahoo! Finance figure represents projected revenue growth as a percentage, so to project earnings growth, one must assume that revenue growth and expense growth run in lockstep. If that isn't the case, you'll want to make your own expense growth projection, which will in turn modify the earnings growth forecast.

Yahoo! Finance and many other sources also project future earnings per share, not as a growth percentage but as actual per-share amounts. You can derive earnings growth assumptions from these figures also. We will now share examples of three resources we used to get growth assumptions.


Don't be afraid to check other resources for growth projections, including Value Line, Morningstar, and assorted analyst reports. Regardless of how you decide to formulate your growth assumptions, it is important to be consistent. Comparing two businesses by using different approaches to growth and discounting assumptions can lead to trouble.

|  | Revenue Est | $\begin{aligned} & \text { Current 0tr } \\ & \text { Sep-07 } \end{aligned}$ | Next Otr Dec-07 | $\begin{aligned} & \text { Current 0tr } \\ & \text { Dec-07 } \end{aligned}$ | Next Otr Dec-08 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Figure 12-2: <br> Analyst <br> revenue <br> growth <br> projections <br> from Yahoo! <br> Finance. | Avg. Estimate | 222.14 M | 184.76M | 831.37M | 919.52M |
|  | No. of Analysts | 3 | 3 | 3 | 3 |
|  | Low Estimate | 216.30M | 170.70M | 811.50 M | 886.10M |
|  | High Estimate | 233.73M | 196.03M | 854.21M | 965.66M |
|  | Year Ago Sales | 226.72M | 179.57M | 863.18M | 831.37M |
|  | Sales Growth (year/est) | -2.0\% | 2.9\% | -3.7\% | 10.6\% |

## First- and second-stage growth

The tools and techniques just presented are useful for projecting first-stage growth, but start to fall apart when assessing second-stage growth. Not even the most self-assured analysts try to pin down growth rates beyond ten years!


Be careful, as excessive second-stage growth rates will really distort results because so much time is involved. And no matter what the company is, sooner or later it will exhaust market growth and penetration opportunities. Second-stage growth rates should be less than first-stage growth rates and less than 10 percent, probably no more than 5 or 6 percent. Conservative is always better.


If you're uncomfortable with second-stage growth rates and their effect on valuation (and many investors are), you can use the acquisition model presented later in this chapter. Although this model implies that an acquisition will take place, it can also be used to reduce sensitivity to input assumptions even if acquisition is unlikely.

## Choosing a discount assumption

This part is tricky, and there is no easy or exact answer.
In theory, the discount rate should be your own personal cost of capital for this kind of investment. If you have a million bucks and can invest it with no risk in a Treasury bond at 6 percent, your cost of capital is the risk-free 6 percent you would forgo by not investing in the bond. So the implied cost of your dollars made available to invest in Business XYZ starts at 6 percent. Financial types refer to this opportunity cost as the risk-free cost of capital.

But implicitly, Company XYZ common stock is riskier than the bond investment. Sales, earnings, and myriad other intrinsic things can change, as can markets and the market perception of XYZ's worth. So an equity premium is added to the risk-free cost of capital rate. In effect, the total cost of capital is your required compensation, or hurdle, for the opportunity you've lost by not buying the bond, plus the assumption of risk by investing in XYZ.

Here's where we depart from the stacks of research papers and finance textbooks. Much has gone into identifying appropriate risk premiums and the like. Modern portfolio theory and its reliance on beta - a measure of relative stock price volatility - doesn't really do much for most value investors. (Remember: Price doesn't determine value.)

The keep-it-simple approach used by most value investors, including Warren Buffett, is to discount at a relatively high rate, usually higher than the growth rate. Buffett uses 15 percent as a discount, or "hurdle" rate - investments must clear a 15 percent "hurdle" before clearing the bar. The 15 percent hurdle incorporates a lot of risk, especially in today's environment of relatively low interest rates and inflation. Conservative value investors usually use discount rates in the 10 to 15 percent range.

As you build and run models, you'll see firsthand how the discount rate affects the resulting intrinsic value. Here are a few points to remember:
$\checkmark$ The higher the discount rate, the lower the intrinsic value - and vice versa.
$\checkmark$ The second-stage discount rate should always be higher than the first stage. Risk increases the farther out you go.
$\checkmark$ If you choose an aggressive growth rate, it makes sense also to choose a higher discount rate. Risk of failure is higher with high growth rates.
$\checkmark$ If the discount rate exceeds the growth rate, intrinsic value will be low and implode more quickly the larger the gap. Aggressive growth assumptions with low discount rates yield very high intrinsic values.

If you're worried about earnings and earnings growth consistency and want to factor it in somehow, but don't want to do a deep statistical analysis on a zillion numbers, Value Line does one for you. At the bottom right corner of the Value Line Investment Survey sheet is a figure called "Earnings Predictability" if the Survey covers the company you're evaluating.

It's really a statistical predictability score normalized to 100 (100 is best, 0 is worst). A score of 80 and higher indicates relative safety; below 80 means that you may want to attenuate growth rates or bump up the discount rate to account for uncertainty.

Here again is the set of growth and discount assumptions used for this example. Consistency is important, but growth rates will vary for each company, and discount rates may change also with differing risk assessments.
First-stage growth 10\%

Second-stage growth 5\%
First-stage discount rate $12 \%$
Second-stage discount rate 15\%

## Step 2: Earnings, shares outstanding, EPS

Now that the all-important growth and discount assumptions are made, the rest of the worksheet, even with formulas, is relatively simple.

Earnings, number of shares, and EPS come straight from the statements. It's best to use "fully diluted" earnings and share counts, but in any case, to be consistent. This model projects total, rather than per share, earnings streams to make it easier to subtract out (not per share) long-term debt (which happens to be zero for Simpson).

When loading beginning earnings, remember to adjust for one-time or extraordinary gains or charges.

## Step 3: Calculate ten-year earnings stream

This section projects growth during each year of the first stage and then discounts the resulting value back to the present. The spreadsheet formulas are straightforward:

For each year
Multiply beginning earnings by $\left[(1+\mathbf{g} 1)^{\mathrm{n}}\right]$
where $\mathbf{g 1}$ is the first-stage growth rate and $\mathbf{n}$ is the sequential future year.

Then
Divide that figure by $\left[(1+\mathbf{d} 1)^{\mathrm{n}}\right]$
where $\mathbf{d 1}$ is the first-stage discount rate.
The resulting figures represent projected earnings for each year, discounted to the present. Remember again, these dollar figures, except per-share amounts, are in millions.

$$
\text { Year } 1 \quad \$ 100.67
$$

Year 2
\$98.87
Year 3
\$97.11
Year 4
\$95.37
Year 5
\$93.67
Year 6
\$92.00
Year 7
\$90.35
Year 8
\$88.74
Year 9
\$87.16
Year 10 $\$ 85.60$


The fact that projected earnings, discounted back to the present, decline over the next 10 years is okay, even though a 10 percent growth rate is assumed. Why? Because the discount rate, 12 percent, is higher. This is a conservative scenario. Simpson is a moderately slow growing company, and being in the construction materials business, is subject to business cycles.

## Step 4: Total discounted return, first ten years

The sum of the first 10 years discounted earnings stream is arrived at simply by summing the figure for each year. The resulting figure represents the total discounted value of first stage:

## Step 5: Continuing value

Higher math enters the picture in calculating a continuing value for all future returns, ostensibly from here to eternity. Avoiding the mathematical basis for the approximation, here's the formula:

$$
\left[\mathbf{E} \times(1+\mathbf{g} \mathbf{1})^{\mathbf{n}+1}\right] \div(\mathbf{d} 2-\mathbf{g} 2) \text { all divided by }(1+\mathrm{d} 1)^{\mathrm{n}}
$$

where
$\mathbf{E}$ is beginning earnings
$\mathbf{g 1}$ and $\mathbf{d 1}$ are first-stage growth and discount rates, respectively
g2 and d2 are second-stage growth and discount rates, respectively
$\mathbf{n}$ is the number of years in the first stage; in this case, 10
Once this formula is entered into your worksheet, the computation is simple. The resulting single value approximates discounted value of all future returns for the business beyond the first stage:

Continuing value beyond 10 years $=\$ 941.59$ million

## Step 6: Total discounted future returns value

The next step is to add first-stage and second-stage continuing discounted value - $\$ 929.54$ million and $\$ 941.59$ million to get $\$ 1,871.13$ million.

## Step 7: Long-term debt adjustment

To arrive at true value, long debt must be taken away from earnings. For all practical purposes, Simpson has no long-term debt - you could subtract $\$ 0.4$ million if desired, but it wouldn't change the result much.

## Step 8: Net future returns value

Net of long-term debt, this is the total intrinsic value, based on future returns, of our business: $\$ 1,871.13$ million.

## Step 9: Per-share intrinsic value

Now, finally, the bottom line. Divide net future returns value by the number of shares outstanding to get a per-share intrinsic value. This is the magic number to compare with market price and to compare to other companies: $\$ 38.26$.

The market price at the time this figure was derived was $\$ 33$, suggesting some potential price growth in the stock.

You're done!

## Working with the worksheet: The acquisition assumption

If the continuing value formula makes you nervous, and if the idea behind it trying to project to eternity - makes you equally nervous, there is another approach. The approach is to assume that someone else will buy the business at a fair value at the end of the first stage. In essence, you get continuing value in a lump sum payment, which, of course, must also be discounted for time value of money.

Before showing the model, here are a few important points:
Growth and discount assumptions are the same as for the indefinite life model.
$\checkmark$ The price paid by the acquirer is the key assumption that makes or breaks this model. That price is calculated as a ratio of price to book value, or P/B. Earnings during the first stage grow the base book value. You then supply an assumption of what price to book value is appropriate ten years down the road and use that to determine the cash-out price.
Earnings paid out as dividends don't accrue to long-term book value and should be backed out of the earnings stream used to grow book value. Net share buybacks should also be backed out.
$\checkmark$ Because book value is already net-of-debt, long-term debt doesn't need to be factored in.

Figure 12-3 shows a ten-year acquisition version of the intrinsic value worksheet.

If you followed the indefinite life version, this will be fairly straightforward. Growth and discount assumptions are the same. Base values are share price and per-share book value, which are used to calculate an initial price to book ratio. A diluted per-share-earnings figure is then used as a base for growth and discounting.


## (4) Beginning share price, book value and earnings

\$ 13.99
(5) Initial book value, discounted

Figure 12-3:
Intrinsic
value
worksheet
for a
ten-year acquisition.

6 Total book value, year 10
(7) Acquisition price-to-book ratio
(8) Per share intrinsic value assuming acquisition
\$ 35.75
sum years $1-10$
initial book / (1+d1) ${ }^{10}$
initial + incremental book value
assumption

Total year 10 book value * $\mathrm{P} / \mathrm{B}$ ratio

The book value is assumed to increase by each year's grown and discounted earnings. If there are dividends or significant share buybacks, subtract them out - they will not "accrete" to book value - but you may want to value them as a separate discounted income stream. The formula for growing earnings and discounting to the present is the same, except here it is applied to per-share earnings instead of total earnings.

To model the value in Year 10, when the supposed acquisition takes place, here is a short tour through the steps:

Steps 1 and 2. Just as with the indefinite life model, make your growth and discounting assumptions and look up key figures on the financial statements. Estimate the annual accretion of earnings to book value, but subtract dividends and other shareholder payments.
Steps 3 and 4. Model the incremental book value per share per year by growing and then discounting the per-share net earnings over the 10 years, much like the indefinite life model.
Step 5. Take current book value and assume that it remains intact 10 years from now. Then discount the value back to the present to get an apples-to-apples view of all components of Year 10 book value. One benefit of this version of the model is that some value is explicitly placed on productive assets already owned by the business.
Step 6. Total the estimated 10-year book value.
Step 7. Now comes the fun part: figuring out the acquisition price based on the $\mathrm{P} / \mathrm{B}$ ratio. What $\mathrm{P} / \mathrm{B}$ should you use? It depends on the type of business, what other comparable acquisitions show, and your own intuition. Today's $\mathrm{P} / \mathrm{B}$ ratio is a place to start, although if it is much higher than 1.0, there's a tendency for the ratio to decline over time as growth patterns settle and the company matures. Any P/B ratio exceeding 3 is probably excessive. In a manufacturing business like Simpson, a P/B of 2.0 is probably reasonable, because book values of productive physical assets tend to be low. If we were valuing a financial institution, with assets mainly in cash and receivables, the "model" P/B would likely be lower. If a technology company, perhaps higher.
Step 8. Multiply the total 10-year book value by acquisition P/B and, voilà, you get intrinsic value. In this example, the intrinsic value is $\$ 34.43$, again higher but not much higher than the stock's current price. If you factor in dividends, however, the true value of the investment increases.

So, depending on how you set the assumptions, the indefinite life model and ten-year acquisition models yield similar results. That isn't a big surprise, for acquiring firms are (or should be) looking for the same kinds of intrinsic value characteristics that you are.

## The iStockResearch Model

As fundamental as intrinsic value modeling may seem, it's surprising how few tools are available for individual "consumer" investors to put it into play. Such models are commonly used by value-oriented investing professionals, but, possibly due to their complexity and sticky assumptions like discount rates, they haven't hit the mainstream.

The first edition of Value Investing For Dummies referenced a stock analyzer offered by Intuit's Quicken, available both in the software package of that name and online. It is no longer available. The best tool now available, offered as a standalone Web site by Canadian-born and educated CFA (Chartered Financial Analyst) Alexander Chepakovich, is called "iStockResearch," and is available at www.istockresearch.com.

The iStockResearch model is similar to the indefinite life model offered in this chapter, but is more complete. First, the site contains the financial data for most major U.S. companies, so you don't have to find it yourself. Second, rather than a split first- and second-stage growth pattern, the model allows a yearly decline or "decay" in growth rates - perhaps more realistic. Finally, it factors in stock option grants (the earlier models did not) and it supplies a recommended discount rate based on current economic conditions and the industry the company is part of.

The results, as shown in Figure 12-4, are similar to the other models. Simpson Manufacturing is found to have an intrinsic value of $\$ 34.97$ based on default assumptions. The model calculated a much lower growth rate than we used but also used a lower discount rate. You can modify the growth and discount assumptions as you choose to get a range of acceptable modeling results.

The site is free and easy to use, and gives a complete set of raw financial data to help in other analysis. We highly recommend this site and set of tools for beginning and more experienced value investors.

Figure 12-4:
iStock Research. com Stock
Valuation
Model.


## The Ben Graham Model

Finally, and perhaps most simply, it's worth checking out intrinsic value through the eyes of Ben Graham, based on his 1930s formula:

Intrinsic value $=$ Earnings $\times[(2 \times$ growth rate $)+8.5] \times[4.4 \div$ bond yield $]$

Well - how about this - a simple straight-line formula, no exponents, no first- and second-stage stuff, no discount rate? Could it work? Take a look at figures for Simpson Manufacturing:

$$
\text { Intrinsic value }=2.10 \times[(2 \times 10 \%)+8.5] \times[4.4 \div 6 \%]
$$

By way of explanation, the first-stage growth rate is used, as Graham calls for. Assuming a 6 percent corporate bond yield and that the $\$ 2.10$ in earnings is a solid base, the model gives an initial intrinsic value of

$$
\$ 43.89
$$



This figure is higher than those derived from other models, but the Graham model - and thus this figure - assumes that all earnings are reinvested productively in the business. Simpson pays a dividend, which is good for shareholders, but those funds, in reality, aren't reinvested. If the model is run on a net-of-dividends earnings base of $\$ 1.70$, the resulting intrinsic value is $\$ 35.53$. But the dividends do have value to you as a shareholder, right? The present value of a 40-cent per share dividend received in each of the next 10 years is $\$ 2.46$.

So the truest Graham-model intrinsic value estimate comes out at $\$ 35.53+$ $\$ 2.46$, or $\mathbf{\$ 3 7 . 9 9}$, very much in range of the other estimates.

By the way, this example speaks to the wisdom of reinvesting earnings in a business if there are productive ways to do so.

So the Graham model, derived from the more complex model but philosophically aligned to it, can be used as computational shorthand. It doesn't allow for stages and uses a more simplistic discounting assumption. And, it can produce the same wide range of results as the other models. But it is a good shortcut - one you may be able to do in your head when looking at a number of investment choices.

## Book value and intrinsic value

A final note to help lock down the notion of intrinsic value comes in another Warren Buffett observation. Apparently tired of answering questions about how to use book value to make investment decisions, Buffett pointed out the difference between book value and intrinsic value: "Book value is what the owners put into the business, intrinsic value is what they take out of it." In another explanation offered in a

1996 Berkshire Hathaway annual report, he likened book value to college tuition paid, with intrinsic value being the income resulting from the education. The education and the dollars spent on an education mean nothing unless there is a resulting financial return. The point: It's easy for investors put too much emphasis on book value and not enough on intrinsic value.

## Chapter 13

## Running the Numbers: Strategic Financials

## In This Chapter

$>$ Understanding the importance of return on equity (ROE)
$>$ Checking out ROE components and the strategic profit formula
$>$ Looking into strategic financials: profitability, productivity, and capital structure
$>$ Considering how strategic financials and intangibles influence ROE
Exploring a framework for assessing strategic financials

chapter 12 shows that profits and growth drive intrinsic value. For any fairly priced asset to increase in value over time, the value of the returns must grow. Whether or not you indulge in intrinsic value calculations, be aware that earnings and growth do matter. The time value of money and the value of alternatives do matter. When you look at a business, you seek consistent, growing returns on a quality asset base - achieving reasonable returns without taking on unreasonable risk.

If it isn't easy to pin down growth and the value of growth, it gets a little easier to step back and identify business characteristics that drive growth. Sustained return on equity (ROE) implies sustained growth and blares out, "wellmanaged company!" This chapter examines ROE and its component drivers: profitability, productivity, and capital structure. These strategic financials represent knobs and levers that management can control to achieve growth, ROE, and, hence, intrinsic value.

This chapter shows how ROE and its component drivers all work together through a financial formula known as the strategic profit formula. This formula breaks ROE down into component parts, which can then be separately analyzed for better understanding. That understanding includes a look at the factors - financial and intangible - that drive each component. At the end of the day, you can use a checklist to evaluate ROE and its drivers.

## The Importance of ROE

ROE is, when all is said and done, a capitalist's bottom line. Simply, it represents the return on owner's equity invested in the business. As a practical matter, it's a good barometer for determining whether the company is on the right track and whether management is doing a good job and acting in the interest of its shareholders - although it can be jiggered somewhat through accounting policy and practice.

## Comparing ROE and intrinsic value

Unlike intrinsic value, ROE from the beginning doesn't purport to estimate the value of a company. You can't go through a series of calculations culminating in a per-share value estimate. But ROE - and its components - can tell whether things are healthy and moving in the right direction. Although intrinsic value is an absolute measure of company value, ROE and its components tend to be relative to past performance and to the performance of other businesses.

Using a real estate analogy, intrinsic value represents the physical value of a property - land, lumber, labor - and its ability to generate rents or other economic benefits to the owner now and in the future. Strategic value, or ROE, deals more with location, cost, and capital efficiency (the financial and intangible attributes of a property that generate success), and how that success may be viewed by the market and especially as compared to other alternatives.

Another way to look at the difference: Intrinsic value explicitly looks forward into the income-producing capability of the firm in the long run, while strategic valuation is primarily a snapshot of the present, albeit with many components that can predict future performance.


This isn't to imply that intrinsic and strategic value aren't connected. As in the adage, "where there's smoke, there's fire," where there's ROE, there's intrinsic value. Likewise, where there's sustained ROE, solid and improving strategic financials and intangibles lurk just below the surface.

## ROE versus ROTC

ROTC? A connection between military service and value investing? No, no images of value investors marching around parade grounds in brightly colored uniforms, please.

ROTC, or return on total capital, is another measure of owner returns, which has gained popularity recently. The difference, obviously, is the denominator "TC," or total capital, vs. the "E," or equity.

Total capital is owner's equity plus long-term debt. Using the more "holistic" total capital gives a more complete measure of business performance; that is, how much the company is earning on its total investment, including borrowed funds. ROTC helps investors see through the effects of leverage. If a company is growing ROE but not ROTC, chances are, the company is doing it by borrowing to fund growth-producing assets, thus leveraging the company (this can be a good thing in moderation). So many investors look at ROTC and ROE together. They should march side by side and change in unison. Some information sources like Yahoo! Finance and Value Line list both figures simultaneously.

## The Strategic Value Chain

ROE may appear to be a single number, but in fact there's a complex "chain of events" or set of factors underlying the figure. A series of business fundamentals, all linked together, leads to respectable, sustained, and growing ROE. That "strategic value" chain will become clearer in the strategic profit formula, to be presented momentarily.

## Growing to stay the same?

On the surface, a steady ROE would appear to indicate a ho-hum business. Same old, same old, year in and year out. But the truth is quite different. Many investors, Warren Buffett himself included, get pretty excited when they see steady ROE over a number of years, particularly when already at a high level, say, greater than 15 percent.
Why?
ROE is defined as net earnings divided by owner's equity. What happens to net earnings, each year, in well-managed companies? They become part of owner's equity as retained earnings. Then, over time, the denominator of the ROE equation goes up, as earnings become equity (unless a portion of earnings are paid out
as dividends). That brings the following important observations:
$\checkmark$ Maintaining a constant ROE percentage requires steady earnings growth.
$\checkmark$ A company with increasing ROE, without undue exposure to debt or leverage, is especially attractive.

In fact, over time, ROE trends towards the earnings growth rate of the company. A company with a 5 percent earnings growth rate and a 20 percent ROE today will see ROE gradually diminish toward 5 percent. A company with a 20 percent earnings growth rate and a 10 percent ROE will see ROE move toward 20 percent, as the numerator grows faster than the denominator.

## Strategic fundamentals

The links in the strategic value chain consist of the business fundamentals that directly influence ROE and are controlled or influenced by management. The links are profitability, productivity, and capital structure. When all three are strong and tight, ROE outcome is destined for success. If there is a "weakest link" (a business fundamental that is poor, failing, or declining), it can weaken the entire chain and hamper ROE indefinitely.

Strategic fundamentals are manageable business fundamentals that management can influence or control to maintain or increase ROE.

## And now, the formula

Although this formula surfaces in business schools around the country, it owes its origins to the real world. Some years back, it originated in the finance department at DuPont. It's called the "strategic profit formula" and, in some circles, the "DuPont formula."

$$
\text { Return on equity }=[\text { profits } / \text { sales }] \times[\text { sales } / \text { assets }] \times[\text { assets/equity }]
$$

It's easy to see the links in the chain: profitability, productivity, and capital structure, in sequence. Good managers work on each one, and we talk about how to do so in a minute.

You may observe the resemblance between this formula to one of those high school chemistry or physics formulas in which you take the numerator on the first term and the denominator on the last term and cancel out everything in between. Only here, intermediate terms aren't cancelled out because they tell us so much about the health of the business. For each intermediate term in the formula, we observe its value, in what direction it's going (trend), and how it compares to others in the industry. See Figure 13-1.

## Strategic Profit Formula



## ROE value chain components

You probably guessed that each element in the ROE equation has its own component drivers. That is, specific business attributes and characteristics drive profitability, productivity, and capital structure. Each equation component forms a major link in the value chain, and those components have a causal "chain" of their own.

For instance, strategic financials such as gross margins and expenses drive profitability. Asset levels, quality, and turnover drive productivity, while debt and new capital requirements drive capital structure. Then, in turn working back up the value chain, such strategic intangibles as market position, customer "share" and loyalty, brand strength, and supply chain strength drive those margins and expenses.

Figure 13-2 illustrates the strategic value chain. ROE, the result, is shown as a result or outcome at the right-hand side of the figure. Working backward toward the left, the figure lists a few examples of value chain components that drive ROE components and thus ROE. They're grouped into strategic financials - measurable financial factors - and strategic intangibles mostly nonmeasurable market and business characteristics that drive them. Strategic financials are covered in this chapter and in Chapter 10, while strategic intangibles are explored in Chapter 14.

Figure 13-2: The strategic value chain.


The value investor works backward through the ROE value chain to find good or bad in ROE drivers and the things that influence those drivers. It's a good framework to analyze a business, and the checklist offered at the end of this chapter will help.


Value investing approaches buying a stock in much the same manner as buying a business. Now that premise should become quite clear. Breaking down the strategic value chain, you quickly see how value investing requires an understanding of not only the financial fundamentals but also the market and business fundamentals that drive them. As an investor, you need to wear a marketing and management hat, not just a financial one. Hope it fits!

## Quality checks

If you apply for a job, you may have to take a drug test. Does passing the drug test mean that you get the job? Nope. Does failing the drug test mean that you won't get the job? You bet. So how does this apply to investing?

When you look at strategic financials and fundamentals, some characteristics of the business are normally expected to be okay, but if they're off course, they may raise red flags. They can be looked at as sort of a final quality check. For example, low debt doesn't necessarily indicate high value, but frequent trips to the capital markets for debt or stock sales may indicate capital starvation and "un-value." And continuing with the drug test metaphor, the "substances" you "test" frequently are addictive to bad management: overuse of acquisitions, write-offs and write-downs, debt, and stock sales, which are used to pad numbers and fix problems arising from bad performance.

It's a good idea to do such "drug tests," or quality checks, for each of the primary ROE components. These quality checks are usually painless pass/fail tests, not detailed assessments.

## The Simpson Example

Now, back to the Simpson Manufacturing example to take apart ROE and the strategic value chain. Figure 13-3 shows a sample ROE breakdown based on five years of data for Simpson.

## Where the facts come from

The set of numbers in Figure 13-3 provides all that's needed to start a strategic financial analysis for Simpson. But where do you get these numbers? It depends on the company and how far back you want to go.

Figure 13-3:
ROE and strategic profit formula numbers for

Simpson
Manufactur-
ing.


Most 10-K annual reports provide at least three years of historical information to a level of detail sufficient for the analysis. Some provide more in a backup table, as Simpson has shown in Figure 13-4. Figure 13-4 is a five-year fact table containing all data needed for the top-level ROE analysis in Figure 13-3.

As will be shown shortly, this table does not provide enough factual detail for the more in-depth "deconstruction" of sales-to-assets shown later in the chapter. Key figures like accounts receivable and inventories aren't broken out. So we have to dig into prior annual reports to get the history - not too difficult a task with today's availability of annual reports online at company Web sites. For some analyses, facts provided by Value Line, which shows a lot of history but perhaps not enough line item detail, will help, and you can also depend on portals like Yahoo! Finance for some of the basic facts, especially for a three-year analysis.


Be wary of extraordinary items and write-offs that can corrupt individual numbers and trends. When asset productivity gains result from cutting out slop (not from better utilization), it doesn't count as much. It may be unsustainable and may even mask bad management practice.

## 224 Part III: So You Wanna Buy a Business?

## SIMPSON

## Manufacturing <br> COMPANY

## Statements of Operation Data:

Net Sales
Cost of sales
Gross profit

| 2006 | 2005 | 2004 | 2003 | 2002 |
| :---: | :---: | :---: | :---: | :---: |
| \$ 863,180 | \$ 846,256 | \$ 689,053 | \$ 548,182 | \$ 465,474 |
| 517,885 | 515,420 | 404,388 | 318,927 | 267,562 |
| 345,295 | 330,836 | 293,665 | 229,255 | 197,912 |

Research and development and other engineering expense
Selling expense
General and administrative expense
Loss (gain) on sale of assets
Income from operations

| 19,254 | 14,573 | 13,029 | 10,975 | 8,995 |
| ---: | ---: | ---: | ---: | ---: |
| 72,199 | 64,317 | 58,869 | 49,669 | 44,581 |
| 91,975 | 100,261 | 90,959 | 70,434 | 58,076 |
| 457 | $(2,044)$ | $(409)$ | 104 | 177 |
|  | 161,410 | 153,729 | 131,217 | 98,073 |

Income (loss) in equity method investment, before tax
Interest income, net
Income before income taxes

| Provision for income taxes |  | 62,370 |  | 57,170 |  | 50,094 |  | ,150 | $35,134$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minority interest |  | 166 |  | - |  | - |  | - |  |  |
| Net income | \$ | 02,496 | \$ | 98,394 | \$ | 81,508 | \$ | ,562 | \$ | ,934 |
| Basic net income per share of common stock | \$ | 2.12 | \$ | 2.05 | \$ | 1.70 | \$ | 1.23 | \$ | 1.06 |
| Diluted net income per share of common stock | \$ | 2.10 | \$ | 2.02 | \$ | 1.67 | \$ | 1.21 | \$ | 1.05 |

Cash dividends declared per share of common stock

## Balance Sheet Data:

Figure 13-4:
Working capital
Simpson
Manufacturing five-year summary.

Property, plant and equipment, net Total assets
Long-term debt, including current portion Total liabilities
Minority interest in consolidated VIEs
Total stockholders' equity


| \$ 399,082 | \$ 342,496 | \$ 268,711 | \$ 269,498 | $\$ 238,277$ |
| ---: | ---: | ---: | ---: | ---: |
| 197,180 | 166,480 | 137,609 | 107,226 | 97,397 |
| 735,334 | 659,715 | 545,137 | 461,692 | 396,401 |
| 665 | 5,114 | 2,976 | 6,292 | 6,738 |
| 82,459 | 96,249 | 82,212 | 61,388 | 47,217 |
| - | 5,337 | - | - | - |
| 652,875 | 558,129 | 462,925 | 400,304 | 349,184 |

## Running the numbers

Now for the math. Here's the formula:
Return on equity $=[$ profits $/$ sales $] \times[$ sales/assets $] \times[$ assets/equity $]$

The components for fiscal year 2006 (dollars in millions):
Profitability: profit/sales $=\$ 102.5 \mathrm{~K} \div \$ 863.2 \mathrm{~K}$, or $\mathbf{1 1 . 9} \%$
Productivity: sales/assets $=\$ 863.2 \mathrm{~K} \div \$ 735.3 \mathrm{~K}$, or $\mathbf{1 . 1 7}$
Capital structure: assets/equity $=\$ 735.3 \mathrm{~K} \div \$ 652.9 \mathrm{~K}$, or $\mathbf{1 . 1 3}$
Multiply these together, and you get 15.7 percent ROE for the year 2006.

## Okay, so now what?

As you become familiar with this analysis, you'll come to realize that none of the intermediate ratios - profit/sales, sales/assets, or assets/equity - in and of themselves, reflect outstanding performance. A quick view of the "competitors" page will show that profit margins are higher than industry averages but they aren't outstanding - and it's hard to find a true direct competitor to Simpson.

Asset productivity and capital structure figures feel good for a manufacturer from a common sense perspective (assets less than annual sales, debt less than equity), but closer examination with other manufacturers is a good idea.

If these figures felt out of line, a deeper analysis would also be revealing for instance, is the company using debt to buy back shares or to fund daily operations? The answer sends strong signals about company health and intentions.

What is compelling is the steadiness and slight strengthening in all drivers: profitability, productivity, and capital structure. The business appears to be hitting okay on all cylinders in balance, especially given the 2006-2007 downturn in construction. Now each ROE driver is examined independently with comments on important factors within each driver.

## Profitability

Profit/sales, or net profit percent, is the primary profitability measure. For Simpson, growth in net profit percent from 11.2 percent to 11.9 percent in five years is a good story, but it isn't the whole story. It's a better story than just nominal earnings dollar or EPS growth; it says that the business is becoming more productive in generating earnings.

## Financial drivers

When looking at profitability gross margin, SG\&A, and operating profit percent are closely tracked by most investors and analysts.

## Gross margin

Gross margin tells a lot about a business's success in managing its sales and direct costs of producing product and services. A company on top of its marketing and production game usually produces improving margins.

But market characteristics and selling aggressiveness can work against margins. Intuitively, you may guess that increased volumes lead to increased margins, as fixed costs are absorbed and economies of scale work in their favor. However, this isn't always the case. A company often must make price concessions to achieve sales goals. And aggressive volume building also takes its toll on operating costs (not part of gross margin) in the form of marketing expenses and sometimes interest expense to expand the level of business.


To some extent you must understand the industry in which you want to invest. Simpson is in the construction industry, notorious for boom-and-bust cycles, although Simpson has a healthy remodeling and public-sector business (earthquake retrofits and the like) that somewhat dampen the cycles. One would expect sales and gross margins to soften during slow years, which could explain the recent softness in gross margins. As will be seen shortly, however, Simpson adjusted for the slowness by reducing selling, general, and administrative (SG\&A) as a percentage, keeping operating margins strong and, by the way, signaling competent management.

## Selling, general, and administrative

SG\&A, although not directly tied to net profit percent, tells a lot about how management controls expenses and how expenses are tied to business production. SG\&A normally includes marketing expenses such as advertising and customer incentives, in addition to more traditional selling salaries, commissions, and so on. SG\&A percentage is the total SG\&A cost divided by sales or revenues. You typically have to calculate this percentage yourself, as few information sources provide it directly. It is an important part of total operating expenses - and thus operating profit percentage. Also be aware that different companies define SG\&A differently, so look to annual reports for clarification.

When SG\&A increases faster than sales it's a bad sign, especially in a maturing industry. Although investors tolerate short-term expenditures in marketing campaigns, store openings, or technology platforms, these can't go on forever. Chronic percentage increases in SG\&A should be taken as a red flag.

In fact, if a company is realizing the benefits of economies of scale, SG\&A expenses should grow at a rate less than sales. SG\&A growth even matching sales persistently is a yellow flag. As a general rule, most analysts look for sustained SG\&A growth rates at 80 percent or less of the sales growth rate.

Simpson has managed SG\&A well, dropping it from 22.1 percent of sales in 2002 to 19 percent in 2006. If sales rise as construction spending recovers, one would expect SG\&A to decline further as a percentage.

## Operating profit

SG\&A is part of this important figure, but certainly not all. Depreciation, amortization, and certain facility and employee costs can all influence operating expenses. A company in control of gross margin and operating expenses will show increased operating profit. Even though Simpson endured slightly deteriorating gross margins, focus on total profitability and tight control of SG\&A and other operating expenses resulted in keeping operating profit percentages relatively flat.

## Quality checks

As with all major ROE components, it's a good idea to test them for signs of trouble or inherent weakness. Here are three quality checks for profitability:
$\checkmark$ Overdependence on acquisitions for growth: Companies sometimes get so caught up in building the top line that they resort to painful and expensive acquisitions to do it. Profitability usually suffers.
$\checkmark$ Excessive goodwill: Often working hand-in-hand with acquisitions, growth in goodwill or a growing gap between total stockholder equity and "net tangible assets" (from Yahoo! Finance Balance Sheet page or elsewhere) can signal trouble in the form of future write-offs.
$\checkmark$ Overdependence on expansion: Growth is good, but if the core business isn't growing or is declining, that's a bad sign. Try to sniff out "organic growth" - that is, growth not sourced from new outlets (same store sales, for retail) or from acquisitions. If sales are expanding, but profits aren't, it's a sign that the most recent expansions aren't working, although it depends on the industry (a Starbucks outlet will produce returns more quickly than an aircraft plant).
Cash flow and changes in book value march with changes in earnings: If earnings rise but cash flow doesn't and book value doesn't, over time, one must question the quality of earnings.

## Intangible drivers

There's more on this in Chapter 14, but it's worth introducing a few of the key intangibles driving profitability here, particularly gross margins. Market position is a vital influencer. Market leadership, brand dominance, public image, and pricing power bear the seeds of improved gross margin, while resource acquisition power directly affects costs, which also defines gross margin. Businesses dependent on tight markets for supply invariably suffer in profitability, whether because of labor, fuel, money (as in banks), you name it.

As is more closely followed in Chapter 14, Simpson has a dominant position in the construction materials industry with a virtual lock on the connectors business. Like Kleenex or Starbucks, the Simpson and "Strong-Tie" brands have become virtually synonymous with the product, and competition is far less of an issue than the business cycles in the industry it supports. Supply steel - may present an issue, and, like most manufacturers, Simpson does have to pay attention to its channels of distribution. But for the most part, marketplace and management strength signals are positive.

Earnings quality is also an issue, and the quality of financial reporting may also be considered an intangible attribute of profitability. So a quick spot check of cash flows and changes in book value as they relate to earnings is worthwhile. For Simpson, cash flow hasn't followed earnings too closely because of inventory changes, but book value growth has followed pretty closely without large increases in goodwill or other intangibles, suggesting that financial reporting is fairly robust.

## What to look for

Look for improving profitability measures and be able to explain those that aren't improving. You also need to understand market forces and intangibles that drive profitability factors and look at them as leading indicators of future performance. Finally, check with the "neighbors" to see how other businesses in the industry are faring.

## Productivity

Productivity measures tell us how well businesses deploy and use assets. Assets are resources, and when it comes down to it they have a single purpose: generating profitable sales. So you may as well measure how well this is done. All things considered, a dollar of sales produced on 50 cents worth of assets is better than the same company producing a dollar of sales on a dollar of assets. Such an observation shows prima facie asset efficiency and also
indicates less asset amortization expense later, which in turn increases profits and cash returns to investors. Obviously, asset productivity figures vary by industry, as different industries require different assets and differing levels of asset investment to do business.

Sales/assets is the primary measure of asset productivity, and is simply the amount of sales generated per asset dollar deployed.

## Financial drivers

Simpson did about $\$ 1.17$ in sales for every dollar deployed in assets. Not too bad, and in fact comparable to slightly below larger competitors. The trend is basically flat if you disregard the 2006 sales growth slowdown, but a closer look at the numbers (which we'll get to in a moment) shows a modest inventory increase. That raises a slight caution flag. We'd hope that the amount of inventory - and thus assets - required to support sales would return to the trend line, thus bringing the sales/assets ratio closer to 1.3.

Here are the two traps to avoid when looking at sales/assets:
$\checkmark$ Don't misinterpret changes due to write-offs. If Simpson or any other company took the plunge to purge a big chunk of overvalued or nonexistent assets from the books, that would show up as an "improvement" in sales/assets. Not! Be careful to distill major changes in asset deployment that create no change in the business.
$\checkmark$ Don't read too much into the absolute figures. Sales/assets will be huge for a Microsoft or an Oracle, reporting high sales on a small asset base, while a large industrial corporation, railroad, or electric utility requiring a large asset infrastructure will appear to have poor asset utilization. Be careful about comparing across industries. Good comparisons - and trends - are most important.

## Deconstructing ROA

Chapter 10 introduces the return on assets, or ROA ratio. Many popular information services show ROA. If you're wondering why ROA doesn't make the grade as a first-tier ROE component, here's why: ROA really does too much.

ROA is net profit divided by total assets, which you'll recognize as the first two links in the ROE chain combined. (Here's the math: ROA, or profit/assets = profit/sales $\times$ sales/assets.) ROA is valid and valuable, but it's more meaningful to look at the two links separately.

Why? Because the first measure, profit/sales, has more to do with market power and cost structures; while the second, sales/assets, has more to do with resource requirements and deployment. Deconstructing ROA provides a more bottoms-up, inside-out view of the business.

The sharp reader will note that if ROA and profit margin figures are supplied by an information portal such as Yahoo! Finance or Value Line, one can deduce total asset productivity. Bad ROA and good margins indicate bad productivity, and that will likely catch up with margins sooner or later.

## Deconstructing sales/assets

An obvious key to understanding total sales/assets is to assess utilization or productivity for individual assets making up the total asset base. Accounts receivable, inventory, and fixed assets are the major links in this value chain Figure 13-5 shows how you may "take apart" sales/assets.

The analysis is similar to the top-line sales/assets computation. Investors look at turnover ratios, specifically sales/accounts receivable, sales/inventory, and sales/fixed assets. (For more, see Chapter 10.)

## Accounts receivable turnover

How many dollars in sales does the business generate per dollar of accounts receivable investment? A business on top of its receivables generates more and more, through faster collections and extending less credit altogether. In 2006, Simpson generated $\$ 9$ in sales for every dollar of receivables - the highest in 5 years, and significantly higher than the low of $\$ 7.80$ in 2004.

| DECONSTRUCTING SALES/ASSETS: SIMPSON MANUFACTURING |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2006 |  |  |  |  |  |  |  |  |  |  |
|  | 2006 |  | 2005 |  | 2004 |  | 2003 |  | 2002 |  |
| Revenue | \$ | 863.1 | \$ | 846.3 | \$ | 698.1 | \$ | 548.2 | \$ | 465.5 |
| Total Assets | \$ | 735.3 | \$ | 659.7 | \$ | 545.1 | \$ | 461.7 | \$ | 396.4 |
| SALES/ASSETS |  | 1.17 |  | 1.28 |  | 1.28 |  | 1.19 |  | 1.17 |
| Trade Accounts Receivable | \$ | 96.0 | \$ | 101.6 | \$ | 89.8 | \$ | 66.7 | \$ | 55.3 |
| Sales/Accounts Receivable |  | 9.0 |  | 8.3 |  | 7.8 |  | 8.2 |  | 8.4 |
| Inventory | \$ | 217.6 | \$ | 181.5 | \$ | 192.9 | \$ | 106.2 | \$ | 93.1 |
| Sales/Inventory |  | 4.0 |  | 4.7 |  | 3.6 |  | 5.2 |  | 5.0 |
| Fixed Assets (PP\&E) | \$ | 197.2 | \$ | 166.4 | \$ | 137.9 | \$ | 107.2 | \$ | 97.4 |
| Sales/PP\&E |  | 4.4 |  | 5.1 |  | 5.1 |  | 5.1 |  | 4.8 |
| Data from Simpson 2006, 2004, 2003 Annual Reports |  |  |  |  |  |  |  |  |  |  |



When examining statements for accounts receivable, use "trade" accounts receivable - those that arise from and support the normal course of business. Avoid "other" receivables, which typically arise from sale of a business or specific agreements to finance customer purchases. Although these financings can be important to monitor, they don't come from "business as usual" for most companies.

## Inventory turnover

Inventory turnover works like receivables turnover. A business in control of finished goods, raw material, and production inventories shows greater sales per dollar invested in inventory. With the inventory increase mentioned previously, Simpson sales-to-inventory dipped a bit to 4.0 from 4.7 in 2005 and figures over 5.0 in 2002-2003. Stated differently, inventory "turns" four times a year - not too bad for a manufacturer, but the trend bears watching.

## Fixed asset turnover

And another turnover measure, this time for fixed assets or property, plant, and equipment (PP\&E), the Simpson story is pretty steady, but the figure did dip a bit to $\$ 4.40$ in sales per dollar of PP\&E in 2006 - another figure meriting comparison with similar businesses and tracking trends.


You may encounter situations where total sales/assets show only modest gains, while components show larger improvements, up to 50 percent. In some cases this can be caused by increased cash, which is also an asset and part of the denominator base. Of course, increasing cash is normally a good thing.

## Unit productivity measures

If the figures are available, you can review sales per facility, sales per store, same-store-sales growth, revenue per mile of track or passenger seat flown, or sales per square foot, depending on the industry. You can also track sales per employee, a handy metric for overall efficiency and management competence. Finding historic data for these factors can be challenging, but such unit productivity metrics are good for comparing with other firms in the same industry once you understand them.

## Quality checks

Asset productivity measures themselves are pretty good at sniffing out quality problems - if a company has the wrong assets or poor quality assets, it generally won't generate as many sales or as much income. Value investors should look at write-offs and write-off history. If a company seems to always be writing off some inventory or writing down accounts receivable with impairment charges and reserves, asset quality may be called into question.

Sometimes it's a more subjective assessment. Do company facilities look modern and efficient? Does a company keep up with trends in information technology and supply chain management? These questions can be hard to answer because they are more intangible, but closely followed businesses will usually yield some clues.

## Intangible drivers

Many factors support, verify, or could be leading indicators of asset productivity. As you can see in Chapters 7 through 9 , asset quality is greatly influenced by depreciation and amortization policies. Channel structure (direct, single-tier retail, two-tier wholesale-retail, OEM, or other) can greatly influence the amount of assets required, particularly receivables and inventory. And of course, the base nature of the business - the cost structure - can tell a lot. A steel mill has different asset needs and utilization than a nail salon.

## What to look for

Looking at trends within individual metrics makes sense - improving values at all tiers is a healthy thing. Give special credit to consistent improvement through business cycles. Depending on the industry, you may balance emphasis on inventory, accounts receivable, and fixed assets differently. For example, you may give more attention to inventory and store utilization when looking at a retailer, while paying more attention to accounts receivable when evaluating an industrial supplier. And it never hurts to compare companies to other companies, so long as you're comparing apples to apples.

## Capital Structure

When looking at capital structure, you're trying to determine two things:
$\checkmark$ Is the business a consumer or producer of capital? Does it constantly require capital infusions to build growth or replace assets? Warren Buffett - and many other value investors - shun businesses that cannot generate sufficient capital on their own. In fact, one of the guiding principles behind Berkshire Hathaway is the generation of excess capital by subsidiary businesses that can be deployed elsewhere.
$\checkmark$ Is the business properly leveraged? Overleveraged businesses are at risk and additionally burden earnings with interest payments. Underleveraged businesses, while better than overleveraged, may not be maximizing potential returns to shareholders.

## Assets/equity

Assets/equity is the primary capital structure metric. Per dollar of owner's equity invested, how many dollars of productive assets are deployed in the business?

For Simpson, approximately $\$ 1.13$ of assets is deployed for every $\$ 1$ of owner's equity on the books. The figure has stayed more or less steady for five years, implying no major changes in debt levels - and also implying that cash funds generated are being reinvested in the business at about the same rate that they're being generated. If a company were expanding its asset base faster than it could pay for the assets with internally generated funds (through debt), the assets/equity ratio would be growing. So steady, for most businesses, is good.

## Capital sufficiency

Capital-hungry companies are sometimes hard to detect, but there are a few obvious signs. Companies in capital-intensive industries, such as manufacturing, transportation, or telecommunications, are likely suspects. Here are a few indicators.

## Share buybacks

The number of shares outstanding can be a real simple indicator of a capitalhungry company. A company using cash to retire shares - if acting sensibly is telling you that it generates more capital than it needs. On the other hand, if you look at a company like IBM, ROE has grown substantially, and massive share buybacks are a major reason.


When evaluating share buybacks, make sure to look at actual shares outstanding. Relying on company news releases alone can be misleading. Companies also buy back shares to support employee incentive programs or to accumulate shares for an acquisition. Such repurchases may be okay but aren't the kind of repurchases that increase return on equity for remaining owners.

## Cash flow ratio

Recall from Chapter 10 the cash flow ratio, where you see whether cash flow from operations is enough to meet investing requirements (capital assets being the main form of investment) and financing requirements (in this case, the repayment of debt). If not, it's back to the capital markets. This figure is pretty elusive unless you have - and study - statements of cash flow.

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## Lengthening asset cycles

If accounts receivable collection periods and inventory holding periods are lengthening (number of days' sales in accounts receivable and inventory see Chapter 10), that forewarns the need for more capital.

## Working capital

A company requiring steady increases in working capital to support sales requires, naturally, capital. Working capital is capital.

## Leverage

Leverage and debt assessments are perpetually subjective and are discussed continuously by financial and credit analysts. Some debt is usually regarded as a good thing, for it expands the size of the business and hence the return on owner capital. But too much is too much. Where do you draw the line?

Guiding principles include comparative analysis and vulnerability to downturns. Debt must always be paid back, whether business is good or not so debt stops being okay when it's too large to cover during a downturn or business strategy change.

Here are a couple of supporting metrics:

## Debt to equity

This old standard is commonly used to get a feel for indebtedness, particularly in comparison with the rest of an industry. The calculation is simple total long-term debt divided by equity. The Simpson story is healthy, with only $\$ 338,000$ in long-term debt beyond the portion currently due, against $\$ 652.9$ million in equity - the company is virtually debt-free.


As a consumer, you know such a debt to equity ratio well below 1 percent is healthy, and so it is for most businesses too. But business analysts may wonder if Simpson could produce a greater return by borrowing and putting more assets in play. Evidently management has decided that it isn't worth it, so hasn't. That's a better decision than borrowing funds to make the wrong investments. The investor is left to agree or disagree with management's judgment, but debt-free companies - just like debt-free consumers - come out ahead more often.

## Interest coverage

One way to look at whether a business has the right amount of debt is to look at how much of its earnings are consumed to pay interest on it. Interest coverage is the ratio of earnings to annual interest, a rough indication of how solvent or burdened a company is by debt.

When looking at interest coverage, a good question to ask is this: What happens to coverage if, say, business (sales) drops 20 percent, as in a deep recession?

## Quality checks

One could develop a large quality checklist in this category. In fact, the older Depression-influenced checklists of Ben Graham and followers placed great emphasis on financial strength, liquidity, debt coverage, and so on. It was the tune of the times. Credit analysts today continue to check all manner of coverage and debt ratios, but for most companies reporting a profit, it may be overkill. Still, a few checks provide a margin of safety and a further test of whether the company has an insatiable demand for capital:

Are current assets (besides cash) rising faster than the business is growing? This ties to the asset productivity and turnover measures discussed earlier in this chapter, but it's worth one last check to see whether a company is buying business by extending too much credit. More receivables result from extending credit, while losing channel structure and supply chain battles (customers and distributors won't carry inventory; suppliers are making them carry more inventory) result in increased inventories. This could be a problem with Simpson. In a soft construction environment, distributors and retailers like Home Depot and Lowe's simply aren't taking as much inventory, pushing it back up the supply chain. The risk is greater capital requirements and expensive impairments downstream.
$\checkmark$ Is debt growing faster than the business? Over a sustained period, debt rising faster than business growth is a problem. If the owners won't kick in to grow the business, and if retained earnings aren't sufficient to meet growth, what does that tell you?
$\checkmark$ Repeated trips to the financial markets? If the business continually has to approach the capital markets (other than in startup phases), that again is a sign that internally generated earnings and cash flows aren't sufficient. Once in a while it's okay, but again you're looking to weed out chronic capital consumers.

## Intangibles

Several intangibles enter in here - some specific, some conceptual. Credit ratings and changes in credit ratings are a good place to start. Declining credit ratings mean that someone somewhere is less secure with the capital structure as currently deployed. Capital intensity is another, particularly
changes in capital intensity. The semiconductor business happily churning out DRAM becomes less happy when equipment must be replaced with more expensive equipment more often.

A company that faces its finances head on is in better shape than one that plays games, delays write-downs, uses "good" debt to finance "bad" assets, and the like. Companies shouldn't borrow long term to finance short-term working capital increases, such as inventory. Nor should companies borrow short term to finance long-term assets - doing so reflects some impairment in the ability to borrow long term. Some companies may also use gimmicks to avoid showing long-term debt, anything from off-balance sheet entities to short-term notes or payables where long-term debt may have been more appropriate. There are specific indicators and a lot of general ones, such as the thickness of $10-\mathrm{K}$ reports mentioned in Chapter 6, the tone of press coverage, the departure of CFOs, and so forth.

## What to look for

Again - this can't be said enough — look for signs that the company will be a healthy user and producer - and not a chronic consumer - of capital. Trends, comparisons, quality checks, and a good understanding of "goesinta's and goes-outa's," particularly from the statement of cash flows, are good to have.

## Finally - A Sample

Finally, all analysis works better if you have a framework and an example to work with. To that end, Figure 13-6 shows a sample strategic financial analysis for Simpson Manufacturing.

The format and structure of the analysis is a matter of personal preference you can follow the model shown or create one of your own. Many experienced investors shun the spreadsheet in favor of specific tests of favorite numbers, or numbers telling of the industry, such as asset utilization in a capital intensive industry.

Finding an approach that works best for you is part of developing your value investing style.
Figure 13-6:
Sample strategic financial analysis for Simpson Manufacturing.

| STRATEGIC FINANCIAL ANALYSIS |  |  |  |  |  |  | COMPANY: Simpson Manufacturing <br> COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 200620052004 |  |  |  |  |  |  |  |
|  |  |  | 2005 | 2004 |  |  |  |
|  | TOTAL ROE | 15.7\% | 17.6\% | 17.6\% | +/0 | + | long term trend favorable, $14.8 \%$ in 2002 |
| PROFITABILITY | PROFIT/SALES | 11.9\% | 11.8\% | 11.7\% | + | + |  |
|  | Gross Margin | 40.0\% | 39.1\% | 42.1\% | +/0 | +/0 |  |
|  | SG\&A \% | 19.0\% | 19.4\% | 21.5\% | + | + | nice, especially in difficult sales environment |
|  | Operating Profit \% | 18.7\% | 18.2\% | 18.8\% | +/0 | +/0 |  |
| PRODUCTIVITY | SALES/ASSETS | 1.17 | 1.28 | 1.28 | 0 | 0/- |  |
|  | Sales/Accounts Receivable | 9.0 | 8.3 | 7.8 | + | + |  |
|  | Sales/Inventory | 4.0 | 4.7 | 3.6 | 0/- | - | need to watch inventory levels in 2007 |
|  | Sales/Fixed Assets | 4.4 | 5.1 | 5.1 | - | 0 |  |
| CAPITAL STRUCTURE | ASSETS/EQUITY | 1.13 | 1.18 | 1.18 | 0/- | + | not as leveraged as some, but like no-debt position, share buybacks |
|  | Net share buybacks | yes | yes | yes | + | + |  |
|  | Cash Flow Ratio | 1.21 | 4.58 | 0.26 | +/0 | +/0 | again, watch the inventory figures - they make or break cash flow |
|  | Debt/equity | <1\% | <1\% | <1\% | + | + |  |
|  | Interest coverage | NM | NM | NM | + | + |  |
| FINAL ANALYSIS |  |  |  |  | +/0 | + | like increasing profitability even in difficult environment, no debt, longer term trends |

## Big green in Big Blue

One of the best ways to understand a concept or approach to investing is by example. It's hard to find a "pure" example of strategic financial excellence culminating in a world-class ROE performance. A search of typical "value" businesses, including Simpson Manufacturing or even in the Buffett/Berkshire portfolio, yields mostly mixed results. Companies may perform well and indeed have ROE in their sights, but difficult business conditions or changing markets make actual performance in all areas and "drivers" a mixed bag.
The first edition of Value Investing For Dummies identified IBM as a standout ROE performer, both in actual ROE performance and in management dedication to the task. The numbers still show IBM to be an ROE superstar.
Using Value Line as the source, IBM's ROE was a paltry 5 percent in the 1991-1993 timeframe. At that point, now-retired chairman and CEO Louis Gerstner took over. Through a balanced
combination of profitability, productivity, and capital structure initiatives, ROE rose quickly to the 20-25 percent range in 1995, and has been over 30 percent for most years since. Even maintaining ROE at a steady figure requires performance improvement, unless all returns are paid to shareholders.

Share buybacks have been one of the keys to ROE performance. When Gerstner took over, IBM had about 2.3 billion shares outstanding. Today, that figure hovers at about 1.5 billion IBM has retired about a third of its shares. Meanwhile, per-share cash flow has risen from about $\$ 3$ to over $\$ 10$ per share.
Looking at IBM's track record, it's clear that Gerstner placed particular emphasis on managing ROE and its components. He managed the owner's bottom line - not just sales growth, earnings reports, and image. He took the concept of ROE to heart.

## Chapter 14

# Beyond the Numbers: Strategic Intangibles 

## In This Chapter

Understanding the difference between good and great
$>$ Looking at market position and power
Taking supply chain and channel power into account
$>$ Evaluating a company's management and ownership

$\omega$arren Buffett famously said, "If you gave me $\$ 100$ billion and said, 'Take away the soft drink leadership of Coca-Cola in the world,' I'd give it back to you and say it can't be done." This quote underlies the essence of Chapter 14 - the difference between a business and a mere set of assets, liabilities, and owner's equity.

Chapter 14 may spell relief for those of you who slogged along through the numbers stuff in Chapters 12 and 13. This chapter deals with the more intuitive, cerebral, right-brained world of marketing and management intangibles. You'll learn to think like an owner and manager of a whole business, not just a set of numbers.

So why are intangibles so important? Because so much of what makes excellent businesses excellent transcends the arcane world of factories, storefronts, products, and packages. Anyone can make a hamburger, a cup of coffee, or a beverage with water, sugar, and a few flavorings. Anybody with a few tens of millions can start an airline or retail chain. But everyone knows that there's something more that turns the McDonald's, Starbucks, and CocaColas of the world into the great businesses they are. That "something" is the set of intangibles that go with the business. Intangibles are often the greatest, most powerful, and most productive set of assets any company can own.

Really, it's the difference between "viable" - or even "good" - and "great," the difference between Michael Jordan and all those other guys. Although the original Ben Graham value school set its sights on cheap, safe assets, the evolved Buffett school goes beyond that to identify, appreciate, and appraise the intangibles that make great businesses great. The words of the late money
manager and Buffett disciple George Michaelis, discussing newspapers and television stations, say it all: "Such businesses tend to have a high return on book equity. Why? Because they are earning not only on their tangible assets but on the intangible ones as well."

Intangibles come in all shapes and sizes. Every company has different intangibles. This chapter discusses marketing and management tenets that separate "great" from "good." Marketing tenets include franchise, brand, position, and customer power. Management tenets include competence, independence, and style. Ownership - who owns the company and especially whether management "eats its own cooking" - are important. These intangibles are clearly strategic in the creation of value in the business and return for the shareholders. And most of them can be controlled or influenced by a good management team and strategic vision. This chapter gives a framework for appraising a company's intangible value.

## Good to Great

It isn't often that one book writer borrows a title from another, but here it's irresistible. The famous Jim Collins book was aimed at corporate managers, but clearly it gives a good model for investing, too. Following the premise that investing should be approached like buying and owning a business, we'd only want to buy a "great" business, right? So separating the great from the good, as Collins does, becomes a first priority.

## Lollapalooza

What's that word again? You've come all the way from "compounded, discounted returns on investment" to "lollapalooza." Lollapalooza effects are the "really big effects that come from large combinations of factors." Charlie Munger used the term and defined it this way for an executive seminar to describe the ascent and future of Coca-Cola. Engineers use it to describe flight, doctors use it to describe treatments, and art critics use it to explain the success of really great art. We follow Munger's path to learn to evaluate the "whole is greater than the sum of the parts" synergies that really great intangibles add to really great businesses.


Lollapalooza (noun, slang) is defined as an extraordinary or unusual thing, person, or event, or an exceptional example of something.

## A "great" approach to value

The concept of intangibles is somewhat of a departure from the traditional "value" approach. Most value investors consider a company a good value when it has already established itself, achieved stellar earnings, earnings stability, asset quality, and the like, and is selling at a reasonable price. All true - these are indeed important ingredients in the value equation. But a broader definition of value can well be proposed and is important especially in today's era of rapidly paced, global businesses. A company can be a good value if it has "great"
characteristics - even if it hasn't matured to the point of producing the promised returns. Why? Because it has what it takes to produce financial value longer term. Hence, companies like Starbucks, CarMax, and even Google in the early days can be considered great values if selling cheap relative to the factors that make them great. They possess competitive advantages, mostly intangible, that others simply don't have. In short, growth stocks can be value stocks - as shown in Chapter 12 and again in Chapter 16.

## Beyond the numbers

So far, we've reviewed mainly quantitative methods for evaluating businesses. But now, quantifying intangibles is at best elusive, and really for the most part beside the point. Such things as market share, degree of management ownership, and control can be quantified. But these numbers are merely details. The point is to size up marketing and management phenomena and assess the lollapalooza potential as it may help the business. Market and customer psychology, history, and corporate personality finally move to center stage.

Like other parts of the value framework, status, trends, and industry comparisons are important. But happily at last, you're onto something that the human mind can do better than a desktop PC.

## Leading indicators

Intangibles should and usually do enhance value. Market power allows greater prices to be charged for the same product produced at greater cost efficiency, producing more profit and return on equity. If you start with labor, material, and overhead and add lollapalooza, you'll likely get above average profits and returns.

That's the point, but it isn't the only point. Those who caught on to the last three chapters realize that intangibles can be a good leading indicator of things to come - and numbers to come. Good and improving brand image, reputation, and popularity beget better sales, stronger pricing, and other good things downstream. Ignoring actual numbers for a minute, can you see the potential for a Starbucks or a Panera Bread or a Tiffany's or a Polo Ralph Lauren built on reputation, popularity, and word of mouth?

On the flip side, a blown public reputation spells disaster. Who thinks owners of Bridgestone/Firestone, Ford, or Countrywide Financial will benefit from any lollapalooza effects any time soon? For those companies, business and share value will be the sum of the parts, nothing more, and quite likely something less until investors feel the storm has passed.

Before deciding what revenue and earnings growth numbers to apply to value a company, a conscious appraisal of intangibles makes sense.

## Beyond your windshield

How do you do a lollapalooza assessment? Pure information sources are few and far between. Mainly, the idea is to keep your antennae up and tuned in at all times. Tune into the business world by reading company communications, checking out company Web sites, and following the commentaries of analysts and journalists. Beyond that, good investors walk Main Street to observe what common folks are saying, thinking, and doing.

What should you look for? Bottom line: market power and management excellence. Yes, you can have one without the other, but it's a tougher road.


Companies with excellent management but poor market power will stay ordinary, while companies with poor management and excellent market power will typically underperform.

Although it is possible to find value in technology companies, that isn't really the point. The point is that value investing requires developing a solid understanding of the company and of the business to which you plan to commit capital. If you can't understand the business, understanding the intangibles and their effects on the financials will be difficult.

A company whose business is creating products that "leverage the capabilities of fibre channel technology to better manage the growth of mission-critical data by overcoming the limitations of the traditional small computer system interface (SCSI), which is a captive storage architecture" is probably outside, way outside, the circle of competence for most people. When in doubt, keep it simple and stick to hamburgers, coffee, and Cokes.

## Don't drive in dense fog

Lollapalooza is a good thing, but when a company seems to be all lollapalooza, look out! There's much to be said - especially for value investors - for understanding the business today and for the long term. When you can't figure out what the business is or where it will be in six months, how can you develop a sense of strategic financials and intrinsic value strong enough to commit capital?

Warren Buffett is famous for his avoidance of technology investments. Although Microsoft meets almost any definition of a powerful, profitable, growing franchise, Buffett says he can't see what lies beyond five or ten years for the company. He simply considers technology outside his circle of competence and stays away, despite great respect for his good friend Bill Gates.

## Market Power

To make a long story short, market power is all about advantage. Market power is strength in franchise, brand, customer base, supply chain power, or other competence that gives the company an advantage, or an edge, or a moat, in the marketplace. Advantage drives and protects the first component of ROE: profitability.

Companies with no market power are controlled by the industry they're in. They're vulnerable to the whims of their competitors and anyone who chooses to enter their market. As a result, achieving growth is difficult; in theory, they can grow no faster than the industry as a whole. And improving profitability is even more difficult. Profits attract competitors and aggressive pricing, which eliminates the profits. Companies producing undifferentiated or commodity products can succeed if excellent management creates leading cost structures, customer base, and reputation, but advantage is hard to maintain.

## The franchise factor

A franchise is probably the most valuable asset a business can have. And we're not talking about the franchise you can buy from a restaurant or convenience store chain allowing you to sell merchandise or services under someone else's logo. The term franchise in this case refers to an established, sustainable, powerful position in a market.

## Understanding an industry

It's usually a good idea to understand an industry before committing investment capital to a company within the industry. Understand banking before buying a bank, insurance before buying an insurance company, the auto industry before buying an auto company or supplier, and so forth. Yet, for the casual or nonprofessional investor, little concrete information is available on just how an industry is organized, who the players are, and how it's expected to perform in the near and long term. What do you do?

Acquiring industry information is sort of an art and varies by industry. Sure, if you're willing to pay the price, you can access Standard \& Poor's, Moody's, and professional market research services - for example, International Data Group (IDG) for the information technology business. But without paying hundreds, or thousands, a year, how can you develop industry fluency? Here are a few tips:
$\checkmark$ Read, read, read. Read the newspaper and the newswires. If you follow an industry in the major financial papers, you'll find out what's reported regularly and where to find it. The Wall Street Journal has regular sales statistics on auto sales and a regular subsection on technology. Keep your eyes on the "Marketplace" section. Pick a couple of companies in the industry and watch the newswires (through investing portals like Yahoo! Finance). Releases and stories cover not only companies but also their markets and industries.
$\checkmark$ Check out analyst reports. You may not trust everything put forth by securities analysts, but they usually do a decent job assessing industries and their players. Much of this information originates from the big paid-for services mentioned earlier. Brokerage houses choose industries to cover and
provide fairly frequent updates. The trick is to get these reports without being an account holder (if you are, all the better). Visit broker offices, find a friend, and so forth. Most online brokers offer some free investment reports to account holders. Morningstar, Motley Fool, and a number of other investing services offer good analytical reports.
$\checkmark$ Check Value Line. Although free sources of advice for nonprofessional investors are preferred, Value Line (which may be in your local library) is the deserving exception. Value Line does an industry synopsis in each weekly report. The problem is, there's no telling what industry it will review when, but the archives fill the gap.
$\checkmark$ Read industry publications. Depending on the industry you invest in, there's a wealth of information available online and in printed journals pertaining to that industry. Tuning in may be time consuming but not that difficult.
$\checkmark$ Check government agencies and reports. Agencies and departments such as the Department of Commerce and Federal Trade Commission can provide important industry studies and barometers; for example, for the transportation or construction industries. Finding the really relevant stuff can be challenging but handy.
$\checkmark$ Find a friend in the business. While being cautious for bias and emotion, this often works out to be one of the best information sources. As a barometer of industry health and as a resource to find out about an industry's structure (channel structure, supply chain, competition), an informative friend can be a good friend indeed, but be careful, for some insiders may focus on the "trees" and lose view of the forest.

Stop, look, and listen. More about this later, but it pays to make your own observations about what's selling and what isn't selling, and emergent and dying trends. It would hardly require detailed research to discover whether SUVs were replacing large four-door sedans in the auto market in
the late 1990s, or whether so-called "crossover" SUVs are replacing traditional models now.

Value investors are resourceful types, and usually find a way to get the important business and industry information they need.

## Understanding the franchise advantage

Why should you care about franchise? Because it produce profits - sustainable and growing profits - over a long period of time. Coca-Cola is the classic case of the franchise, a situation in which the power of the brand and the reputation of the company have created a near-unassailable fortress around the production and sale of flavored sugar water. But who can argue about the strength of the Starbucks, Apple, or Google franchises, which set the enviable standards for their industries?

Franchises, according to Buffett, sell something people want for which there's no close substitute. Franchises beget market power, and market power begets pricing and supply chain power, and pricing and supply chain power beget profits. You get the idea.

## Building a "moat"

Franchises also create barriers to entry. If you can grill burgers, you can set up a hamburger stand, but can you set up a McDonald's? Would anyone come? Warren Buffett uses the "moat" metaphor to describe franchise power that keeps competitors away - and keeps the business and its fundamentals moving in the right direction.

What determines the width and depth of a "moat?" For this discussion, we identify five factors that can define market advantage:

Brand: The company or product moniker with so much behind it.
$\checkmark$ Market share and leadership: Presence in the marketplace and the 600 -pound gorilla that has the others following - or attacking the business.
$\checkmark$ Customer base: Would customers climb walls to buy the product? Are they addicted to it? Are customers more likely than not to come back to buy again and again?

Special competencies: Assets or knowledge already in place. Has any search engine provider matched Google's speed, breadth, simplicity, and efficiency? Has any company matched CarMax in applying management science and data-mining technology to its business? Has any company matched Apple's strong profitable software offering and consumer supply channel to go with its hardware product? You get the idea.
$\checkmark$ Supply-chain power: Can the business dictate terms with its suppliers or its sales channel?

Morningstar (www.morningstar.com) stock and industry reports have some of the best "moat" analysis available.

## The brand centerpiece

The marketing profession makes its living by evaluating and developing the "four Ps" - product, price, promotion, and place (physical distribution) of a company's product or product line. Marketers continuously tinker with the right mix of these inputs toward building market presence, product volume, and market share.

You can't possibly know all that goes into achieving the right marketing mix. Most marketers themselves don't know how well a given mix or strategy works. But you can pick up on one external manifestation of the marketing machine creating enduring value: the brand.

No brand is created overnight (although it got close in the dot-com craze, when, of all things, going public was considered a brand-building strategy!). Brands are built over time through a combination of good products and good presentation of those products to the marketplace.

## What goes into a brand

Textbooks are written on brand dynamics, brand psychology, the brand name and how many letters it should have, and even brand colors. Here are a few key factors to recognize:

Image: One of the most important attributes of a brand, brand image is how the public perceives the brand in the marketplace. Product quality is part of a brand image, but it goes beyond physical quality into association with ideas and images from the real world. People tend to associate Wrangler with rugged Western jeans; Harley-Davidson with rugged individualism; or at the other end of the scale, Tiffany's for classic, refined elegance. Image branding and marketing can be very powerful and sustainable, but the landscape is littered with the carcasses of quality and image failures. Some brands fail utterly - ValuJet and Firestone come to mind. Others see their luster and "cache" slowly
wither away - like Snapple or, more recently, Dell. In some sense, a brand image is like a relationship or marriage - it requires consistency and continuous effort to keep going.
$\checkmark$ Familiarity: They aren't glamorous, and the quality difference isn't that obvious. But we buy Tide and Cheer anyway. Could it be the advertising? The packaging? The fact it's available everywhere? Familiarity creates mindshare and drives repeat, or habitual purchase, and creates barriers for entry. Most value investors place a high value on habitual repeat purchase.
$\checkmark$ Reputation: This one may be a composite of the first two but deserves its own mention. Reputation builds slowly over time and provides a powerful umbrella giving storm shelter when other things go wrong. But it must be nurtured and handled with care. A defining case study is Procter \& Gamble's handling of its Rely tampons and their link to toxic shock syndrome; this case provided the model for companies to come forth and admit mistakes. Denial prolongs the battle, and while perhaps providing short-term financial wins, has long-term negative consequences. When considering companies to invest in, look for businesses that manage their mistakes well.

## The last word on brand

Brand is a complex and fascinating part of a company's identity, and it can tell a lot about a company's value. It's up to you to decide how valuable the brand is in the marketplace both today and in the future. Does the brand support stronger pricing? Does it foster repeat purchase? Is the brand extendable into new markets or into other products (as in Nike golf balls or Titleist clothing)? Does it define the market, as in Coke or Kleenex, or Simpson StrongTie in the construction connectors business? It all becomes part of the value appraisal, perhaps without involving a single number.

Even with the use of expensive market research, assessing and assigning a value to a brand in the marketplace is very difficult. Individual investors don't have expensive market research at their disposal, and so must rely on keen observations and judgment to assess the value of a brand, sometimes known as brand equity. The checklist approach helps, and such a checklist is offered later in this chapter.

## Market share and leadership

Have you heard the term " 600 -pound gorilla" used to describe certain industry players? Like Cisco in the networking industry or Wal-Mart in retail? Market leadership is closely tied to brand as a powerful marketing and pricing tool. Market leadership means that a company defines the market, sets the pace in price and product, and (usually) is tied to a strong brand. And market leadership often leads to cost advantages through buying power and economies of scale.

## Perhaps you can value a brand . . .

Although quantifying brand psychology and its value to a business would seem nearly impossible, there is one annual study and report published by BusinessWeek that makes an excellent attempt. The annual BusinessWeek "Top 100 Brands" study takes a worldwide look at major brands, assigns a market value for each, and, perhaps most helpfully, shows how each brand
has changed from the previous year. In case you're interested, the top 2007 brands, in order are Coca-Cola, Microsoft, IBM, GE, Intel, Nokia, Toyota, Disney, McDonald's, and MercedesBenz. Don't forget that this is a worldwide study, and the focus is on big companies. To access it, subscribe to BusinessWeek or enter "business week brand value" in a search engine.

But market leadership is a two-edged sword. Although it can translate to pricing and purchasing power, being number one also makes your business a prime target of numbers two, three, and four. So a market leader must devote a lot of energy to staying that way and must avoid the trap of resting on laurels and maintaining position through arrogance. The pre-Gerstner IBM and the General Motors of the 1960s serve as reminders that market leadership isn't always a good thing - nor is it permanent. In fact, this is the primary argument Microsoft has used for years in defending various anti-trust challenges.

Often the size of the market a company is trying to dominate doesn't matter. Great profits have been made in small "niche" markets; it can be just as profitable to own a niche as a larger market. Sure, it's nice to own the PC operating system market as Microsoft does, but a company like Simpson, dominating the construction connector market, can be just as successful, if on a smaller scale. Investors look for dominance, not just size.

So two items are important in the assessment: (1) to what degree does the business possess market share and leadership and (2) does it do the right things and have the right attitude to maintain its market position and grow it? If a company is continually struggling to maintain a five or ten percent share in the market - or worse yet, is losing share - that's a bad sign.

## Customer base

A strong and loyal customer base is a hugely important intangible asset. Why? A company with a loyal customer base can depend on repeat sales and spends less money acquiring new customers. Profitability increases through lower marketing costs and repeat sales driven other than by price. Customer base "nirvana" occurs when customers repeat-buy the product regardless of price and evangelize the product and company to others. Starbucks has
enjoyed considerable success here as well as in other market-related areas. Starbucks customers are not only loyal, they're addicted!

A business that treats a customer base as an asset is more successful than one that doesn't. The company that "gets it" carefully manages and cultivates its customer base. Such a company learns about its customers, listens to them, talks to them, and nurtures loyalty and referrals. Successful companies build a mutually beneficial relationship with their customers.

Companies that don't "get it" treat their customers as a cost center and must continually pay to acquire new customers and reacquire old ones. Good examples of companies that "get it" are Tiffany's, Nordstrom's, and HarleyDavidson. Harley has done a particularly good job of capitalizing on its customer base. Apple was once a good example, but recent service and support history on iPod products brings its customer management into question.

How do you tell? You can't always unless you're a direct customer of the company. Still, word of mouth and the tone and manner of public communications can tell a lot. And don't be fooled just because a company has a loyalty or points program. Such programs don't always mean that a company is listening, nor do they always differentiate (anyone out there a member of an airline program?), but they're a step in the right direction. Managing loyalty and the customer asset takes on different forms depending on the industry. A company selling $\$ 2$ products through a retail grocer takes a different approach than one selling plane tickets or automobiles.

Score a "plus" for a strong, loyal customer base and business strategies that employ the customer base as an asset and capitalize on it. Don't forget that this applies to business-to-business companies, not just to consumer businesses. If customer relationship strategies are hard to detect, talk to someone who is a customer or works in the industry.

## Special competencies

Does the business you're evaluating have a distinctive competence? Does it just happen to control the operating system of the PC, so that its applications will work better than everyone else's? Does it have a Coke formula and 125 years of ingrained brand history recognized by 80 percent of the world's population? Does it have the best search engine or most innovative designs or best support available? Does it have special knowledge, experience, or intellectual capital that others don't have? Has it learned how to apply management science techniques to the auto sales business? Does it have deep enough pockets to write insurance policies where no others can? Or does it have some other kind of infrastructure, business model, or technology that's difficult to duplicate? Score a "plus" if this is the case.

## The supply chain

Indeed, if investors examine market power influence on pricing and sales, they still tend to overlook factors influencing a company's cost structure today and in the future. Wanna buy an airline stock? Keep in mind dependence on oil for fuel; well-organized labor; scarce aircraft in a two-supplier market; and tight, government-controlled availability of airport facilities. Are airlines in control of their cost picture? Clearly not. Although other factors may not be so grim, airlines have seldom been considered value investments.

On the other hand, companies can exert considerable influence and control over their suppliers. Sears certainly influences, if not controls, Whirlpool. Auto companies have traditionally exerted a great deal of influence over their suppliers. Being the 600 -pound gorilla in any industry usually means power on the supply side, for every supplier wants such a lucrative customer deal.

The "supply chain" concept usually refers to entities up the chain toward suppliers of business resources. A broader and more useful definition looks down the chain into sales and distribution channels. If a company has sustainable control or influence over its distribution partners - a sizable portion of their business and a good relationship - that's a good thing. A business that continually has to fight or pay for shelf space is at a disadvantage. So when evaluating the business, look at distribution channels and their influence on stability, sustainable and growable sales, and stable costs. A company that can economically sell directly to its customers may have an advantage.

Think about the resources needed to sustain and grow the business, and try to picture whether the company is likely to be in a better or worse position five or ten years down the road. Give the company a "plus" for supplier power, and give another "plus" if a company has channel power.

## All About Management

Market power can deliver huge intangible benefits to a business and business results. Less visible in the marketplace but just as important is another intangible pillar: company management. Like market power, it's about something drawn from a qualitative, sensory assessment; not from formulas, tools, and specific resources.

There are four attributes of management excellence: competence, candor, independence, and customer focus. For those who've been around the block in the corporate world, the term "management excellence" may seem to be an insufferable oxymoron. Yet, Warren Buffett views management as an Xfactor that can make all the difference, and he feels he can judge a lot about a company from a short meeting with its senior management.

Evaluating management excellence can be tricky. You don't sit or work with these managers on a daily basis; in fact, much of what they do is deliberately kept secret. Yet, a sensitive antenna can pick up a lot over a period of time. But if you learn about a company in the morning and want to invest that afternoon, appraising management can be pretty difficult.

Solid information about a company's management is usually hard to find except what you see in the press. Yahoo! Finance provides links to the bios and executive compensation of management, but these do little to help you assess performance. Read the paper and watch corporate communications and press releases to catch the buzz about a company's management. The following sections discuss some factors that suggest management excellence.

## Competence

Does management have the right vision, make the right decisions, and offer good reasons for those decisions? Sure, anyone can talk up a good future for a business, but does it stand on its own two feet? Does management make sound investments in existing businesses? In new businesses? Or does it grope for growth, itching for acquisitions because it believes that it needs to be doing something? Does it understand - and control - expenses? Does it make changes when changes should be made, being neither too eager nor too reluctant to make them? Does it make reasonable projections about growth and earnings?

Bigger picture: Does management seem to have a sound, smart, and "doable" strategy? Or does it simply talk about cost cuts and layoffs? And, is the message consistent and clear, or just choreographed for different audiences or stages in the business cycle? There's more, but suffice it to say that good management understands the business, has a realistic view of it, has a solid rationale behind strategies and decisions, and employs resources wisely within it.

## Candor

Ever notice that more is heard from many managers when things are going well than when they aren't? Value investors like managers who communicate quickly and honestly about business issues and problems - and without undue spin. These managers disclose as much data as they can about their businesses, including information about sector performance, unit productivity, and key strategies and investments. According to Buffett, managers who confess mistakes publicly are "more likely to correct them." Honesty is the best policy. Along with candor, a little of the right attitude goes a long way. Arrogant managers who hide problems, think they can solve them all, or, worse yet, think they are invincible and have no problems are bound for trouble. "Kicking butt" is not always the right answer.

## Independence

Good management teams think and act independently. They think and act for the long-term health of the business and resist the temptation to pour energy and resources into achieving this quarter's results. Buffett calls this approach "avoiding the institutional imperative," which means turning aside the shortterm pressures of Wall Street, its analysts, and institutional investors to do what's right for the business long term. They have a vision, a mission, and a plan and follow them, avoiding distractions. And leadership plays a big part. Unlikely to follow the lead of others, they play to win and to beat the competition, not just to keep up with it.

## Customer focus

A management team focused on customers is more likely to succeed than one focused on its internal issues and on competitors. Does the company know its customers? Who they are and what are their needs? Do communications and advertisements stress how company products benefit customers? Does management spend time with customers? Do communications talk about customers and customer "wins," or are they focused on the glories and challenges of the business itself?


In most cases, you don't work for the company in which you're investing. So how do you get a chance to listen to what management says, and how they say it? How do you pick up the nuances of competence, candor, independence, and customer focus? Naturally, it's difficult, and it's obvious you can't just pick up the phone and call unless you manage a $\$ 100$ million hedge fund. But there is a way for the average investor: conference calls ("CCs"). It's easy and free to listen in on most publicly traded company conference calls on the Internet, through company Web sites or Yahoo! Finance or special conference call portals. Most CCs can be listened to after the fact. The great part about conference calls is, although the initial management message is scripted, the answers to analyst questions aren't. Analysts ask great questions, and you can hear surprisingly honest answers, as well as the tone of the answers. Sure, it would be nice to see the body language, too, but the audio portion is, in a word, helpful.

## Ownership

By looking at a company's ownership, particularly those who own the largest pieces of the business, you can assess the attractiveness of the business to others - and to its own management. Pure and experienced value investors may not really care who's interested in the company, preferring instead to
rely on their own appraisal rather than follow the lead of others. But as you develop your personal expertise and style, a look at who else owns the company may at least provide a valuable "assist."

## Management as owners

Management and insider ownership reflects management commitment. One place to find out what insiders own and what they're doing with their holdings is Yahoo! Finance and its "Insider Roster" and "Insider Transactions" pages. You can also refer to company publications, including annual reports, but these may be a little less current. Insider buys and sells can tell something, but sometimes this indicator can be misleading, as executives routinely sell options and shares as part of their compensation package. Look for management or insider "buys" not matched by an immediate "sell." And of course, exceptionally large sales, at peak or trough prices, are not a good sign.

## Institutions as owners

Yahoo! Finance also shows the top ten institutional shareholders under the "Major Holders" tab. Usually these are large banks, pension funds, or trusts. The larger the holdings and the more "blue chip" the names, the better. You can also see whether institutions have been buying, but make sure, too, that this information is current.

## Mutual funds as owners

Yahoo! Finance also shows the top ten largest mutual fund holders under the "Major Holders" tab just mentioned. Look for who, how much, and what kind of fund. If the top ten funds all are value funds, that's a good sign.

## Walking the Streets

This chapter can't be properly closed without mentioning the concept of walking Main Street and keeping your eyes and ears peeled to what's happening in your corner of the business world. Peter Lynch advocated this strategy long ago: Buy what you know; buy what you see is going well. If the line at Starbucks is persistently out the door at all times of the day, if all your home-based-business friends are considering Starbucks as their office, if parents with small children use it as a hangout during the day, and if you deeply believe Starbucks has replaced the corner tavern as the place to fritter away
idle time and money, those factors together should work positively for the company - think "asset utilization." But you may also come away with an impression that lines out the door may be a customer negative mandating expensive operating improvements for the company and supporting the competition. It becomes your imperative and calling as a potential owner of the business to figure out.

The trick is then to figure out how that impression extends to the rest of the business, in other places, and whether all that activity turns to profits. Make a point of visiting Starbucks when you travel, too, so you can see how well the idea works in other places. Drop into a CarMax to see how busy it is; observe the level of customer care, and see how its inventory mix represents the times and tastes of the area. Talk to contractors about their experience using Simpson products, and check the big home improvement retailers occasionally to see how they're being stocked and merchandised. Talk to your best friend the PC engineer about what hardware and accessory products are working, and whether AMD is finally going to surpass Intel this time around. And so on.

## Checking Good to Great

It's fairly easy to develop your own checklist for intangibles. Figure 14-1 shows a sample checklist filled out for Simpson Manufacturing. You can use a checklist like this, together with the strategic financials checklist in Chapter 13, to get a good grasp of business performance, business potential, and overall company value. The example shows a relatively strong marketplace story, perhaps offsetting a somewhat weaker short-term 2006 financial performance, an attractive position for longer-term investors.

## Sultans of SWOT

As an alternative approach to defining intangibles, some business and marketing analysts employ a tool from the consulting world: the SWOT analysis. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. A business is evaluated for each of the four attributes. Figure 14-2 shows how a SWOT diagram may be filled out for Simpson:

This analysis is by nature very subjective. There is no scoring system, and attributes aren't tied directly to ROE components. Still, it provides a fast, easy, and practical framework for appraising a company's prospects
Figure 14-1:
Strategic intangibles analysis for Simpson.

| STRATEGIC INTANGIBLE ANALYSIS |  |  |  | COMPANY: Simpson Manufacturing |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | COMMENTS |
| MARKET POWER |  |  |  |  |
| BRAND | + | +/0 | + |  |
| Image <br> Familiarity <br> Reputation | $\begin{aligned} & + \\ & + \\ & + \end{aligned}$ | $\begin{gathered} \hline+/ 0 \\ + \\ +/ 0 \\ \hline \end{gathered}$ | $\begin{aligned} & + \\ & + \\ & + \end{aligned}$ | recognized among contractors, largest product variety, always available familiar products, uses, terminology, contractors know all products by name and use excellent quality, again, the right assortment, always available |
| MARKET SHARE/LEADERSHIP | ++ | 0 | + | no other real competition, at least in professional market; Simpson dominates niche |
| CUSTOMER BASE | + | + | + | strong loyalty, base expanding to consumer do-it-yourself customers, international |
| SPECIAL COMPETENCIES | 0 | 0 | 0 | earthquake retofit materials provide some stability during construction downturns |
| SUPPLY CHAIN POWER | 0 | 0 | 0 | unknown, not likely |
| CHANNEL POWER | + | + | + | dominate distributor channel, strong and expanding presence in retail, international |
| MANAGEMENT EFFECTIVENESS |  |  |  |  |
| Competency Candor Independence Customer focus | $\begin{aligned} & \hline \hline+ \\ & + \\ & 0 \\ & + \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 0 \\ 0 \\ 0 \\ +/ 0 \\ \hline \end{gathered}$ | $\begin{gathered} + \\ + \\ 0 \\ +/ 0 \\ \hline \end{gathered}$ | no worries <br> again, no worries <br> unknown <br> spend time researching and really understanding how customers use product |
| FINAL ASSESSMENT | + | + | + | good market story offsets short term business cycle and financial weakness in 2006 |


|  | $\mathbf{S}_{\text {trengths }}$ <br> - Strong brand recognition <br> - Niche dominance <br> - Loyal customer base <br> - Service and technical value <br> - Strong cash position | W eaknesses <br> - Inventory productivity <br> - Short term residential construction |
| :---: | :---: | :---: |
|  | $\mathbf{0}_{\text {pportunities }}$ | Threats |
| Figure 14-2: SWOT analysis for Simpson Manufacturing. | - International expansion <br> - Earthquake and home safety products <br> - Construction automation tools and products | - Foreign competition <br> - Raw materials costs <br> - Channel inventory reductions <br> - Declining use of lumber in construction |

## Chapter 15

## Warren's Way

## In This Chapter

$>$ Following the Buffett approach to business value and investing
$>$ Understanding Buffett's business, management, financial, and market tenets

$\omega$ant to do the impossible? Try writing a book on value investing without mentioning Warren Buffett. It would be easier to write a book about American history without mentioning Thomas Jefferson or a book about the physics of relativity without mentioning Albert Einstein. Although this is not a book about Buffett per se, it wouldn't be appropriate to write a book on value investing without capitalizing on his vast insight, experience, clairvoyance, and humor to help explain it.

This book is designed to add breadth and depth to your understanding value investing and to help you begin to develop your own value investing style. Mr. Buffett's example is presented as an art teacher would use Rembrandt, Picasso, or Monet to help you develop your own painting style. You don't necessarily have to copy or duplicate the Buffett style; but you should learn from it.

Chapters 11 through 14 describe a system for appraising intrinsic value, financials, and intangibles of a business. Formulas, ratios, and checklists are offered as tools. Does Mr. Buffett do all this analysis? Pretty much - the principles presented in this book are aligned with his. But Buffett's experience, judgment, and preferences reduce the complex to a relatively simple 12-point formula, now presented as sort of a For Dummies guide within a For Dummies guide. The principles presented in Chapters 11 through 14 shouldn't be ignored or forgotten - because they contribute to understanding the principles behind Warren's Way.

Robert Hagstrom, Senior VP and Portfolio Manager at Legg Mason (a valueoriented mutual fund group), author of The Warren Buffett Way, The Warren Buffett Portfolio: Mastering the Power of the Focus Investment Strategy, and The Essential Buffett: Timeless Principles for the New Economy (all published by John Wiley and Sons), has identified and explained the Twelve Tenets of the Warren Buffett Way. In this chapter, we follow Mr. Hagstrom's Twelve Tenets framework.

## The Buffett Wisdom

Describing Mr. Buffett's wisdom, mindset, and approach to life in full would be an ambitious project indeed - and beyond scope. (Many others have attempted it, and the 1,100-page Of Permanent Value: The Warren Buffett Story by Andy Kilpatrick is one of the best.) A few basic paradigms form a background canvas onto which the more specific tenets of Warren's Way are painted.

If you were to sum up Warren's Way in one sentence, it could read (quoting Hagstrom): ". . . [H]e looks for companies he understands - businesses that have favorable long-term prospects, are operated by honest and competent people, and importantly, are available at attractive prices."

Here are some additional "basics" of Warren's Way:
$\checkmark$ Buying shares is equivalent to buying the business. You must have the same rigor, the same approach, and the same discipline.
$\checkmark$ A value investor is a business analyst, not a market or security analyst. The focus is on the business, not the stock or stock price.
$\checkmark$ A business valuation is complete and holistic. It includes financials, intangibles, and price.
$\checkmark$ The market values stocks correctly much of the time, but not all the time. Over- and undervaluation exist somewhere in the markets at all times. The trick is to find it.
$\checkmark$ Long term is the only term. "Our favorite holding period is forever," says Buffett. Further, Buffett rails against short-term trading as a waste of money and, worse, a distraction from what's really important in a business.

Always think future value and opportunity cost. The power of compounding is one of the sacred tenets of investing. And, any investment must be considered against all of its alternatives.

## Tenets, Anyone?

From Hagstrom's analysis, the Buffett approach has 12 tenets grouped into 4 categories:

Business Tenets are a high-level view of the business itself, including its markets and marketing strategy.
$\checkmark$ Management Tenets are qualities desired in senior management.
$\checkmark$ Financial tenets concern financials and financial strategy.
$\checkmark$ Market tenets relate the value of the business to the price of the stock (in contrast to marketplace attributes described in Chapter 14).

Within each category there are 2 to 4 tenets, giving the total of 12 . Here's the list, again from Hagstrom:

## Business Tenets:

- Is the business simple and understandable?
- Does the business have a consistent operating history?
- Does the business have favorable long-term prospects?


## Management Tenets:

- Is management rational?
- Is management candid with its shareholders?
- Does management resist the institutional imperative?


## $\checkmark$ Financial Tenets:

- Focus on return on equity (ROE), not earnings per share.
- Calculate and understand "owner earnings."
- Look for companies with high profit margins.
- For every dollar retained in the business, make sure the company has created at least one dollar of market value.


## Market Tenets:

- What is the value of the business?
- Can the business be purchased at a significant discount to its value?

Could this become your golden checklist? Maybe so; let's take a closer look.

## Business tenets

Business tenets are kind of a 30,000 -foot overview of the business itself, including its markets, market position, and strategy.

## A simple and understandable business

According to Buffett, a business investor can't consistently achieve success without understanding the underlying business. Anything else is pure luck, an in-and-out trip to the Wall Street casino. If you can't understand the business or the industry, you're looking for trouble.

Enter the circle of competence concept. Buffett steadfastly sticks to businesses he understands - and understands well enough to predict. His old adage is that "risk comes from not knowing what you're doing." The more you understand the business, its driving forces, and the numbers, the less likely you are as an investor to make mistakes.

And that is another key piece of the Buffett Way: Avoid big mistakes. Big mistakes hurt portfolio performance, and worse, they derail the compounding train (see Chapter 4). Buffett avoids technology shares for this reason. Even for tech companies with apparent enduring value, such as Microsoft, he simply can't predict where they'll be five or ten years down the road. Changing technology, changing markets, competitors, regulation - you name it - all get in the way of judging and predicting sustained performance.

Interestingly, Buffett recently declared that, if utility regulation went away, he would become a bigger utility investor. Certainly, utility companies fit every other characteristic of a value business: market power, locked in, steady growth, strong cash flow, and an understandable business. Although Hathaway famously bought a large stake in Iowa-based Mid American Energy, the portfolio continues to shun this sector. Why? Because of regulation, Buffett feels companies can't control their future, and investors can't predict the future. Buffett may also have been concerned about Chinese government influence over PetroChina in his recent decision to reduce holdings.

Buffett would advise not to take on and solve complex business valuation problems, but to avoid them. He would recommend doing ordinary things exceptionally well in business valuation, and not looking for challenges. In other words, keep it simple and avoid complexity.

## Consistent operating history

Related to avoiding complexity, Buffett would advise staying away from companies going through fundamental strategic or operational shifts, and to avoid turnaround situations (although some may appear to be great values). In his words: "Turnarounds seldom turn," "severe change and exceptional returns usually don't mix," and "energy can be more profitably expended by purchasing good businesses at reasonable prices, rather than difficult businesses at 'cheaper' prices." So stick to companies that produce the same products and the same or improving results - through the years. Would anyone like a Coke?

## Favorable long-term prospects

The first part of this tenet is to look for companies with valuable, sustainable franchises - and to avoid the bulk of the rest of the business world locked up in commodity businesses (in his view, everything becomes a commodity business sooner or later). For more discussion of franchise and what it means, see Chapter 14.

The key to franchises is the ability to control - and raise - prices, without necessarily losing market share. Lasting market power is key. Businesses without franchise compete only on price and/or expensive advertising. Adding in the competition, there is little prospect for profits, profit growth, and high ROE. In fact, the only downside for businesses with a franchise is that they form glaring targets for others who want to challenge it. Companies like Coke and Procter \& Gamble spend billions of dollars and lots of energy preserving their franchises. It could be easily argued that Simpson Manufacturing has a strong franchise in the construction materials business.

## Management tenets

Bottom line: Buffett looks for managers who think and act like owners of the company. Do they behave as though it were their own business? People who spend their own money make better decisions than those who spend the money of others.

## Management should be rational

It seems obvious that management should be rational, doesn't it? Yet, it isn't always the case.

The rational manager has a sound, clear, long-term vision for the business, and executes consistently toward it. Furthermore, in Buffett's eyes, management must make good decisions about allocating capital. An effective management can overcome external pressure and internal politics to invest in (allocate capital to) what really makes sense for the business and for its return on equity (ROE).

Too often, managers invest in old ideas despite below-average returns. They believe hopeless situations will turn around. They believe toughness and sheer determination can pull it off. And they have a hard time admitting they're wrong and that the world has changed. Sound familiar? Corporate history is littered with the casualties.

Further, managers feeling an itch with the status quo - or responding to external pressure - will become overactive. Start this business; exit that business; change brands; fill the shelves with new products, even though they cannibalize existing ones; look for an acquisition. Somehow, they feel the need to do something, anything. It often turns out to be anything but good for the business. Was "New Coke" a result of management itch, poor judgment, or a carefully concocted marketing ploy? Most believe it to be a mistake, but was it really the act of a rational management looking to revitalize and confirm the old brand? Looks that way from here

And in Buffett's view, if management can't find projects or investments with adequate returns, it should return the returns to the shareholders in the form of dividends. As dividends set continuing expectations and receive unfavorable tax treatment, the alternative is a share repurchase, a Buffett favorite. According to Buffett, when management buys shares in the market, it regards the owners' best interests over a need to unnecessarily expand corporate structure.

## Tell the truth: Candor

As a concept, this one's also fairly obvious, but wow, consider the failures! How many have seen management reports that sweep all the bad stuff under the rug and promise all will be great - just wait 'til next year! How many have seen management crow when things are going well. It's always quoted in the paper, always headlining the trade show, doing its own TV commercials, and so on. Then when things turn south, management is nowhere to be found. And it gets worse when it starts spending more time monkeying with financial statements and reporting than managing the business.

Buffett consistently seeks managers who can admit mistakes and then study and learn from those mistakes. A manager who spends 15 minutes talking about the successes and 2 hours discussing the failures is the right kind of manager. And a management team that shares detailed data about the business - segment performance, unit volumes, and so on - gets higher marks. Honesty is the best policy.

A lot of what Buffett professes to investors is, as you've probably noticed, well worth incorporating into your own personal business and career life. If you behave like a Buffett manager or investor, chances are you'll succeed in the workplace, too.

## Resisting the institutional imperative

What is the institutional imperative? Good question. It is a combination of real-world factors that makes managers behave in less-than-rational ways. External influences are led by Wall Street analysts, fund managers, and large shareholders. Add internal organizational bureaucracy, legacy, the Peter Principle, and the tendency for subordinates to agreeably support management biases (all common organizational dynamics), and you get a powerful witches' brew of factors turning rational decision-making astray.

The result: Management teams engage in folly beyond our wildest dreams. Okay, outright folly isn't always the result, but tentative behavior and resistance to change often come up. Short-term focus creeps in: Gotta meet your numbers and do as well as competitors this quarter. Never mind the long term.

Managers don't want to lose credibility either outside or inside, so they often follow a failure path or put energy into the wrong things instead of managing for the future. The failure path can be doing nothing, or it can be reaching for unsound businesses or acquisitions in desperate attempts to meet institutional imperative despite unsound strategy. Was Ford's acquisition of Jaguar (and later Volvo) or the ill-fated Quaker Oats Snapple acquisition driven by institutional imperative or sound business strategy? One wonders.

Independence is the right path. Independent managers give both sides of the story and resist the temptation to bow to external pressure. They do what's right for the business in the long term. Analyst meetings and conference calls are short and devoid of fluff, and are more about long-term strategy and vision than prognosticating this quarter's results. Independently thinking managers don't let the analysts set their targets, and don't cast everything else aside to meet them.

## The management assessment

Summary: Businesses managed with reason, honesty, and independence are destined to come out ahead.

But how do you, the investor, the outsider, learn enough about management? There's no hope of ever meeting them in person or knowing the detail of what they are up to. Much of that's hidden behind the corporate veil. Thus, some investors and analysts take the path of measuring performance by the numbers, end of story. But this approach does little as a leading indicator of results. Buffett's recommendation: Read, read, read. Read annual reports, in sequence, to get a feel of how management perspectives and strategies change. Compare the statements of managers for different companies in the industry. Look closely at interviews, speeches, and professional presentations. Get a feel from the company's Web sites. Weigh it all, but don't overweigh it. Excellent management doesn't fix mediocre businesses. As Buffett put it, "A horse that can count to ten is a remarkable horse - not a remarkable mathematician." Don't forget context.

## Financial tenets

For those who read Chapters 11 through 14, Buffett's financial tenets will be familiar. The Buffett approach is a back-to-basics approach focused on earnings - real earnings - earnings growth, and the fundamental earnings productivity of the business. Not surprisingly, the focus is also on the longer haul, not year-to-year performance and comparisons.

## ROE is the centerpiece

Return on equity (ROE) - the dollars earned per dollars invested by the owners - is the single most important financial yardstick for any business.

However, many companies focus instead on increased dollar earnings or earnings per share. But for Buffett and value investors, these events are less meaningful, particularly if ROE is actually declining. Because retained earnings (not paid out to shareholders) become part of equity, maintaining or increasing ROE is particularly challenging, requiring larger increases in earnings. The company that maintains or grows ROE is accomplishing something; the company that shows declining ROE may still be growing earnings while actually producing poorer returns for its owners.

Buffett rightly insists on purifying the ROE measure, removing the effects of investment gains and extraordinary items. Investment gains make ROE look better without any improvement in business fundamentals, while the effects of extraordinary items on both numerator and denominator should be understood.

Buffett is also cautious about using leverage to improve ROE (for more, see Chapter 13). A good ROE without debt is better than one with debt. Although Buffett would err on the side of reducing or eliminating debt, he's not totally against borrowing where it makes business sense; that is, where margin of safety is maintained and the borrowed money is put to productive use. If good ROE can only be achieved by carrying large amounts of debt, watch out.

## Owner earnings

Buffett was hardly the first to recognize that earnings and earnings measures can be less than pure. For reasons explored in Chapters 6, 7, and 8, and especially Chapter 9 , earnings may not tell the whole story.

Many analysts use cash flow as a more realistic indicator of business performance. But cash flow can have its limitations as well, particularly when large irregular capital expenditures fall outside the analyst's time horizon. No matter how you look at it, business performance must include funds required to build and sustain infrastructure, whether accounted for on a cash basis (lump sum disbursements) or depreciation (periodic recovery). So Buffett uses cash flow, but he goes further to include capital expenditures and changes in working capital. This is the only logical course, especially when taking a long-term perspective. To Buffett, short-term cash flows devoid of capital requirements "are frequently used by marketers of business and securities in attempts to justify the unjustifiable and thereby sell what should be unsaleable." We couldn't have said it any better.

So the tenet boils down to this: Use owner earnings (net income plus depreciation, depletion, and amortization) - less capital expenditures and working capital infusions - to fairly evaluate business performance.

## Behind the curtain: Profit margins

Behind every successful business is an operating machine producing healthy profit margins. Gross margin and net operating margin (after expenses) are important. Gross margins indicate market power and potential. Both gross and net margins reflect control of costs and expenses. Effective margins and effective cost controls are not discrete events but rather a self-evident way of life for successful businesses and their management teams. Managers who rely on one-time write-offs to control costs are not managing expenses and margins effectively on a day-to-day basis. Look for consistently healthy, growing profit margins and low overhead costs.

## A dollar for a dollar

This tenet drifts a bit from pure company internals to bring in market valuation. Buffett looks for companies for whom every dollar in retained earnings should result in a dollar of increased book value, and a dollar of increased book value should achieve a dollar increment in stock price. Although subject to the whims of Mr. Market, in the long term, stock prices should appreciate as business value appreciates. If this isn't happening, something is wrong either with the numbers or the economic prospects of the business itself.

## Market tenets

Up to this point, this chapter concentrates on the value of the business itself. Share price - and whether to buy into the business - haven't entered the discussion. Market tenets concern rational decisions about price and value, and whether it's time to buy a company.

## Determine the value of a business

The intrinsic value principle described in Chapter 12 (a business is worth what the owners can take out of it) is the centerpiece of Buffett's business valuation approach.

Buffett will look at total future owner earnings and insist on an understandable, predictable pattern (a circle of competence). These earnings, or coupons, are discounted back to the present to arrive at a fair figure to compare to price and alternative investments. And what about the discount rate? Buffett usually uses the higher of a current risk-free bond rate or 10 percent, and instead of adding risk premium to the discount rate, he requires a lower price to provide a margin of safety. Buffett's approach, although principally sound, avoids getting stuck on the finer (but never precise) ramifications of risk and discount rates. "Risk comes in not knowing what you're doing" and "I put a heavy weight on certainty" are timeless Buffettisms that apply.

## Swing at good pitches only

The fitting last tenet is the notion of buying only at attractive prices. The preceding eleven tenets may indicate business success, but they won't insure investment success. Investment success means finding a business bound for success, and buying it at a price bound for success.

So the essential strategy is to "find companies with above-average returns, and buy their stock when it is priced below its intrinsic value." The margin of safety thus provided creates a lot of upside leverage for the owner; at the same time, it mitigates the risk of declining value and magnifies the expected return (business growth plus return to core intrinsic value).

And don't forget the quality variable. It may not be realistic to expect a business with really wonderful prospects to show up for sale at a big discount to value. Although the original Buffett approach (and the Graham approach before that) was to find good companies at a deep discount, the more modern value approach (brought to Buffett in part by Charlie Munger) is to pay up for quality where it makes sense, even to multiples of book value.

A corollary principle (and one of the hardest lessons for the investor) is patience. Metaphorically, it is the notion of "swinging only at strikes" and better yet, swinging at strikes you like. The true value investor can pass up a lot of investment opportunities, even many that fall within the zone. The idea is to wait for one that looks really good; then swing hard. Too many investors pull the trigger too quickly and foul off pitches outside the zone or in the wrong place in the zone. Wait for the investment down the middle, with truly excellent business prospects at a truly great price relative to value.

Bottom line: Be patient.

## Chapter 16

## Shopping for Value: Deciding When the Price Is Right

## In This Chapter

Understanding the role of price in stock selection
$>$ Looking at valuation ratios as pricing models
Taking a closer look at P/E

- Making sense of the role of growth in pricing

Recognizing under- and overvaluation

$y$ou tried it on and it fits. You like it and it looks good on you. Now, on to the next issue: the price tag. Look at the number. Does the price make sense? Compared to benefits and value received? Seems kind of high. You ponder. Maybe it doesn't fit as well as you thought, and it isn't quite your color anyway.

On the other hand, many of you probably checked the price first. Found a bargain, maybe. Perhaps the fit and color are not quite right, but you aren't concerned. You're willing to accept something less than perfect if the price is right.

Regardless of the exact approach, sooner or later, price enters the value equation. You look at value; then you look at price. Or, you look at price; then you determine value. You're looking for an attractive "price to value" ratio. With a garment, "value" is largely abstract and a matter of taste. With a stock, it's a combination of business fundamentals and intangibles. The relationship between price and value is the inevitable final check made when deciding to buy or sell.

From the beginning this book has been focused on business and company value. Now it's time to take a look at the price tag, the market price as set by the investing public. This chapter looks at price and helps you establish your system for deciding if the price is right.

# The Inside-Out Approach to Buying 

If you're reading this book in chapter order, you're probably wondering why the first 15 chapters hardly mentioned stock prices. You may have thought that'd come up in Chapter 2 or so. Isn't value investing about finding bargains? And how do you know you have a bargain without looking at the price tag? What gives?

## Impulse buying not allowed

By design, this book takes an inside-out approach. That is, we look at the merchandise in detail before considering a buying decision. It's the way most people look (or should look) at buying a big-ticket item like a car, house, or college education. And is a securities investment a big decision? You bet. For the avid Buffettonian, a stock purchase is treated like a life decision.

So that's why this tour has taken us through business valuation, in some detail, before discussing price. If the value investor has a good sense for the value of a company (intrinsic value, ROE and drivers, and intangibles), a conscious and deliberate buying decision can be made once price is known.

## But . . . still not a formula

Even with all the analysis, regrettably, buying decisions are still not black-and-white formula answers. Intrinsic value of $\$ 22$, ROE of 25 percent, good management, sustainable margins, growth, familiar brand, price of $\$ 18$. Should you buy? It's still a gray area.

Obviously, this example has a lot going your way, and the chances of going wrong aren't huge. But before pulling the trigger, you must first think about risk and uncertainty (the downside) and then think about the alternatives. A $\$ 22$ stock for $\$ 18$ may be better than a $\$ 50$ stock for $\$ 30$, depending on the risk and the clarity of your assessment. And in a risky environment, neither may be as good as a 6 percent bond. Just like a swimsuit on a store rack is evaluated not only for price but also compared to the other available swimsuits, so it must be for a business purchase decision.

## Moving outside

"Inside" business appraisal was largely based on profit, growth, and growth drivers in many layers of detail - solid and improving business fundamentals. As we head out into the real world of markets and prices, the focus
shifts to putting the right price tag on the fundamentals. More to the point, we're deciding if the current price tag makes sense.

## What did the market miss?

The value investor usually seeks one of three scenarios:
$\checkmark$ Scenario 1: The market underestimates strong and improving fundamentals, usually supported by strong intangibles. Large companies with strong exports and solid cash positions, like IBM and Hewlett-Packard, are recent examples.
$\checkmark$ Scenario 2: Fundamentals aren't there yet, but strong intangibles product strength, market position, competitive advantage - speak well for the business and for improving future fundamentals. The business value is driven by strong leading indicators - it's a growth scenario. Companies like Starbucks, Apple Computer, or CarMax fit the bill.
$\checkmark$ Scenario 3: Fundamentals are weak or not improving, but they're better than the market thinks. This is the turnaround situation, or what Buffett calls "one-puff" investments: finding a business, like a cigar, that has one good puff of investor payback left. Also included are asset plays situations in which the business itself may be in a difficult phase, but the underlying assets, including cash, natural resources, real estate, and patents, have value beyond the current stock price. Bank and building industry stocks are a good recent example.


Riskier and harder to assess, Scenario 3 is often best left for the professional investor. Turnarounds often don't turn around, and precise asset appraisal is difficult. Value investors specializing in Scenario 3 investments often look to unlock value by acquisition. Predicting and valuing turnarounds, asset plays, and acquisitions is challenging. The hard part is figuring out how and when the value will be unlocked. For this discussion, we'll stay closer to Scenarios 1 and 2: attaching price to strong or improving fundamentals.

## All in the P/E Family

By far, the most popular valuation tool is the price to earnings, or P/E ratio. It's in every newspaper, Web site, and cocktail party investing discussion. P/E will furnish a cornerstone for this pricing discussion, too, although there's a lot more to $\mathrm{P} / \mathrm{E}$ than meets the eye. Once well understood, $\mathrm{P} / \mathrm{E}$ is one of the major ways that investors make sense of the price tag. This chapter examines $\mathrm{P} / \mathrm{E}$, its components, drivers and alternatives, and how to deploy it to price a business.

The $\mathrm{P} / \mathrm{E}$ ratio is the main thread that attaches price to value: $P$ is price and $E$ is earnings - the fundamental end product of the business. Through $E$ and growth projections, $\mathrm{P} / \mathrm{E}$ connects price with the intrinsic and strategic valuation presented in Chapters 11 through 14. As this connection is explored, related valuation measures such as price to book $(\mathrm{P} / \mathrm{B})$, price to sales $(\mathrm{P} / \mathrm{S})$, and price to cash flow (or "free" cash flow) will also be covered.

There is no set formula for applying P/E. "If it's 17 you buy, and if it's 25 you sell" doesn't work. A deeper understanding of the P/E and underlying fundamentals is required. The following sections provide some of that depth.

## Lesson 1: Earnings yield

What is $\mathrm{P} / \mathrm{E}$ ? It is the ratio of share price to earnings. But there's more information here than meets the eye. First, P/E tells how many years it would take to recoup an investment if earnings stayed the same. A P/E of 17 means that

## The many faces of $\mathrm{P} / \mathrm{E}$

P/E is the ratio of the stock price to annual earnings for a company. Seems like P/E should just be $\mathrm{P} / \mathrm{E}$, end of story, right? A simple snapshot comparison of price and earnings. Price is pretty clear: today's price. But how does one define today's earnings, since earnings aren't a snapshot item but represent instead activity for a 12 -month period? Which 12 -month period? The one just finished, the one upcoming, a combination? Actual performance or an extrapolation of the most recently completed quarter? Indeed, $\mathrm{P} / \mathrm{E}$ is influenced by the period used to identify earnings, and some important lessons can be learned by looking at different $\mathrm{P} / \mathrm{E}$ figures. Also important to recognize: Different data sources calculate P/E differently, so watch out!

To illustrate the point, we'll share different cuts of $P / E$ and $P / E-$ related measures, many of which are found in the Value Line Investment Survey. Figures are found at the top and in the body of each company's Investment Survey page.
$\checkmark$ P/E in Value Line is calculated by dividing recent stock price by the total of the last six months' actual earnings plus the next six
months' estimated earnings. This is a realistic way to do it. Many publications take the most recent 12 months' actual, which is okay but a little conservative. It can also overweight one-time events up to a year ago.

- Trailing P/E is price divided by the last 12 months' actual earnings, often found in the newspaper. Value Line shows their current P/E next to the trailing P/E. Comparing current and trailing $\mathrm{P} / \mathrm{Es}$ is interesting: A current $P / E$ less than trailing $P / E$ says price may not have caught up with projections. Or there is risk and a wait-and-see attitude about the projection.
$\checkmark$ Forward P/E is P/E based on projected earnings for the next 12 months. This figure is found on many Web portals and is a quick and handy way to judge the future based on current analyst projections. Of course, you must decide whether you agree with the projections, or whether the business has changed to such a degree that they no longer make sense - home-building stocks are an excellent recent example.
$\checkmark$ Median P/E is the median statistical P/E figure exhibited by that company over the past ten years. A current P/E below the median shows possible underpricing or changes in business fundamentals. If the current $P / E$ is greater than median, the stock may be overpriced. Be careful to factor in interest rates. If interest rates are decreasing, then norm P/Es will tend to increase.
$\checkmark$ Relative P/E is a look at a stock's P/E versus the aggregate Value Line universe of 1,700 stocks they follow. Comparison can tell you whether a stock flies higher or lower than the market. To a great degree, that is a function of growth (we'll get to that) but also may indicate over- or underpriced situations.
$\checkmark$ Average Annual P/E tracks average price for the year (as opposed to recent price) divided by actual 12 -month earnings for the year. Whereas median P/E sums up the last ten years into a single figure, Average Annual P/E is shown for the span of Value Line coverage: 15 years on the sheets. This figure is good for analyzing trends such as $\mathrm{P} / \mathrm{E}$ and market behavior over time.

If you have Value Line, we suggest becoming familiar with these figures. If you don't have Value Line, make sure you understand where your P/E data comes from and what it represents. Depending on what resource you follow, generally you only get 12-month trailing P/Es unless otherwise noted.
with flat earnings, it would take 17 years to recover your investment. A P/E of 40 means 40 years. That's a long time, and should tell you that something else is at work to support a high P/E: Competent investors don't wait 40 years just to get their money back! That something is either growth potential or understated current earnings.

But a greater revelation occurs when the $\mathrm{P} / \mathrm{E}$ ratio is turned upside down. The inverse ratio, known as earnings yield, tells the annual percentage rate of return implied by the $\mathrm{P} / \mathrm{E}$. It is simply $1 /(\mathrm{P} / \mathrm{E})$. If $\mathrm{P} / \mathrm{E}$ is 10 , than $1 /(\mathrm{P} / \mathrm{E})$ is 0.1 , or 10 percent. If $\mathrm{P} / \mathrm{E}$ is 40 then $1 /(\mathrm{P} / \mathrm{E})$ is 0.025 , or 2.5 percent. This figure is the equivalent yield the investor would use to compare this earnings stream to another investment - a bond, for example. A bond returning $\$ 5$ on a face value of $\$ 100$ yields 5 percent. A stock returning $\$ 5$ in earnings on $\$ 100$ invested (stock price) could also be said to yield 5 percent, and would have a P/E ratio of, you guessed it, $20(\$ 100 \div \$ 5)$.

Earnings yield makes the meaning of P/E more clear, and makes more sense to trained investors. Earnings yield can be used to compare to other investments including, but not exclusively, bonds and fixed income investments. $\mathrm{P} / \mathrm{E}$ is just a number; earnings yield is a rate of return comparable across all investment forms.

The simple Table 16-1 illustrates the wide range of investment yields implied by different $\mathrm{P} / \mathrm{E}$ ratios.

| Table 16-1 | Converting P/E to Earnings Yield |
| :--- | :---: |
| $\boldsymbol{P} / \mathbf{E}$ | Earnings Yield |
| 1 | 100.0 percent |
| 5 | 20.0 percent |
| 8 | 12.5 percent |
| 10 | 10.0 percent |
| 12 | 8.3 percent |
| 15 | 6.7 percent |
| 20 | 5.0 percent |
| 30 | 3.3 percent |
| 40 | 2.5 percent |
| 50 | 2.0 percent |
| 60 | 1.7 percent |
| 75 | 1.3 percent |
| 100 | 1.0 percent |

## Lesson 2: P/E and growth

It would be nice if looking at price, $\mathrm{P} / \mathrm{E}$, and earnings yield was all there is to it. Find an earnings yield of 6 percent ( $\mathrm{P} / \mathrm{E}$ of 17), beat the bond, and move on. But you're buying equities, not bonds, right? Because you want to participate in company growth and success. And why do you want to do that? Because, simply, you want to leave that static bond yield in the dust - if not today, sometime in the near future. And you want to keep up with - or better yet, beat - inflation. So to do that, you assume some risk that earnings won't happen, but you're hanging your hat on growth and a stock price that keeps up with it.

Buy a bond for $\$ 100$; receive $\$ 5$ per year for $10,20,30$ years; never look back. Buy a stock for $\$ 100$, earnings per share constant at $\$ 5$ for 10,20 , or 30 years with no change? Should have bought the bond. Why? Less risk.

But suppose the $\$ 5$ earnings "coupon" grows at 10 percent per year. What happens at the end of year 10 ? Get out the compounding formula. Five bucks times ( $1+10$ percent) to the tenth power is $\$ 12.97$. If the price were to stay the same, your $\$ 100$ investment would be returning $\$ 12.97$ in year 10 , which is

## P/E and interest rates

After earnings yield is understood, it becomes easier to comprehend market-driven $P / E$ fluctuations over time. When rates are low, $\mathrm{P} / \mathrm{Es}$ tend to be higher. The reason: equivalent yield. Much has been made of the rise in P/Es to over 30 for the S\&P 500 (1998-2000) and the subsequent decline to the 18 range in the middle part of the "ought" decade. Some (not all) of this is due to lower interest rates. If 10 -year Treasuries (the best barometer for a risk-free rate of return) are under $5 \%$, the equivalent earnings yield - with
no growth prospects - converted to P/E, exceeds 20 . That's part of why the stock market was strong in the 2003-2007 period, and why a lot of analysts still thought it undervalued at the end of that period. A market P/E of 18 is attractive when interest rates suggest a P/E exceeding 20 , unless the market is worried about coming higher interest rates. That concern, indeed, helped drive markets lower as 2007 unfolded.
almost 13 percent earnings yield, or an implied $\mathrm{P} / \mathrm{E}$ of 7.7 at today's price. A pretty nice yield, which really means the price of your investment should go up, because it's worth more. Table 16-2 shows future earnings yields realized in the case of a bond with no growth versus a stock with a 10 percent earnings growth.

| Table 16-2 | Earnings Yield: Bond versus Growth Stock |  |
| :--- | :--- | :--- |
|  | Bond | Stock |
| Coupon/earnings yield | 5 percent | 5 percent |
| Investment | $\$ 100$ | $\$ 100$ |
| Year 1 return | $\$ 5$ | $\$ 5$ |
| Earnings growth | 0 percent | 10 percent |
| Year 10 return | $\$ 5$ | $\$ 12.97$ |
| Earnings yield (EY) year 1 | 5 percent | 5 percent |
| Earnings yield (EY) year 10 | 5 percent | 13 percent |
| Implied stock price (EY 5\%) | $\$ 100$ | $\$ 259(\$ 12.97 \times 20)$ |

So you can see that assessing growth is a major factor in analyzing a stock price through P/E. Above all else, earnings growth drives stock price growth. So value investors look closely at what the earnings yield is today and what will it be in the future.

## A PEG in a poke

As a sharp reader, you may be recognizing familiar themes as the topic of earnings growth and business growth is worked into the pricing model. Chapter 12 shows how intrinsic value is built on future returns as cash flows and particularly the growth of those cash flows. This concept connects well with the valuation ratio known as price/earnings to growth, or the "PEG" ratio, briefly introduced in Chapter 10.

PEG relates, or normalizes, the P/E to the growth rate. With PEG, apparently high P/E ratios are supported by forward growth. PEG thus becomes a better tool to compare stocks with different P/Es and different underlying growth assumptions.

By itself, it's hard to tell whether a P/E is good or bad. A stock with a P/E of 30 may be a better deal than another stock with a P/E of 15 . Why? Because of growth. A stock of a no-growth company with a P/E of 15 will never achieve an earnings yield beyond 7.5 percent (1/15). Meanwhile the company with a P/E of 30 , with a growth rate of 20 percent, eventually achieves an earnings yield greater than 20 percent. The analysis is similar to that shown in Table 16-2.

Enter the practice of normalizing $\mathrm{P} / \mathrm{E}$ by the growth rate. To do that, we divide all P/Es by the company's growth rate to create a ratio known as (price/earnings)/growth, or PEG for short. $G$ is the growth rate, expressed as a whole number (that is, the percentage times 100). So a company with a P/E of 30 and a growth rate of 20 percent has a PEG of 1.5.

This gives a standard for comparison. Company A with a P/E of 18 and a growth rate of 12 percent has the same PEG as Company B with a P/E of 30 and a growth rate of 20 percent. Are the two P/Es the same? 30 versus 18 ? Clearly not - until the underlying growth fundamentals are identified, apply PEG, and find out they are indeed priced equally.

Table 16-3 extends Table 16-2 to show the relationship between future earnings yield, P/E, and PEG. Watch what happens to PEG and future earnings yields as growth assumptions rise. Low PEG ratios (less than 2) correspond to high future earnings yields.

| Table 16-3 | Earnings Growth, Earnings Yield, and PEG |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Bond | Stock 1 | Stock 2 | Stock 3 | Stock 4 | Stock 5 |
| Coupon/Earnings <br> Yield | 5 percent | 5 percent | 5 percent | 5 percent | 5 percent |
| Investment | $\$ 100$ | $\$ 100$ | $\$ 100$ | $\$ 100$ | $\$ 100$ |
| Year 1 return | $\$ 5$ | $\$ 5$ | $\$ 5$ | $\$ 5$ | $\$ 5$ |


| Bond | Stock 1 | Stock 2 | Stock 3 | Stock 4 | Stock 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Earnings growth | 0 percent | 5 percent | 10 percent | 15 percent | 20 percent |
| Year 10 return | $\$ 5$ | $\$ 8.14$ | $\$ 12.97$ | $\$ 20.23$ | $\$ 30.96$ |
| EY (year 1) | 5 percent | 5 percent | 5 percent | 5 percent | 5 percent |
| EY (year 10) | 5 percent | 8.1 percent | 13 percent | 20.2 percent | 31 percent |
| Year 1 P/E | N/A | 20 | 20 | 20 | 20 |
| Year 1 PEG | N/A | 4 | 2 | 1.3 | 1 |

You can see that the PEG = 2 scenario corresponds to a future earnings yield of 13 percent. A PEG of 1.3 correlates to 20 percent, and a PEG of 1 correlates to a future earnings yield of 31 percent on today's investment price. On the other hand, if PEG goes up to 4 , implied future earnings yield is only 8.1 percent.

So what is a "good" PEG ratio? It all depends on the implied future rate of return you're looking for, which depends on investment objectives, risk tolerance, and current risk-free (bond) interest rates. A PEG of 2.7 or less implies a future earnings yield of 10 percent or more. Anything over 2.7, implying a future earnings yield of less than 10 percent, is probably less return at more risk than most investors desire. A PEG of 1 or less is great (but hard to find), a PEG between 1 and 2 is good, between 2 and 3 is marginal, anything over 3 should probably be avoided.

## Hurdle rates and the 15 percent rule

Warren Buffett looks at P/E and growth in a slightly different way, using socalled hurdle rates. A hurdle rate is what the name implies - a minimum level of compounded annual returns, or a "bar" over which a business, and thus a

## PEG is a tool, not the answer

PEG should be used as a guideline and an investing tool, but be careful to avoid overdependence on this quick, easy-to-calculate, and easy-tounderstand figure when making long-term investment decisions. The denominator in PEG is the earnings growth rate, and the careful value investor looks closely at growth assumptions and
supporting business fundamentals. PEG can be used as a selection or screening tool to identify stocks for deeper analysis, and also works at the end of the appraisal process to determine if price is in line with (or is lower than) corresponding growth prospects. But it, by itself, isn't the whole answer.
stock price, must be able to appreciate to be deemed a good investment. Part of Buffett's thought process: If an investment cannot clear a given hurdle, the capital is probably better deployed elsewhere. Typically he used a 15 percent hurdle rate as a standard for comparison.

Not surprisingly, the analysis examines current stock price, earnings growth, and potential future stock price based on that growth. If the growthsupported future stock price can appreciate at a compounded annual growth rate (CAGR) meeting or exceeding the hurdle rate, it is in buy territory. If appreciation potential is short of the required price growth hurdle, the stock is rejected. Either the current stock price is too high or the projected growth is too weak to meet the growth hurdle. At the risk of providing an oversimplified example, consider Coca-Cola, which recently sold for $\$ 60.50$ with annual earnings of $\$ 2.34$, a P/E ratio of 25.9, and an annual earnings growth rate of 13.3 percent.

The earnings growth rate is quite healthy for a company the size of Coca-Cola, a $\$ 28$ billion company in annual sales. But the fact that earnings growth trails the hurdle rate, that the P/E exceeds market averages (about 18 for the S\&P 500 at the time), and that the earnings yield is under 4 percent, you would be skeptical of Coke as an investment.

Taking the calculation further, you may project what Coke's EPS would be after 10 years:

$$
\$ 2.34 *(1+0.133)^{10}=\$ 8.16
$$

Then, calculate the stock price appreciation necessary to meet the 15 percent hurdle:

$$
\$ 60.50 \text { * }(1+0.15)^{10}=\$ 244.75
$$

Then, calculate the implied $\mathrm{P} / \mathrm{E}$ in 10 years:
$\$ 244.75 \div \$ 8.16$, or 30
The stock would have to command a P/E of 30 after 10 years, despite growing dramatically to reach that level - a P/E that is in all probability unrealistic. Put differently, the stock price is unlikely to grow at 15 percent given the assumptions made. Either earnings growth would have to exceed the current expectation, or the current stock price would have to be lower, to make the 15 percent hurdle.

So using this approach, you would probably reject the investment at the current price.

Before rejecting Coke altogether, you must consider whether the 13.3 percent growth rate is really right. If sales, profitability, and/or productivity are in for major improvement, Coke could still be a good buy. Don't forget the fundamentals underlying earnings and earnings growth.

## Lesson 3: Deconstructing P/E

You may have seen published figures for price to sales $(\mathrm{P} / \mathrm{S})$ and price to book ( $\mathrm{P} / \mathrm{B}$ ) ratios. These ratios can help clarify the current price of a stock and the context for that price. But do they relate to P/E? And if so, how? Does the relationship between the three ratios tell us something more about the business? Turns out, the answer is yes.

If we take apart $\mathrm{P} / \mathrm{E}$ (or more accurately its inverse earnings to price or earnings yield [ $E Y$ ), you'll see the relationship.

## Deconstruction \#1: Price, sales, net profit

The first deconstruction looks at price, sales, and profits:
Earnings/price (EY) $=$ Earnings/sales $\times$ Sales/price
Yes, yet another equation. But a closer look reveals familiar territory. Earnings/sales translates to net profit margin, which is a key measure of success. Sales/price is the inverse of the more common $\mathrm{P} / \mathrm{S}$ ratio. So the equation could be restated as:

Price/earnings $(\mathrm{P} / \mathrm{E})=(1 /$ profit margin $) \times$ Price $/$ sales $(\mathrm{P} / \mathrm{S})$
Now you can see that a given EY (or P/E) is driven by profit margins and the ratio of price to sales. A high P/S ratio may be justified by a high profit margin, because the resulting EY will be favorable. But if a company has a high $\mathrm{P} / \mathrm{S}$ but a low profit margin, the resulting earnings yield would be low, and the resulting investment would be suspect.

## What kind of PIS makes sense?

If Company A has a $\mathrm{P} / \mathrm{S}$ ratio of 4 , and Company B has a $\mathrm{P} / \mathrm{S}$ ratio of 1 , most investors would jump at the chance to buy Company B. Invest a dollar for a dollar of sales, and the profit margin will take care of the rest. Future growth is gravy. Many small businesses are bought and sold on this basis. But what if profit margins are chronically thin? The resulting earnings will suffer, and the price won't be justified, which is why investors shouldn't look at P/S in a vacuum.
$\mathrm{P} / \mathrm{S}$ ratios below 2 are generally considered attractive. But it depends on the profit margin. Some companies in basic industries or thin-margined retail are actually well below 1 . Ford has a microscopic $\mathrm{P} / \mathrm{S}$ ratio of 0.11 , but has been losing money, and even in good times had a net profit margin of only about 3 percent.

When P/S creeps up to 3, most investors become skeptical. Four or greater, and look out - unless profit margins and/or growth potential are exceptional. Microsoft, quite unlike Ford, has a net profit margin nearing 30 percent, so perhaps the apparently out-of-line $\mathrm{P} / \mathrm{S}$ ratio of 6.15 isn't so out of line, so long as the monopolistic profit margins can hold.

Again, like most other tools, $\mathrm{P} / \mathrm{S}$ deconstruction shouldn't be overused or overly depended upon, but it's a good way to check if price is in balance with sales and earnings potential.

## Deconstruction \#2: Price, book value, ROE

Earnings yield can be examined through another path: book value and profit return on book value, which is more widely known as return on equity, or ROE. A company with a high ROE is initially a good purchase candidate unless the price is out of line with the underlying equity. Enter the third "cousin" of P/E: the price to book, or P/B, ratio.

When buying a share of stock, ideally you would want to receive a dollar of owner's equity for each dollar invested. However, such is rarely the case. Accounting practices distort the true equity value of companies, and a dollar-for-dollar approach would omit growth and growth potential from consideration. So typically, most companies sell at a multiple to book value. Companies selling below book value are hard to find and may indicate overvalued assets or other forms of financial distress. The classic Graham value investing school called for buying companies selling at less than book value or working capital, but "clean" opportunities seldom come forward today.

## Sky high

Amazingly, in the 1999-2000 bull run, $\mathrm{P} / \mathrm{S}$ ratios went into orbit. Cisco at one point sported a P/S ratio of 30 ( $\$ 82$ on $\$ 2.65$ sales per share). With a $\mathrm{P} / \mathrm{S}$ ratio of 30 , net profit margin would have to be 100 percent just to get "down" to a P/E of 30 or earnings yield of 3.3 percent! High profit margins and high growth would be expected to be sure, but the business would have to grow an
awful lot to justify those kinds of valuations. Today, after a 66 percent "haircut" from the alltime 2000 high, the price is about $\$ 28$ on sales of about $\$ 6$ per share. That's a $\mathrm{P} / \mathrm{S}$ ratio of 4.7 on a net profit margin of around 22 percent. A lot of things have to go right for a long time to justify even the current price.

## Look out for "large numbers"

When a share price valuation is built on high $\mathrm{P} / \mathrm{S}$ ratios and very high profit margins, watch out for the "law of large numbers" and competition. The law of large numbers says that, sooner or later, things move toward averages or norms. The P/S ratio, and thus stock price, may be vulnerable to downside surprises if the margins prove unsustainable. Microsoft supports its price and high $\mathrm{P} / \mathrm{S}$ ratio with exceptionally high margins. That may be okay for market-dominant Microsoft, but
other "mortal" companies may be walking the edge of a cliff. Companies with very low P/S ratios and low margins may sustain price valuation with high sales or sales growth, but watch out for sales downturns. Retailers, especially glamorous "concept" retailers, often walk the edge of the sales downturn "cliff." As in golf, staying away from the edges and toward the middle is the best bet.

The equation:
Earnings yield (EY) = Earnings/equity (ROE) $\times$ Equity/price (1/(P/B))

## Or

Price/earnings $(\mathrm{P} / \mathrm{E})=1 /$ ROE $\times$ Price to book $(\mathrm{P} / \mathrm{B})$
So, as with $\mathrm{P} / \mathrm{S}$ and profit margins, a combination of healthy ROE and reasonable $\mathrm{P} / \mathrm{B}$ indicates value. Because of the wide range of accounting practices, hard and fast rules are less reliable, but companies with an ROE of greater than 20 percent and a $\mathrm{P} / \mathrm{B}$ of 5 or less achieving earnings yield with a balanced approach.

Chapters 13 and 14 devoted a lot to deconstructing ROE and understanding drivers and leading indicators. If a company has a good ROE story, present and future, and a relatively low P/B today, the investor may be in "value" territory.

Again, Microsoft provides the upper "bookend" to the P/B-ROE relationship, with a P/B of 10.3 and a stellar ROE exceeding 43 percent. More "normal" would be Hewlett-Packard, with a P/B of 3.6 and an ROE of 18.6 percent.


Again, the law of large numbers and competition can rear its ugly head at the least opportune moments. Very high P/B ratios may be sustained by very high ROEs, but very high ROEs themselves are hard to sustain (see Chapter 13).

## Is apples-to-apples important?

Should you compare these within an industry, too? Turns out, while that may be best, it's not so important. P/S ratios tend to vary between companies mainly due to growth, which translates well across businesses, while $\mathrm{P} / \mathrm{B}$ ratios vary because of asset valuation, which may be more industry-specific.

## Lesson 4: Price to Cash Flow

Today, much of the analysis you see or do goes beyond P/E. Many analysts and sophisticated investors prefer to look at price as it compares to cash flow or free cash flow - as truer indicators of business performance. Why? Because earnings can be managed while, especially over the long haul, cash flow is cash flow.

So today's investors are inclined to look at price to cash flow ( $\mathrm{P} / \mathrm{CF}$ ) or price to free cash flow ( $\mathrm{P} / \mathrm{FCF}$ ) ratios. The concept is simple: How much cash does the company throw back your way per dollar of cash invested?

Unfortunately, cash flow doesn't always give the best read on a business, especially in the short term. Fixed asset purchases and working capital adjustments (accounts receivable, inventory) often distort the short-term view, and so investors should look long term and at free cash flow. From Chapter 8, "free" cash flow is defined as net earnings, plus depreciation and amortization, less average annual capital expenditures, less (or plus) working capital changes.

Unfortunately, getting a valid free cash flow figure takes some work, especially to get the proper long-term view. You won't find these figures in most company financial statements, nor the newspaper or financial portals. Yahoo! Finance does show free cash flow on its "Key Statistics" page, but it's a shortterm view. And while Value Line provides many of the ingredients, you'll still have to do the calculations.

Regardless, if you can get to a dependable P/FCF figure, it makes an excellent business barometer and standard for comparison. "Earnings yield" can be replaced with "cash flow yield" for a truer indication of what you'll really get back from the business at the end of the day.

## Lesson 5: Quick rules for recognizing value and un-value

This lesson summarizes how to use $\mathrm{P} / \mathrm{E}$ and its "family" of measures to recognize value and un-value in stocks and stock prices. Many of these can be found in common stock screeners, so it's possible to use these factors not only for final valuation but also for stock selection.

## Value

First, find sound and improving business fundamentals - improving ROE drivers and intangibles. Then:

Earnings yield > bond yield (now or soon, some compensation for equity risk)

PEG 2 or less (growth at a reasonable price)
Stock price growth potential exceeds hurdle rate (e.g., 15 percent, 10 years, probably better than most other investments)
$\mathrm{P} / \mathrm{S}<3$ and profit margin $>10$ percent (good profitability at reasonable price)
$\mathrm{P} / \mathrm{B}<5$ and ROE $>15$ percent (good overall returns at reasonable price)
Shares of companies that fit the preceding factors (the more factors, the better) are more likely to be a good value for the price.

## Un-value

Earnings yield < bond yield with low growth prospects
PEG $>3$, with low or unsustainable growth
Stock price growth falls short of hurdle rate (e.g., 15 percent)
$\mathrm{P} / \mathrm{S}>3$ with low margins
P/B > 5 with low ROE

## Making the Buy Decision

Most of this chapter covers the use of $\mathrm{P} / \mathrm{E}$ as one of the main tools to relate price to company value. But a lot of space is devoted in Chapters 12 through 14 to calculating intrinsic and strategic value, and these only sort of came into the $\mathrm{P} / \mathrm{E}$ equation through earnings. Has the commitment to treat an investment decision like buying a business gone by the wayside?

As you may guess, the answer is "no." All pieces of that in-depth appraisal create a better understanding of the business, a better understanding of the fundamentals upon which earnings and future owner returns are based. They help shape the earnings estimate - and the investors' confidence in the estimates.

But it's worth raising a few more principles and thought processes to consider in the buying decision.

## What about intrinsic value?

Ten-plus pages of detailed price assessment using $\mathrm{P} / \mathrm{E}$, earnings yield, $\mathrm{P} / \mathrm{B}$, $\mathrm{P} / \mathrm{S}$, and hardly a word about intrinsic value? After 15-plus pages about it in Chapter 12? After repeated Graham and Buffett quotes about how cash returns and intrinsic value define the value of a business? Explanation, please.

The explanation is simple. If you went to the trouble to calculate intrinsic value, and you feel good about the answer as a measure of the worth of a business, by all means, use it. The formula is really simple: If price is greater than intrinsic value, the stock is overpriced; if it's less than intrinsic value, it is underpriced (for you math heads, that's buy if price to intrinsic value $[\mathrm{P} / \mathrm{I}]$ is less than 1 and sell if $\mathrm{P} / \mathrm{I}$ is greater than 1 ).

So do we cast aside P/E by using P/I instead? No. P/E and especially PEG look at the same things: earnings and growth. Intrinsic value looks at earnings growth in more detail, with varying growth rates. Intrinsic value also looks explicitly at the current interest rate climate and risk through the cost of capital, where P/E and PEG look at it only indirectly by earnings yield comparisons.

So, $\mathrm{P} / \mathrm{E}$ and its family are really closely related to $\mathrm{P} / \mathrm{I}$, and due to the complexity of intrinsic value and the fact that we've never seen a P/I ratio in the paper or other popular financial resources, it's good to know both approaches. Both the principles and the calculation provide valuable insight.

## What about that "strategic" stuff?

Strategic financials and intangibles, covered in depth in Chapters 13 and 14, mainly contribute to understanding the business and supporting the growth projections used in the pricing models. They can be especially important in determining upside or downside. If today's growth rate for Coca-Cola is projected at 13.3 percent, you can, by your own absorption of strategic financials and intangibles, decide whether this makes sense, and which alternative scenarios you want to emphasize. Value investors should never lose sight of leading indicators, and never be reluctant to re-evaluate a company if they change.

## Don't forget about cash and debt

No doubt it makes sense to look at business earnings, assets, and growth prospects. But wouldn't it be nice, if you're buying a business, simply to know that it has a lot of cash in the bank?

For most businesses, cash is king. It's worth what it's worth, and can be used for whatever you wish. Clearly, if you were to buy a business for $\$ 100,000$, and it had $\$ 100,000$ in unencumbered cash on its books, that'd be a heck of a deal, unless the company consistently loses money or is a target of a major lawsuit or something. The cash would give full value for your purchase price, and the business would be essentially free.

Now, that doesn't happen too often. But you will see cases where companies are flush with cash, best measured on a cash-per-share basis. A company selling for $\$ 15$ with $\$ 5$ in cash per share on its books has a much greater margin of safety than one that has only 50 cents worth. Small industrial laser tool maker Coherent, Inc. sells for about $\$ 30$ per share and has over $\$ 14$ per share in cash. That's a great cushion - such a good one, in fact, that at least a few big shareholders are wondering why some of it hasn't been paid out.


Now, when looking at cash, make sure to net out debt, at least the long-term variety. In fact, Coherent has about 75 cents per share of debt on the balance sheet, so debt isn't a major factor, and the cash appears to be unencumbered and have real value to the business. Also be careful about startups or other situations where a substantial chunk of funding cash may have just been received - companies with a so-called "burn rate" coming as the business develops.

As with many other value components, there's no hard-and-fast guideline as to how much cash a company should have or how many dollars per share in cash a company should have given a certain stock price. It's a judgment call; but in almost all cases, the more cash the better.

## Buy low, improve your chances

Value investors buy cheap. Why? Two reasons:
$\checkmark$ Provide a margin of safety.
Allow for proportionally better returns on dollars invested.

Probably the second most common investing mistake (after throwing good money after bad) is finding and buying a great company (with growth, intrinsic value, supporting fundamentals, and intangibles all there), but paying too much for it. Paying too much simultaneously creates downside vulnerability and limits upside potential. The mathematics of underperformance detailed in Chapter 4 should be reason enough to buy cheap and provide yourself with that safety margin.

## Part IV

## Becoming a Value Investor

The 5th Wave
By Rich Tennant


## In this part . . .

$w$
e offer information on setting goals and developing your own value investing style. We provide some commentary on how to figure out what works best for you. Because value investment choices go far beyond common stock, we present chapters describing mutual funds, bonds and convertible securities, real estate and real estate investment trusts, and other specialty investments.

## Chapter 17

## Special Packages: Funds, REITs, and ETFs for Value Investors

## In This Chapter

Using open-ended and closed-ended mutual funds in value investing

- Understanding real estate investment trusts (REITs)
$>$ Exploring exchange traded funds (ETFs) as an alternative to other managed investments

Any consumer knows that a packaged, bundled assortment of products is sometimes a better deal than buying items individually. Buying a PC bundle for one price is often a better value than buying the system components individually.

And any individual investor knows that he doesn't always have the knowledge, skills, or time to consistently pick out the best businesses in which to invest.

These two forces combine to motivate a look at investment products; that is, professionally established and managed investment vehicles created to give investors an opportunity to buy a packaged, bundled assortment of investments.

Although coming with a cost, these professionally designed and managed products can be useful to value investors in a variety of ways. This chapter explores the three largest groups of packaged investment products - mutual funds, REITs, and exchange traded funds (ETFs) - and how they fit into the scheme of things for value investors.

## Mutual Funds

Although the selection and ownership of individual stocks provides more for investors to do and more to talk about with their friends, mutual funds are the backbone of most investors' portfolios. According to the Investment

Company Institute, an association of investment managers, nearly half of all American households hold at least one mutual fund. And about half of all IRA and $401(\mathrm{k})$ investments are done through stock mutual funds.

Fidelity, Vanguard, Oppenheimer, and Putnam are all household names. The financial media continue to highlight mutual fund performance and give celebrity status to chosen fund managers. But so far, you've gotten the picture that value investing is a do-it-yourself enterprise, right? Research businesses, appraise them, and buy when the price is right. Value investors are trained to do their own analysis to find a few good companies to hang onto for the long term. So where do funds fit into the value investing picture?

The truth is, certain funds invest just as a value investor would individually. There aren't many, and the definition of "value" has evolved, but they do exist. And if you can employ a fund manager and a staff to do exactly what you would do, with all the expensive professional information at their disposal, well, why not? Berkshire Hathaway shareholders have done it for years, so why shouldn't you?

But fund investing isn't for everyone, and we'll get into the pros and cons in a moment. Know that each fund is different and distinct, and they all come with particular nuances with which the informed investor should become familiar. Even an experienced investor could get overwhelmed with the thousands of funds out there. With so many available, how does a value investor choose?

The first part of Chapter 17 explores traditional, or "open-ended," funds and their role in value investing as an alternative to selecting individual stocks. After covering traditional open-ended funds, their closed-ended cousins come into the spotlight. Then we get to the more distant cousins: REITs and ETFs.

This chapter doesn't provide in-depth coverage of the details and nuances of mutual funds and how they work. That's best left for other books and there are many - Eric Tyson's Mutual Funds For Dummies, 5th Edition, is one example.

## A short history

Although mutual funds as an investment vehicle first appeared in 1924, their legal form and regulatory requirements are largely products of the Investment Company Act of 1940, a law defining many of the rules for special entities known as "investment companies."

The function of investment companies is, at its essence, to avoid corporate level taxation - hence, double taxation - of fund returns.

In return for the tax exemption, investment companies must pay 90 percent or more of any earnings to their investors. Investment companies also have specific disclosure requirements and marketing rules to protect investors.

The first real mutual fund "boom" occurred in the 1960s, as markets rose and greater numbers of individual investors viewed mutual funds as a way to invest without engaging with the still-murky world of investment analysis and cigar-puffing full-service stockbrokers.

Mutual funds ebbed a bit as markets became more "democratized" in the 1970s and 1980s, with reduced commissions and consumer-friendly interfaces arriving from discount brokers. But they also got a boost from the advent of selfdirected $401(\mathrm{k})$ s and other retirement savings plans, and increasing popularity and widespread investing in the stock market. Mutual funds also kept up by setting up to be bought and sold through discount brokers.

The Internet boom of the 1990s made individual stock investing even easier, and the more aggressive investors started relegating funds to retirement savings, while investing nonretirement assets in individual stocks. That trend, of course, retracted with the dot-com crash, as many of those investors retreated to the safety of professional investment managers.

Now well into the first decade of the $21^{\text {st }}$ century, two factors are once again causing a shift away from traditional mutual funds: (1) the advent of ETFs as a lower cost, more liquid alternative, covered later in this chapter; and (2) the exposure of unscrupulous trading practices at some of the largest and most well-known traditional mutual fund firms.

Today, funds are still a good vehicle for getting started and for anchoring an investment portfolio. Today's value investor should know about traditional mutual funds, both closed ended and open ended, along with the REITs and ETF alternatives examined later in the chapter.

## How traditional funds work

You'll see funds grouped into two major categories: open ended and closed ended. The two are quite different. Open-ended funds are the "traditional" funds you normally see in the paper and hear about on the talk shows. While these funds dominate the investment company space, closed-ended funds can actually bring better values to an investor.

You'll see quotes for some of the 9,000-plus open-ended funds every day in the paper. Most are part of a larger fund family, such as Fidelity, Oppenheimer, or TIAA-CREF.

There is no exchange trading of the shares; open-ended fund shares aren't bought and sold among individuals, but rather between individuals and the fund company. Individuals send in money (either by check or through brokerage platforms). That payment immediately becomes part of the fund and is converted into new shares owned by the investor. Each share represents that
investor's proportionate share of the net asset value of that fund. If the investor sells or redeems shares, those shares go away and the investor is credited or sent a check for his or her proportionate share of the fund's net assets.


Not sure whether it's an open-ended fund or a closed-ended fund? Look at the symbol: All open-ended mutual fund symbols are made up of five letters. Closed-ended funds trade on exchanges, and therefore have a three- or fourletter symbol. Furthermore, open-ended mutual funds are usually listed in the Mutual Fund section of newspaper stock listings, whereas closed-ended funds are usually found in a separate Closed-Ended Fund listing.

## pricing

When you invest in a mutual fund, you actually buy a proportional claim of ownership to the underlying securities, usually a combination of stocks, bonds, cash, and other investments, according to the fund's charter and investment strategy.

The mutual fund share price is known as net asset value, or NAV. The NAV is determined by taking the total assets - securities and cash held in the fund less any liabilities or accrued expenses, divided by the number of shares outstanding.

The NAV fluctuates each day according to the market price movements of the underlying securities held by the fund, but it does not change based on additional investments or withdrawals from the fund. New investor dollars received by the fund become cash assets in the fund, while investor redemptions are matched by a reduction in cash assets and sometimes security sales, if fund cash buffers are used up.

There is no limit to the number of shares that a fund will issue. Closed-ended funds, on the other hand, have a fixed number of issuable shares. Openended funds must stand ready to buy back shares from investors every day, so ordinarily carry some cash in their accounts to handle these redemptions.

## Fees and expenses

Large mutual fund companies - such as Fidelity, Vanguard, and Oppenheimer - package, market, and manage an assortment of mutual funds ranging from a handful to hundreds (in the case of Fidelity). Managing a fund or fund family entails researching and choosing the investments, monitoring performance, paying investors, filing regulatory documents, and so on. And as you may imagine, these services don't come free. And, keep in mind, these companies are also out to make a profit.

The result - and you probably already know about this - most mutual funds charge fairly hefty fees for their efforts, ranging from about .50 percent to 2 percent of net asset value - annually - and higher. So if you have $\$ 20,000$ invested in a fund, you may be paying $\$ 100$ to $\$ 400$ per year just to manage and market the fund. (Yes, you as an investor do pay to market the fund to other investors through something known as a 12b-1 fee.)


That may not seem like much, but a quick trip over to Chapter 4 shows in eye-popping detail what market "underperformance" can cost - and a fixed fee coming out of your investment portfolio comes right out of your market return. Put differently, if your fund succeeds in earning 5 percent with its investments for the year, and it charges 1 percent in management fees, it is taking fully 20 percent of your returns as a fee for producing them!


If you're thinking about funds, make sure to know what the fees are and what you're getting for your money. But also remember that while fees can be high, you do get a service for them, and it may be well worth the expense to get professional management and to get stock selection off your plate.

## Load and no-load funds

Beyond fees and expenses, you'll often hear the terms load and no-load used to describe different types of funds. Load funds add sales charges, usually upfront and sometimes at the time of sale. These charges are often hefty, but can also be in lieu of ongoing management fees, making load funds sometimes work better for long-term investors. Many mutual funds give a choice between "A," "B," "C," and maybe "D" shares, allowing you to pick how much cost you want to pick up at the beginning, end, and/or during your fund ownership. Sales charges - the "load" - typically cover marketing costs but may not cover all management fees.

No-load funds, on the other hand, have no up-front or redemption sales charges but instead collect marketing costs and management fees by deducting them from the fund value. No-load fund fees can create a bigger drag on long-term performance.


Typically, the choice of load or no-load has nothing to do with the fund investing style, performance, or quality of investments. Rather, it has to do with what fees you want to pay and when you want to pay them. You can see that load funds may be better for the long run, because annual returns to you - or better yet, reinvested - have relatively little deducted from them. The full force of compounding power is unleashed. And, in some cases, backloaded redemption fees are waived if the fund is held long enough - usually 8 or 10 years in funds that use this practice. No-load funds, on the other hand, are better for shorter-term plays, because you don't get hit with selling or redemption fees, which can be as much as 5 percent of your investment value (by law, there is an 8-percent cap).

As a value investor, you should first look at whether the fund matches your own investing philosophy and style, and whether it has a good track record. If in alignment, then you should look at how fees are handled, and choose according to how high the fees are and how long you plan to hold the fund.

## A question of style

Moving on from the mechanics of open-ended mutual funds, it's time to explore how different funds, or kinds of funds, may suit your needs as a value investor.

There are literally dozens of types of mutual funds, ranging from the most aggressive small company speculative funds to stable, doughty, short-term bond funds. Bond, stock, international, U.S., growth, income, hedge, option, convertibles, tax-free bond, high-yield bond, government bond, and on and on - not to mention combinations of all the above, and of course, value funds. Covering the whole spectrum of mutual fund choices is beyond our scope and is better left to books and educational materials specializing in funds.

Mutual funds are, of course, grouped according to their primary strategy or sphere of investing - growth, income, emerging markets, Asia-Pacific, or even country-specific funds. These groupings naturally give investors an idea of what the fund is trying to do, not to mention being selection criteria for fund selection.

But the investing world has, thanks largely to mutual fund and stock investing portal Morningstar (www. morningstar.com), come to group mutual funds according to the type of businesses they predominantly invest in. "Type" in this case refers to (1) business fundamental profile and (2) size of the business.

The expression "business fundamental profile" is awkward but accurate. The style selector differentiates between "growth" and "value" labels for the fund, based on how fund investments align to specific valuation and growth measures. Morningstar analysts classify funds according to how their investments stack up with their peers on the following valuation measures:
$\checkmark$ Price to earnings (P/E) ratio (specifically, price to projected earnings)
$\checkmark$ Price to cash flow (P/CF)
$\checkmark$ Price to sales (P/S)
$\checkmark$ Price to book (P/B)
$\checkmark$ Dividend yield
. . . and the following growth measures:

```
    \checkmark ~ P r o j e c t e d ~ e a r n i n g s ~ g r o w t h ~
    \checkmark ~ S a l e s ~ g r o w t h ~
    \checkmark ~ C a s h ~ f l o w ~ g r o w t h ~
    Book value growth
```

If the majority of companies fall into the top tiers on valuation measures, the fund is considered a value fund. If the majority falls into the top echelon in growth measures, it is considered a growth fund.

## The Morningstar style box

Morningstar has developed a unique and generally accepted way to map a fund investing style: the Morningstar style box. The style box maps the business fundamental profile against the typical size of the company the fund invests in.

Figure 17-1 shows a style box example for U.S. stock mutual funds. Funds can be placed on the value/growth axis as either value, growth, or a blend, depending on how the spectrum of companies invested in score compare to other funds.

Here is how the size axis is mapped:
Small, or small cap: Companies with market cap less than $\$ 1$ billion
Medium, or midcap: Companies between $\$ 1$ billion and $\$ 5$ billion
$\checkmark$ Large, or large cap: Companies worth more than $\$ 5$ billion

Figure 17-1:
Morningstar stock fund style box, RiverSource MidCap Value Fund.


## Good, but not 'til the last drop

After a revision, this new Morningstar mutual fund style box framework went into effect in June, 2002. It superseded a much more simplistic way of classifying based on just two measures - the $P / E$ and $P / B$ ratios.
The additional depth is helpful. One of Morningstar's objectives was to make it easier for funds to mix styles; indeed, a "value" fund can own a few growth stocks and be considered a value fund if its holdings still center on companies with strong valuation. The fact that funds are judged relative to each other rather than strict valuation guidelines is also good.

However, while accommodating some "growth" stocks in a "value" fund, the approach still draws a distinction between "growth" and "value." As this book has stressed from the start, growth can be an important component of the value equation. Stated differently, a growth stock can be a value stock, and a fund full of growth stocks can be a value fund, if they use a rational, intrinsic-value based approach to select their stocks.

That all said, the style box is a handy way to classify funds for further research, and we can all applaud its simplicity and usefulness for giving a quick read on a fund's investing style.

## Researching mutual funds

If you plan to build traditional mutual funds into your investment portfolio, just as with stocks you'll need a solid approach to evaluate funds and information sources to do your research.

## What to look for

As mentioned, giving a complete guide for evaluating funds is beyond the scope of this book, but here are a few checkpoints a value investor may look at to start:

Style: From the style box, and more generally, what does a fund invest in, and how closely does it stick to that style?
Stated mission and objectives: What does fund management say about what it is trying to do?
Fees/costs: How do costs stack up against other similar funds? How much of a drag will fees put on your investment performance?
Top holdings: As a value investor, there's no better way to assess whether a fund is aligned to your style than to look at its specific investments. If those investments, especially the largest ones, pass your value judgment, the fund is probably on the right track. And don't be afraid to use these lists for stock investment ideas - but also know they are dated from the last fund report and may not be current.


#### Abstract

Performance (?): Intuitively, you may think performance is the first thing to check, but many fund investors save it for last. Why? Because the past may not predict the future, and may in fact indicate the fund is exposed to a fall - hence the question mark. The best approach is to evaluate funds against their peers in the same category rather than taking stated performance as prima facie evidence of success.


## Research services

There are many, and Yahoo! Finance gives a reasonable treatment in its "Mutual Funds" section. You can also research individual mutual funds by going to the fund company Web site.

But far and away the strongest portal and research service for the "consumer" investor comes from Morningstar (www. morningstar. com). Morningstar not only classifies funds and gives key summary facts, but with its "premium" service ( $\$ 15.95 /$ month or $\$ 145 /$ year in 2007) it also gives detailed research reports and analyses of hundreds of funds.

Morningstar puts a great summary onto a scrolling two-page browsing window. Three important "chunks" from that window include Portfolio Analysis Fees and Expenses, and Performance. Here they are in Figure 17-2, using a small value fund known as RiverSource MidCap Value as an example.

The style box is probably the first thing to jump out at you. Below that lies another grid showing the dispersion, or "ownership zone," of the fund. This relatively new feature shows how much - or how little - the fund manager sticks to the stated style. The rest of the page shows allocations to different sectors and to stocks versus other investments - useful but not prime real estate. Listed at the bottom are the Top 5 holdings and, importantly, whether the fund has added or subtracted from those holdings recently.

While the Morningstar summary gives the Top 5 holdings, other sources do better, giving the Top 10 or more. Yahoo! Finance and the fund's own site (at www.riversource. com) give the Top 10, and some fund Web sites may give a longer list for their funds.

Next on the Morningstar page is the Fees and Expenses summary. See Figure 17-3.


Figure 17-2:
Morningstar
Portfolio
summary,
RiverSource
MidCap
Value.

In the Fees and Expenses summary you can see the fund is no-load - there are no sales or redemption fees - and the total expenses, including the management fee, ran 1.16 percent as last reported, about the middle of the pack for this type of fund.

And next on the Morningstar page is the Performance summary, shown in Figure 17-4. You'll see this first, but perhaps you should look at it last that's up to you.

## RiverSource Mid Cap Value R4 RIMCVX <br> See Fund Family Data "•

| Fee and Expenses |  | 12-11-06 |
| :---: | :---: | :---: |
| Maximum Sales Fees \% |  | Actual Fees \% |
| Initial | None | 12b-1 0.00 |
| Deferred | None | Management 0.78 |
|  |  | Net Expense Ratio: Annual Report 1.16 (As of 09-30-06) |
| Redemption Fees \% | None | Net Expense Ratio: Prospectus 1.20 |
| Maximum Fees \% |  | Expense Waivers: |
| Administrative <br> Management | 0.06 0.78 | Disclosure: The investment manager and its affiliates have contractually agreed to |
| Total Cost Projections | Cost per \$10,000 | waive certain fees and to absorb certain expenses until Sept. 30, 2007, unless |
| 3-Year | \$381 | sooner terminated at the discretion of the |
| 5-Year | \$661 | Fund's Board. Any amounts waived will not |
| 10-Year | \$1459 | be reimbursed by the Fund. Under this agreement, net expenses, before giving effect to any performances incentive adjustment, will not exceed $1.1 \%$ for Class R4. |

Figure 17-3:
Morningstar
Fees and Expenses summary: RiverSource MidCap Value.

Total Cost Projections Cost per $\$ 10,000$
3-Year \$381
5-Year \$661
10-Year \$1459
be reimbursed by the Fund. Under this agreement, net expenses, before giving effect to any performances incentive Class R4.

RiverSource Mid Cap Value R4 RMCVX
See Fund Family Data


The Performance summary shows the usual graphs and charts; more importantly, it shows how this fund compares to others in its own category. The consistent "+" category comparisons and top percentile rankings speak well for this fund.

Those interested in funds and, in particular, the Morningstar page, will find more on the page and much more on the site.

## Fund Web site

Portals like Morningstar not only give a lot of information, but give it in a format that helps making comparisons relatively easy. You can screen funds to narrow the list, then check out the fund Web site to get more detail and to get a feeling for how a fund does business. Among items on the checklist, the fund site will usually provide stated mission and objectives, as RiverSource does:

> RiverSource Mid Cap Value Fund employs a deep value approach to investing, seeking low-priced stocks that are currently "out of favor" and believed to be temporarily undervalued in the market. This mid cap fund invests in domestic equities of mid-sized companies similar to the Russell Midcap Value Index and may offer strong appreciation potential relative to large-cap stocks but with less risk than small-cap stocks.

Fund Web sites are also a good place to read about the assortment, or family, of funds offered by a fund company.

## The case for and against traditional funds

Today there are about 3,000 stock-based, open-ended funds with some $\$ 6.4$ trillion in assets, according to the Investment Company Institute. So mutual funds are still a huge player, by one estimate owning about a third of all common shares outstanding.

Traditional funds are still a big player and are likely to continue to be, especially as managed retired plans like $401(\mathrm{k}) \mathrm{s}$ continue to use them. All investors, whether they choose to use open-ended funds, should know about them and their advantages and disadvantages. From a value investing perspective, here's a list:

## Pros:

$\checkmark$ Professional management: Mutual funds are, of course, managed by trained, and usually experienced, investment professionals. For them it's a full time job, and whether professional fund managers know more than you do, almost certainly they have access to more information than you do, including key individuals who work for companies. Most fund
managers track company events and conference calls and attend special investment conferences held by companies specifically for the investment professional.
$\checkmark$ Convenience: You probably aren't a professional investor, and so don't have time to engage in detailed value analysis, not to mention watch your investments closely on an ongoing basis. Funds and fund companies help out by doing the legwork and providing a customer service department, and provide a convenient way to invest in, say, businesses in "BRIC" countries (Brazil, Russia, India, and China).
$\checkmark$ Diversification: Funds provide an easy way to diversify your portfolio to own small pieces of many businesses, or to diversify into markets in unfamiliar countries or industries. However, it's easy to over-diversify more in a minute.
$\checkmark$ Safety: With diversification and professional management comes safety. Funds tend to take a smaller hit when markets go sour, and certainly less of a hit than you may take with two or three stocks.
$\checkmark$ Flexibility: The thousands of funds available provide plenty of choice. Additionally, the ability to easily switch between funds in a family can help you adjust to market conditions without triggering a taxable event.

## Cons:

$\checkmark$ Fees and expenses: As mentioned, fees and expenses, sometimes running as much as 20 or 30 percent of expected returns, can put a lot of drag on your investing portfolio.
$\checkmark$ Over-diversification: By nature, funds invest in a lot of companies; some are required to by their declared charter. As discussed in Chapter 4, over-diversification is a poor substitute for picking and focusing on a few good businesses, and tends to put a drag on returns. Good value funds shouldn't have more than about 30 companies in their portfolio, and for goodness sakes, don't invest in several funds covering the same space - they probably own the same stocks!
$\checkmark$ Institutional imperative: Professional management brings exposure to the so-called "institutional imperative" - the tendency for professionals in the same circles to do the same thing, a herd mentality of sorts. How many funds, regardless of their charter, owned Microsoft or AOL during the bubble? Like analysts who put a "sell" rating on a stock when it hits a 52 -week low, fund managers who follow the herd aren't doing value investors much of a service. A check of portfolio holdings can be a signal, but it's hard to ferret out the individuals from the pack.
$\checkmark$ Loss of control: Most value investors invest entrepreneurially; they like to have their hands on their investments as they would on a business. It's a fundamental tenet of the value investing style. Mutual fund owners cede that control, and may open themselves up for worse, as the recent insider trading scandals brought to light.

Tax exposure and treatment can be a major mutual fund downside. Mutual funds are required to pay out nearly all their net income each year - 90 percent by law. Depending on the type of fund, the payments can be doled out on a regular basis throughout the year or all at once at year end. Whether they choose to take the capital gain in cash or reinvest it back into the fund to purchase more shares, those investors who own the fund on the record date receive it all as capital gains or dividend income and are responsible for any taxes that occur as a consequence.
Capital gains occur when the portfolio manager sells a stock for profit. Because all gains must be paid out each year, this profit is passed proportionally to each shareholder, who in turn pays tax on the gain. When owning individual stocks, investors can time the sale of stock so as to minimize tax consequences. When owning a mutual fund, the timing on all buys and sells is under the control of the portfolio manager, who knows nothing of your tax situation.
Here's the danger: Especially if you buy a fund late in the year, the price - based on net asset value - may have gains built into it. You'll have to pay taxes on those gains - and you paid
whoever sold the fund for the gains as part of the sale price. The net effect is you pay taxes on someone else's gain. At year end, you'll get an unexpected surprise in the form of a reported capital gain.
The biggest capital gain surprises can come from older, established funds that made great investments long ago, such as Microsoft for $\$ 3$, for example. Funds that trade frequently, scoring high on turnover, also create capital gain exposure, more often and sooner. High turnover can signify tax inefficiency, as well as bring value focus into question. Percent turnover is reported by Morningstar and other information sources.

Especially if you buy late in the year, it's a good idea to find a fund's analysis of estimated capital gains for that year. These reports start showing up in September or October, and while sometimes well hidden, they usually can be found somewhere on the fund company site. You can also find out what the fund paid last year.

Of course, if you hold the fund in a tax-deferred account, like a retirement account, as many do, you don't have to worry about this.

## Closed-Ended Funds

Closed-ended funds, like their more populous and popular open-ended cousins, are investment companies set up to own securities portfolios. But unlike traditional funds, closed-ended funds trade on exchanges, and their prices aren't directly linked to the underlying value of assets held in the fund. As of 2005, there were about 800 closed-ended funds with about $\$ 370$ billion in total assets.

Closed-ended funds can provide a unique opportunity for value investors. Why? First, unlike open-ended funds, the market price of a closed-ended fund doesn't necessarily match its net asset value. Second, because price doesn't necessarily track value, and because closed-ended funds are less popular to the investing community, their prices tend to lag net asset value. That makes for possible bargains, and indeed, most closed-ended funds trade at a discount to their net asset value.

Closed-ended funds have actually been in existence as an investing vehicle longer than their open-ended counterparts. They differ from open-ended, or "mutual" funds, mostly in capital structure. Closed-ended funds are investment companies with shares listed on a stock exchange (some are also traded over the counter). Shares are traded between investors, not between an investor and the fund company. Like other publicly traded securities, the market price of closed-ended fund shares fluctuates and is determined by supply and demand in the stock market.

Because of the popularity of open-ended funds, closed-ended funds have become somewhat of a background player in the fund business. Because they are not major players, and their prices are relatively stable, closed-ended funds are not listed daily by most financial publications but are listed only at certain times. The best place to get a listing is the Monday edition of The Wall Street Journal or the Sunday New York Times or for individual funds, online. Price, NAV, and discounts or premiums are usually reported.

The price of a closed-ended fund is tied to the market value of the underlying securities. But it doesn't match NAV exactly. There is no process to peg the price to the NAV daily. Instead, the price is set by the market, based on supply and demand for the shares of the fund. In a sense, a closed-ended fund is a set of securities within a security - a basket of fluctuating stocks trading inside a traded stock shell. Closed-ended funds provide investors with two ways to make and two ways to lose money:
$\checkmark$ The underlying value of the securities portfolio changes.
$\checkmark$ The market's assessment of the value of the portfolio changes, which usually creates a discount or premium to portfolio value in the price of closed-ended fund shares.

## Are discounts common?

Most closed-ended funds sell at a discount. A recent sampling showed that more than two-thirds of equity funds trade at a discount, and more than 90 percent of international equity funds trade at a discount. Many discounts are modest ( 5 to 10 percent), but many are 30 percent or more.

## Why a discount, anyway?

There is much research and speculation about why discounts happen, but for our purposes, the debate isn't nearly as important as understanding a few of the most common reasons. When selecting a closed-ended fund, investors must determine the reason the fund is trading at a discount and whether the discount is significant enough to be attractive. A discount may be justified by uncertainty, popularity, or perceptions of the fund and the underlying asset base. All three factors can work to cause a fund based on securities in Russia or Turkey, for example, to sell at a discount. Likewise, during the heyday of the Asian Tigers, many funds based in Asia sold at a premium. The reason? Popularity and the perception of future growth and gains.

## Kinds of closed-ended funds

There are many types of closed-ended funds. The Wall Street Journal lists closed-ended funds under 14 different headings. You'll quickly note that most closed-ended funds are in fixed income categories like bonds and municipal bonds. For value investors, the so-called "specialized equity" and "general equity" funds offer the most interesting opportunities. Country funds, under the category "world-equity funds," also can be good vehicles to introduce international diversification into a portfolio.

Within closed-ended equity funds, value-oriented funds invest in defined categories like real estate or natural resources. A few strategy funds, like the Madison Claymore Covered Call Fund, employ covered call option writing strategies to extract income from equity positions, and pay more than 10 percent in annual returns. These may also be worth a look.

## Information, please

From an information perspective, closed-ended funds are treated like a blend of common stock and open-ended funds. But because they are a specialized, less-commonly-used, and less-understood vehicle, you won't find as much information in typical stock information sources. Still, Standard \& Poor's, Value Line, and others cover closed-ended funds. And closed-ended funds are equity securities, subject to the reporting requirements of any stock. So prospectuses, as well as annual and periodic reports, are all available. Most funds also offer phone support and access to information on their Web sites.

Closed-ended fund information can be found in Yahoo! Finance and Morningstar portals if you know the fund name and ticker symbol. Potential closedended fund investors should also check out the Closed End Fund Association (www.closed-endfunds.com) Web site to learn more about specific funds and closed-ended fund investing in general.

## Using closed-ended funds

Just as with open-ended funds, closed-ended funds have advantages and disadvantages. Closed-ended fund investors can expect diversification and professional management (although some question the quality of this management since managers aren't in the limelight as they may be at Fidelity or Vanguard). There are management fees, usually 1 to 2 percent, extracted from portfolio returns. Liquidity (relative lack of interest and trading activity) can be a double-edged sword: If you're selling, you may not get as good a price, but if you're buying, you'll likely get a discount. It's not hard to see that these funds should be considered long-term investments.

Closed-ended funds can be used to build out a portfolio or add specific components like international exposure. Patient value investors seek not only a good price (meaning a good discount), but also a fund with solid long-term potential. Many pros use closed-ended funds, including Warren Buffett. In 1972, Source Capital was trading at nearly a 50 percent discount to NAV. Buffett purchased almost 20 percent of the outstanding shares. Though the price fluctuated in the interim, Buffett hung in for 5 years before selling for an estimated $\$ 15.7$ million profit.

## Real Estate Investment Trusts

"They ain't making any more of it." How many times have you heard that phrase to refer to land and real estate, usually from smug real estate investors or real estate agents? Land would seem like a value investment. It's certainly long term, and the long-term price direction is clearly upward. For individual homeowners, there are tax advantages, too.

And in most economic environments, the fundamentals are strong: increased demand, fixed supply. Should you consider real estate as a value investment? And if so, how? Value Line doesn't publish investment summaries on the fiveacre parcel down the street.

But, in the manner of funds there is another investment "product" you can use to buffer against the ambiguities of owning a single parcel and take advantage of diversification and professional management: real estate investment trusts, or REITs.

## REITs - what and why

The details of REIT organization are beyond the scope of this book, but they are technically investment trusts that work like closed-ended funds holding real estate instead of stocks or bonds. REITs pool investor money to allow
average individual investors to invest in a portfolio of commercial, residential, or specialized real estate properties.

Face it - unless you're Donald Trump or were married to him, it is unlikely that you'll ever own a 25 -story building in New York City, a 100-unit apartment building in San Francisco, or a shopping mall in Dallas. REITs allow you to do just that. By buying shares in a REIT, you take proportional ownership in the real estate ventures that the trust owns. And these ventures range beyond traditional properties to health care and retirement facilities; ports and warehouses; even car dealerships, penitentiaries, and high-end hotels.

Certain REIT characteristics make them attractive to the value investor. Just like closed-ended funds, REITs trade on the NYSE, AMEX, and NASDAQ exchanges, often at a discount to net asset value. It is possible to focus on certain types of real estate or certain regions of the country.

And typically, they pay healthy yields, often in excess of 5 percent, while providing some downside protection.

There are about 190 publicly traded REITs with some $\$ 400$ billion of assets. REITs performed very well during the 2000-2002 market correction, and continued to perform well as real estate prices boomed in the middle of the decade, with a gain of 35 percent as a group in 2006, capped off with the $\$ 20$ billion acquisition of Equity Office Properties late that year. But as the real estate market soured in 2007, REITs, and particularly those in the mortgage business or with highly leveraged portfolios, tended to suffer.

Investors like REITs for their yield, their ownership with hard physical assets, their stability, and for long-term performance, estimated at over 13 percent annually during 1975-2005, which is better than most stock investments. Many investors pick REITs for their negative correlation with stocks - when stocks are doing poorly, REITs are doing well or are holding their own.

## Kinds of REITs

There are three primary types of REITs:
$\checkmark$ Equity REITs own and operate property. An equity REIT must develop its properties with the intent to operate it, not to sell for a profit. The income earned by an equity REIT comes from rent on the properties it owns. This is the most popular type of REIT.
$\checkmark$ Mortgage REITs can either lend money directly to buyers and owners of real estate or hold loans and other mortgage-backed securities. These REITs derive income from the interest on mortgages paid to the REIT or indirectly through the interest paid on the underlying loans.
$\checkmark$ Hybrid REITs actively own and operate real estate and make loans or invest in mortgage-backed securities. These REITs earn profits from the rent associated with ownership or from the interest associated with financing ownership or development of real estate through the mortgages.


Dividend income from REITs is normally not subject to the 15 percent maximum Federal rate legislated in 2003. Why not? Because, as an investment company, REIT income isn't taxed at the corporate level, and at least 90 percent of REIT income must be passed on to shareholders. You'll pay ordinary tax rates on this income.

## Information, please

Unlike most stocks and mutual funds, the REIT world has traditionally been a quiet, clandestine one known well only to the few who participate. As the real estate market boomed and yields expanded mid-decade, REITs enjoyed a resurgence. But REITs went for years, especially in the late 1990s, as slow, relatively unknown underperformers.

REITs are like common stocks, so many of the common stock research tools can be used to find out about them. Find a ticker symbol, and you can get a quote and profile from Yahoo! Finance. They are covered as common stocks in Value Line. To learn more about REIT investing, or to start the research process, the National Association of Real Estate Trusts (NAREIT) at www . nareit. com is a good place to start.


Yahoo! Finance also has good tools to identify and begin researching REITs. If you can find your way to the "Industry Index" inside the Industry Center (here's a URL: http://biz.yahoo.com/ic/ind_index.html), you'll not only get a list of REITs but also find a handy breakdown of the kind of property they invest in: Healthcare Facilities, Hotel/Motel, Industrial, Office, Residential, and Retail.

Even with these resources, research can still be challenging. Getting to exactly which properties are owned, what the rent and occupancy rate is, and whether the parking lot needs paving is pretty difficult. Just like stocks, you have to place a little faith in the assets, fundamentals, trends, and intangibles such as location and management track record.


The depreciation that the accounting process records each year is often overstated. Current accounting processes may call for depreciation
of a building (according to a certain formula) even though the real value of the building may have increased due to outside forces like increased demand or low supply of vacancies in the area where the building is located. For this reason, adding back the depreciation is a clearer way to measure the operating profits of one REIT against another. FFO is more like the cash flow measures used to evaluate other businesses, and in most cases more completely demonstrates annual performance.

## REIT advantages

Value investors should understand the advantages and disadvantages of REITs. Advantages include

Access: By pooling investor funds, REITs allow individuals to participate more fully in real estate beyond a residence or a small handful of additional investments.
$\checkmark$ Professional management: Individual investors receive the expertise and proven track record of real estate investment professionals.
$\checkmark$ Liquidity: Unlike investments in private real estate deals, an investment in a REIT gives the instant liquidity offered by stock exchanges.
$\checkmark$ Tax advantage: Unlike an equity interest in a corporation, profits from REITs are passed-through to the shareholder and only taxed once. REIT shareholders do not have to comply with complex filing requirements and tax statements of limited partnerships and other pooled real estate investments.
$\checkmark$ Selection: The wide variety of REIT offerings can provide investors the degree of focus or diversification desired. Some REITs diversify across geographic areas or types of real estate ventures while others are dedicated to areas as small as a single building in New York City.
$\checkmark$ I
Income stream: REITs offer a relatively stable and predictable income stream to investors - among the highest current returns available.

## REIT risks

Although enticing, an informed investor should understand that REITs have downsides, such as the following:
$\checkmark$ Market risk: The real estate market is the most obvious risk. If a prolonged downward pressure mounts on the real estate sector, the value of a REIT can decrease despite knowledgeable management and solid history.
$\checkmark$ Business risk: Investors in REITs must take into account current and anticipated economic conditions for the property held within the trust to evaluate the current and future success of the endeavor. Are the anticipated returns worth the risks involved to achieve it?
$\checkmark$ Interest rate risk: Especially for mortgage REITs, which buy and sell loans tied to real estate, a change in interest rates or mortgage liquidity can have a huge impact. With traditional REITS that hold real estate, a portfolio of long-term fixed rates may be valuable in the face of increasing rates, because the REIT owns its real estate for relatively less cost than other investors. But this can spell trouble if the rest of the investing world is paying lower interest on borrowed money, which is the case if rates fall after you make your REIT investment.

## Investing in REITs

Value investors strive to identify investments trading at valuations below intrinsic value. The objective is then to identify REITs with potential for significant appreciation relative to risk. Because REITs are generally regarded as hedges or defensive investments, they may be overlooked during bull markets.

Most recently, REITs in healthcare and industrial sectors have done well because they have both a real estate and a business component. Prologis, a REIT with worldwide logistics facility interests and a logistics business to go with it, is a good example.

And during weak economic times, REITs are fairly defensive and often hold up well because of the underlying stability of real estate prices and rent returns. That isn't to say they're immune, as has certainly been seen with mortgage REITS and some leveraged residential REITS recently.

## Selecting REITs

In some ways, choosing a good REIT is like choosing any other value investment. The assets are real estate, debt is like any other debt, and the returns are rents and other payments received on the portfolio. An investor must
analyze and compare a REIT's management quality, real and anticipated returns, yields, growth, reserves, and asset values. Many of the techniques covered in earlier chapters for common stock can be put to work here.

Price to earnings ( $\mathrm{P} / \mathrm{E}$ ) and price to FFO ratios are examined as they would be for other businesses - comparison among REITS and relative to growth rates is important. Also important is the price to book, or $\mathrm{P} / \mathrm{B}$ ratio. A REIT trading below its per-share book value is essentially trading at a discount. Remember that REITs are not immune to asset quality problems, bad management and management decisions, declining markets, or poor expense management. Do the due diligence.

## Property portfolio

REIT investors should check out the property portfolio. This isn't easy, but it's easier than it used to be with online resources, usually provided by the REIT company itself.

Because real estate is not traded regularly, the ability to ascertain values is limited to appraisals, replacement value, and, for income-producing properties, discounted cash flow analysis. Appraisals are difficult to find. Looking at the properties and their locations, and assessing commonly reported local real estate price trends, occupancy rates, and economic trends, and whether the book value of a property is sustainable, is probably best.

If the REIT you choose is diversified with a number of different types of properties in different geographic regions, you will experience less volatility if an industry or locale experiences hard times. If you are more concentrated, be sure that the type of property or the geographic area continues to be economically viable into the foreseeable future. Occupancy rates for past and current years are available for most major and some smaller cities in the U.S. from commercial real estate Web sites, and you may even wish to contact a local real estate professional.

## Funds from operations

Funds from operations, or FFO, includes all income after operating expenses, but before depreciation and amortization. Growth in FFO typically comes from higher revenues, lower costs, and management's effective recognition of new business opportunities. REITs with a growing FFO are generally more desirable, because this is a demonstration of an ability to raise rents and keep occupancy stable. Beware of dividends that are being paid out of profit from the sale of property or from cash reserves; these payments may not be sustainable.

## Debt and leverage

Good REIT managers will typically hold debt levels to 35 percent or less of the total capitalization of the trust. Some managers have long tenure and have weathered many storms. The lower the level of debt, the more conservative
management tends to be. Also, look for managers investing their own funds in the REIT.

REIT appraisal is difficult, but there is another way: REIT mutual and closedended funds, and there are even a few REIT ETFs. Many mutual fund families have funds built around REIT investments. REIT mutual funds are an easy way to get exposure to REITs without spending volumes of time researching the valuations of underlying holdings, vacancy rates, economic vibrancy, and so on. One way to find these funds is to enter "REIT mutual fund" in your search engine.

## Exchange Traded Funds

Exchange traded funds, or ETFs, are the latest and greatest thing in the investment "product" space. Essentially, ETFs are open-ended funds that, as the name implies, trade on exchanges like a stock. For the most part, they are not actively managed; that is, they track an index instead of being built on portfolio selections of a fund manager.

Since their inception in 1990, ETFs have ballooned in variety and popularity, growing from 180 choices in 2005 to some 400 choices today. Asset values have grown to nearly $\$ 500$ billion, or about 5 percent of the some $\$ 10$ trillion in traditional mutual fund assets. They are clearly the growth story in the fund space.

The mechanics of ETFs are beyond our scope, but ETFs are set up by large institutional investment companies like Barclays Global Investors or Morgan Stanley. That company buys a basket of securities to mimic the chosen index; then sells shares of the ETF. The basket of securities doesn't change unless the underlying index changes. So for ETF investors, there is little to no tax exposure to interim investment sales, and ETFs are highly unlikely to underperform or outperform their underlying index.

ETFs are listed on major stock exchanges, most particularly the AMEX and NYSE, with a few on NASDAQ. You buy and sell them through your broker, online if that's how you trade, and throughout the trading day as you would with any other stock.


Reduced fees are one great advantage of ETFs. Because they rely on index tracking instead of active management choices (and traditional fund marketing costs), fees typically run from .10 percent to .50 percent, compared to the 1-2 percent of traditional funds. However, fees are increasing for some of the more "exotic" ETFs starting go public.

## Types of ETFs

With 400 ETFs, growing by leaps and bounds with as many as 30 new funds added in a good month, you can invest in almost anything through ETFs so long as someone has created an underlying index for it to track.

Generally, ETFs fall into one of the following six major categories, or types:
$\checkmark$ Index ETFs: Index ETFs are the original foundation for the ETF movement. Traditional index ETFs track broad indexes like the S\&P 500 (the so called SPDR ["spider"], which is the way the Standard \& Poor's Depository Receipt ETF is best known) and the Nasdaq 100 Index with the catchy ticker symbol QQQQ, known in industry jargon as "cubes."

Index funds can also track more specific market divisions, like "large cap growth" and "mid cap value." These ETFs are sometimes called "style" ETFs.
$\checkmark$ Country ETFs: As the name implies, these funds follow country stock exchange indexes, and are available for most European and Asian countries, and some country groupings.
$\checkmark$ Sector ETFs: Sector ETFs generally follow industry segments, like financials, materials, consumer discretionary, and so forth.
$\checkmark$ Commodity ETFs: Commodity ETFs deviate a bit from traditional ETFs in that they usually don't track an index but often a specific commodity price, like oil.
$\checkmark$ Short ETFs: Some ETFs are set up to go up when a market index goes down. ETF provider ProShares offers a series of "short" and "ultrashort" ETFs covering general and more specific sector ETFs; if your bet is that technology will decline, you can buy the ProShares UltraShort Technology ETF. The fund tracks an underlying technology index, and adds leverage to give price movement double that of the underlying index.
$\checkmark$ Strategy ETFs: More recent entries into the ETF space, mainly by fund providers Claymore Securities and WisdomTree, are based on more creative indexes. WisdomTree offers funds, for example, tied to large dividend payers, domestically and internationally, and funds tied to conventional indexes, but with specially created indexes using different weighting formulas. Claymore offerings are still more creative, as exemplified by the Sabrient Insider Fund, tracking an index based on companies with strong insider buying, or the Clear Spin-off ETF, capturing companies spun off from larger companies.


As the ETF space proliferates, there's greater incentive for ETF companies to get more inventive - that is, to devise new indexes tracking ever smaller portions of the market, and to create new ETFs to track them. That's good, because we get more choices, and can direct our value investments to more exact choices. But it can be bad, because as ETFs get narrower, they're
obviously more vulnerable to changes in those markets, and fees will likely be higher. True value investors should applaud the new choices and be prepared to research the ETF further to decide whether the index really contains "good stuff."

## Actively managed ETFs

As you may expect, as the fund industry watches the shift toward ETFs, the tendency is to offer some degree of active management in the easy-to- use ETF package. Naturally, active management throws away some of the ETF advantage, especially in reduced fees. Actively managed funds are still more of a concept than a reality, but have emerged overseas and are likely to become more widespread in coming years.

## Researching ETFs

As the ETF space grows, so do the research tools. Yahoo! Finance and Morningstar now both offer portal pages to select and examine specific ETFs. There are also specialized Web sites (enter "ETF research" into your search engine). To get the most information, including knowledge of the underlying index, it's probably best to go to the fund provider site - there, you can find a complete catalog of ETFs offered by that provider with some detail.

## ETF providers

The list is growing fast but major providers and their "brands" include the following:

```
~ Barclays Global Investors ("iShares")
\checkmark ~ S t a t e ~ S t r e e t ~ G l o b a l ~ A d v i s o r s ~ ( " S P D R s " , ~ " s t r e e t T R A C K S " ) ,
\ Rydex
V Merrill Lynch ("HOLDRS")
\checkmark ~ C l a y m o r e ~ S e c u r i t i e s
\checkmark ~ W i s d o m T r e e
~ PowerShares
~ ProFunds (ProShares)
```

Enter these brands in your browser to get to their sites, or most are accessible through the Yahoo! Finance and Morningstar portals.

## What to look for

As with traditional mutual funds, you should understand fees, and it's a good idea to understand the underlying index and what's contained in it. Portals and fund sites offer listings of at least the largest holdings. Performance isn't
as much an issue - since the ETF tracks an index, you need to know index performance, but in this case you aren't evaluating management performance.

At the end of the day, the amount of research required depends on how you're using the fund. If you're looking to anchor part of your portfolio on S\&P 500 index performance, you probably don't have to do much research. If you're looking to track a more specific market niche, like a specific country, sector, or strategy, more research is in order.


Generally, ETF investing requires less research than individual stock investing, which is why a lot of investors choose ETFs at least for part of their portfolio.

## Using ETFs in practice

Like other investment products, ETFs can play important roles in a value investor's portfolio. Primary advantages include lower fees and diversification, while disadvantages include, well, diversification. Why? Because ETFs take you away from picking the best businesses and into investment pools with 20, 30 and sometimes more names. By definition, ETFs don't outperform the sectors they invest in, and in practice, most ETFs do not outperform a carefully selected stock portfolio.

That said, value investors can use ETFs in the following ways:

- Buy sectors: As seen with the Financial sector in 2007, value investors can decide that an entire market sector is beaten down below its perceived intrinsic value (trying to do the intrinsic value math on an entire sector is likely a futile exercise!). So value-oriented investors may buy ETFs in beaten down or out-of-favor sectors - or even countries, if so intrepid and inclined.
- Buy traditional value: Some ETFs are tied to traditional value indexes Midcap Value, for example - so a value investor may invest in a few specific businesses, then deploy a portfolio segment to broader coverage.


## $\checkmark$ Buy value strategies: The aforementioned Claymore and WisdomTree

 strategy funds align well to certain value strategies, such as dividends, insider buys, and spinoffs. If an ETF tracks a strategy you like to use in your other investments, look deeper.
## How Value Investors Use Investment Products

To be honest, if you're an experienced investor with time on your hands and all the right information and tools at your fingertips, you may not need investment products. But if you're just starting out, don't have time, or need to build out a portfolio, they may make sense.

Investment products have investor benefits, not just investing benefits. Selecting stocks can be a daunting chore for busy people. Although you may be a skilled and knowledgeable investor, you may not have the time or inclination to be actively involved in tracking detailed financial information and selecting stocks.

One popular strategy for getting started in value investing is to use all the tools and skills that you pick up in this book to start picking stocks on a small scale. A few funds, like a core value-oriented fund or ETF, can put the remaining bulk of your investment dollars to work. Practice makes perfect. As you gain confidence with your stock selection skills, you can move more dollars into individual equities and allocate fewer dollars to funds.

Funds and investment products can also be a great tool to round out a stock portfolio. You may not feel comfortable choosing foreign stocks, small company stocks, or stocks in some other specialty area. You can get exposure to these areas while getting the help of professional money managers.


Funds, and their choices, can also light the way to individual stock selections. Although some are reluctant to provide up-to-the-minute lists of selected stocks (they're required to twice a year), their investment lists, and top investments in particular, can initiate your own research into these companies. Most interesting is to follow the funds of value "gurus" (see Chapter 3) like Bill Nygren and Bill Miller, and of course, Warren Buffett. Imitation is not only flattering, but it can give you good ideas and save a lot of time.

Bottom line: Whether or not you're a do-it-yourselfer, funds and other investment products have their place.

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## Chapter 18

## Shopping for Value: A Practical Approach

## In This Chapter

$>$ Trading off between philosophy and practicality

- Understanding different kinds of value investing situations
- Using a condensed appraisal approach and checklist
$>$ Managing your value investments once purchased

Famed fund manager and value protégé Peter Lynch, in his famous book, One Up on Wall Street, shared this wisdom: "Once you're able to tell the story of a stock to your family, your friends or the dog, and so that even a child could understand it, then you have a proper grasp of the situation."

Value investing boils down to finding a good business, analyzing it to find the simple truths about it, and deciding whether the truths are on track and the price is right. This chapter sets out to distill the knowledge and background presented throughout book into a workable, practical approach for everyday use. It will be sort of a Reader's Digest version of value investing, if that helps.

## The Thought Process Is What Counts

As the old adage goes with gift giving, in value investing it really is the thought that counts. Or more precisely, the thought process - how you think about your investments and investment decisions - that's important. Analysis doesn't decide for you; it only serves to support the thinking behind the choices you make.

Throughout this book, we cover many analytical building blocks and approaches to appraising company value and many ways to decide whether the price paid for that value is right. But we also repeatedly come back to the point that no single method works all the time, and if one did, everyone
would make the same findings and buy the same companies and values would no longer be values. Every article, every book, every value investor has a unique application of the value investing thought process.

The thought process is the intellectual process - the philosophy - that the value investor internalizes. The tools are there to help, and different tools will help more at different times. If you strive to understand the business value underlying the price before you buy, investing history will be on your side. As you get good at understanding value and price, your investment decisions and performance will only improve.

In the real, practical world of value investing, value comes in many forms. There is so much detail on any given company (much of which you can't know) that it often isn't realistic to become a walking encyclopedia on a company or its fundamentals. And formulas and ratios, although they work and can help, hardly can deliver absolute answers. Usually, taking a few shortcuts makes sense, reserving the deepest analysis to the most critical, difficult, and largest investing decisions.


As a practical matter, the so-called Pareto principle, also called the 80-20 rule, applies to investing as it does in much of business: 80 percent of the picture comes from 20 percent of the questions you may ask or facts you may collect about a business. If you focus on most critical aspects of a given business, you'll get most of the picture, without digging up 100 percent of everything about it. If this weren't the case, you'd spend six months analyzing each investment.

You can't spend days on each company, and you can't analyze all companies in the investing universe. This chapter outlines a simplified, practical approach to help the new value investor get started, and to help experienced value investors improve their game. You'll undoubtedly find yourself adding plays to your value investing playbook as you gain experience. And you'll also get better at finding that 20 percent that's really important.

## Recognizing Value Situations

As a value investor, you'll find that value comes wrapped in many different packages. The mainstream case covered in this book is the growth case, where solid and improving business fundamentals and intangibles point to solid business growth down the road, and where the market has undervalued that growth. That's arguably the most clear-cut, least risky, and easiest-tounderstand scenario. But other situations do present themselves, and although they may take weeks of professional-level analysis to fully grasp, they can be quite interesting. And in a few cases, they may be as easily justified by your own observations, common sense, and gut feeling as by the numbers.

Throughout most of this book you're encouraged to be a do-it-yourselfer. But in many of the special situations, do-it-yourself may not be practical. Some of these value drivers can be well hidden and subjective - like a company's breakup value. They often turn into value not through normal business results but by being unlocked through acquisitions and restructurings. For these situations it makes sense to rely a bit more on industry professionals and analysts, who have access to key, paid-for data and a lot of historical precedent. They can also pick up the phone and call the company itself or others who may have interest in the assets. Smart value investors know when to - and when not to - rely on the work of others.

The following sections provide a quick tour of the "situational" landscape.

## Growth at a reasonable price (GARP)

So-called "GARP" is the mainstream scenario of reasonable market valuation or undervaluation - of growth potential. Solid and improving fundamentals and supporting intangibles are key. As part of the assessment the value investor must ask how realistic are the growth projections, particularly over time, and whether the company takes a balanced approach to the business and fundamentals. In short, is the business a good business, capable of sustained growth, and selling at a reasonable price? Key words not to lose sight of are good, sustained, and reasonable.

Or is the business a bet on an extreme but temporary success in short-term margins, market share, revenue, or profit? The $G$ in GARP must be sustainable, not based on a short-term blip, fad, acquisition, or worse, a wild hope. The business model and its perception in the marketplace must be solid and on the rise.

Stocks with a PEG ratio of 2 or less with other solid fundamentals are good candidates, but "GARP" is not a matter of ratios alone. The earlier example of Simpson Manufacturing may fit here, with solid fundamentals and strong growth prospects based on foreign markets, although the latter is far from a sure thing.

## The fire sale

Occasionally companies experience deep price declines due to actual or anticipated news or announcements. These declines can get out of hand, as more and more bad spin circulates in the market and investors (and institutions) head for seemingly safer waters. The decline is either a one-shot affair or a longer, momentum-driven decline. The one-shot affair is usually more attractive to the value investor, as it is often more of a short-term overreaction to news than a fundamental shift in the business.

## Getting creamed

The one-shot hit was recently exhibited by retail laser vision correction provider LCA Vision. Even though LCAV has no debt, pays a dividend (rare for a small cap growth stock), and has over $\$ 5$ in net cash, the stock lost 40 percent of its value, from $\$ 28$ to $\$ 16$ over three trading days with concerns about the economy and an ambiguous earnings outlook (the quarterly report actually beat expectations).

The shrewd value investor doesn't just go out and buy; he or she researches a situation to determine whether the business model really is broken. Running the numbers, visiting the stores, and researching the laser vision correction industry are all appropriate steps in this situation.


Other examples are too numerous to mention, but anytime a stock loses a quarter, a third, or half of its value in one day, it may be worth a glance. Just keep in mind that the reasons for these slaughters are sometimes justified, and the road to recovery may be difficult. There may be more trouble than meets the eye. At the same time, a value investor may find bargains among such distressed inventory.

## Misreading the tea leaves

Longer declines are illustrated by nearly the entire telecom and fiber optics sector in the 1998-2003 era: Long, slow persistent declines driven by everincreasing negative sentiment. The reasons are fairly obvious considering the history of telecom deregulation, the Internet boom, over-ordering, excess capacity, excess expectations, and subsequent bust. But still, most market players were focused on the short-term write-offs, layoffs, and lack of visibility; few looked at the long-term prospects for these businesses. These bust cycles happen all the time. Some are company-specific; others are inherent in their industry. Widespread negative sentiment can produce attractive buying opportunities.

## The asset play

GARP refers to growth, but what about assets? Sometimes it isn't the growth but the value of current underlying assets that points to value.

Although in the mainstream case, assets are in place only as resources upon which to build business growth and thus aren't valued separately, there will be cases in which the assets themselves create the value. In other words, the company owns them, but they aren't involved - or aren't completely involved - in producing the company's revenue and profit stream. Or they could be used more effectively somewhere else, or they simply aren't valued correctly on the books. The point is, their actual value exceeds reported value in the business as it is currently defined.

Actual value exceeds reported value usually in one of two forms: undervalued assets on the books or breakup values that exceed the assets' current value to the business.

## Undervalued assets

Both physical and intangible assets can be undervalued, sometimes significantly. Frequently this occurs with nondepreciable assets that have been held for a long time, such as land. Land is often carried on the books at purchase value, which is almost always less than current market value, especially if held for a long time.

The classic example is railroads, which hold millions of acres originally granted for free when they were built. Some of this land is used in the business, but a great majority isn't, especially for western roads. Something like 1 percent of all land in California is owned by just a couple of rail firms. Similar situations occur in oil and other natural resource businesses.

Intellectual property can also be undervalued (although in many cases, especially with acquisitions, it is overvalued, watch out!). Patents and other unique, homegrown know-how can have significant value, although corporate history is littered with companies (Xerox, Bell Labs [Alcatel-Lucent], IBM) that failed to capitalize on the wealth potential.

The key to undervalued asset plays is whether the assets are really that valuable, and what the strategy is for unlocking that value. Railroads until recently have done little to try to realize the value of their land assets. (Now, we're starting to see rail yards converted to downtown plazas, but sometimes at great expense for environmental cleanups.)

Look for companies with millions of acres or barrels on the books; examine current market prices; decide for yourself whether there's an opportunity. Then look for evidence that the company itself recognizes the opportunity. Union Pacific Corporation (a railroad parent company) for years not only looked to sell its rail-adjacent land but also to target potential customer companies who would build facilities along its lines and ship by rail. They had a whole real estate subsidiary set up around this idea. It was a good strategy, but so far, it's a drop in the bucket compared to potential.

## When the sum of the parts exceeds the whole

Big, stagnant, set-in-their-ways companies sometimes offer hidden opportunities. If they were to break into parts, each part would be free to focus on its core opportunities. Improved focus and reduced corporate bureaucracy can work wonders toward rekindling growth, satisfying customers, and building successful new brands. The classic example is AT\&T, whose breakup created billions in new business value (despite the fact that the breakup was far from voluntary).

We see it today in a lot of food companies (such as Kraft Foods) and even Procter \& Gamble, which has spun off several important divisions to J.M Smucker. And although the spinoff didn't go public, the Daimler-Chrysler breakup had a lot of value investors thinking about breakup value.

The key is to identify these companies; then try to visualize what they may look like as individual parts - as individual businesses. It isn't always a successful strategy, because new overhead must be created to run each business, and synergies are lost. A breakup of General Motors may not work because the dealer network and synergies of common parts platforms would be lost.

It makes more sense where multiple, unrelated, or poorly related businesses exist under one corporate umbrella. If the customers are different, technologies are different, or business models are different, separation sometimes leads to value. Hewlett-Packard and Agilent Technologies (one selling technology end products and the other selling "things that make things work" to other technology companies) made a logical break, but it took a long time for both companies to hit their stride in their marketplaces.

Markets tend to undervalue huge conglomerates. It is hard to appreciate and understand the value of each component in detail, so the investing and analysis public tend to discount what they don't understand.

So put all this together, and you may look at a General Electric or Procter \& Gamble and wonder whether there is more value than meets the stock pages. Listen to rumors, picture the transition, look for clues that management may be thinking along the same lines (a few small divestitures may be an experiment). This is an area where professional analysts can provide good information on which companies are "in play" and what their breakup value may be.

## Growth kickers

From time to time, relatively steady companies come up with small subsidiary businesses, sometimes related and sometimes not, that can perk up business growth. Telecom companies got into the cell phone business and 3M is sticking with the Post-It boom. Twenty years ago, the growthless Southern Pacific Railroad started using its right-of-way for telecommunications lines in a business that eventually became Sprint.

These kickers can kindle growth, rekindle growth, and provide good, saleable assets downstream. They may be like finding chunks of chicken in a bowl of soup - not there in every spoonful and maybe not there at all. But when a big company crows about a small new product or business development in its portfolio within its ranks, keep your eyes open.

## Smoke and mirrors

Some apparent asset plays can be a mirage. Find a company selling at a low price to book $(P / B)$, look at assets, and notice that per-share assets are higher than the share price. Is it a good buy? Depends on the quality and liquidity of the assets on the books. Large manufacturers and other capital-intensive companies often have overvalued assets on the books. If the
assets are largely based on buildings, equipment, and intangibles, watch out; but if they are cash, securities, marketable natural resources, land, and the like, there may be an asset-play opportunity. If there is a large cash hoard exceeding debt, make sure the company is cashflow positive or nearly so. You don't want this cash to disappear as "cash burn."

## Turning the ship around

Many companies go through restructurings, downsizing, and spinning off businesses deemed not vital to the core business. There is usually a "back-to-basics" and "focus" theme to these events, and they usually occur after extended periods of poor business results. U.S. automakers (particularly Chrysler) went through this years ago and are obviously doing it again, exemplified by Ford's "Way Forward" campaign. Airlines have done it, albeit with mixed results, and it's likely that the banking and lending industry will have to do the same.

Do turnarounds work? According to Buffett and many other professionals, generally not. A few do succeed, and when they do, there's usually a big impact on shareholder value. It happened with Chrysler, and again with Hewlett-Packard (whose problems, notably, were not as severe). Determining worthy value investments in these situations is difficult. Probably the best approach is to try to place a value on the core remaining business, as many did with HP's core printing business; then try to imagine how other units would fare either in a sale or with a successful turnaround. Again here, the work of professionals shouldn't be ignored.

## Cyclical plays

Generally, cyclical companies shouldn't be confused with value investments. Growth, although apparent in the short term, usually isn't sustainable. Investors are getting wiser and aren't as likely to bid up prices in good times, nor bid them way down in bad times, so this form of market timing doesn't work as well.

But occasionally companies caught in the cyclical pool come up with strategies to climb out of it, and move more steadily up and to the right. International expansion can reduce cyclical effects. Manufacturing companies diversify into more recession-proof financial services (which make more money as poor business conditions beget lower interest rates). General Electric has figured this out, and Ford has tried. Other smaller companies may have more effective cycle-beating strategies, because it's hard to keep such big ships as Ford and GE from turning when the wind shifts. If a company seems cheap and has something new in its portfolio to avoid cyclical price and earnings behavior, it may be worth a look.

## Making the Value Judgment in Practice

In full recognition of the fact that you probably aren't a professional investor, and you probably don't have time to drag your line on the analytic bottoms of the investing lake, it's important to offer a practical, simplified model for picking out value investments.

The goal is to boil the selection process down to something that could be handled in a half hour or less per company. Now for sure, it doesn't always work out this way, and one wouldn't commit $\$ 10$ million in capital to a company based on this analysis, but it provides grounds for making small investments or pursuing further research. At the end of the drill, you should, as Peter Lynch suggests, be able to tell the story of a stock to family, friends, and favorite pets. And most of all, to be able to understand, yourself, why you like or don't like a business as an investment.

## Real-life appraisals

The major steps are
$\checkmark$ Selection: Using the screening tools, mutual fund holding lists, or your own selections based on what you see in the marketplace, work the 5000 -stock universe down to 10,20 , maybe 50 to look at more closely. Pick a few and dig deeper.
$\checkmark$ Understanding the industry: This step is optional if you're already familiar, but understand industry dynamics, trends, industry players, and how your selected company fits in its industry.
$\checkmark$ Appraisal: Figure out what's right and what's wrong about a company. One approach that works is to identify the three greatest strengths and weaknesses, a mini-version of the "SWOT" analysis shown in Chapter 14. It's helpful to do a simplified one-page checklist covering financials, intangibles, and valuation in one page to clarify and summarize the story.

After you make the decision to invest, you're not done - downstream steps include tracking the story and deciding if and when to sell. As you may have picked up, these two elements can be drawn out over a very long time.

## Step 1: Selection

The first step is selection. Screening tools exist in many places to enter singular or multiple criteria to narrow the search. You can use predefined value stock screens, or customize your own in Yahoo! Finance or on a broker platform, emphasizing financial and valuation ratios. You can use Value Line selections highly rated for "Timeliness" or "Safety." You can watch the activities of favorite fund managers. Or you can use your own experiences and market intuition.

With experience you'll develop a screening path that best meets your investing tastes and objectives. If you can narrow your choices down to 5,10 , or 20 companies in which to dig deeper, your selection process is working. And so long as the appraisal step is performed, it really doesn't matter how it gets into the top of the funnel.


The old computer axiom "garbage in, garbage out" applies to stock screeners. Extraordinary events in the numbers can cause a company to have a distorted growth rate, ROE, P/E ratio, and so forth. In part, that's why the screen, by itself, doesn't work.

## Step 2: "Be" the industry

This step is optional: If you are already familiar with the industry, its players, and recent news and trends, it probably isn't necessary. But if you enter this process through a stock screen, chances are you'll come up with some company you've never heard of and will have to find out what industry it is in and learn a bit about it.

Financial portals, like Yahoo! Finance, are probably the best place to start the investigation of a screened candidate. The quote page provides, of course, the stock quote, and if you want, charts to observe past stock price performance. Don't spend too long here, because value investing isn't about price trends. But you can get an idea of what's happening with the company in comparison to the overall market, and you can see whether there is a possible fire sale situation. More importantly, there is a list of recent newswire items; from these news stories a picture of the company and the industry can be started.

The profile page then gives a synopsis of the company's business and financials, its sector and industry (under "Competitors"). The more detailed "Key Statistics" page further develops the financial picture.

As discussed in Chapter 14, there are many resources for intangibles, some straightforward; some harder to find. A cruise through The Wall Street Journal, Business Week, or any related trade magazine can build industry knowledge. Search capability makes Internet-based media outlets, like BusinessWeek Online, very helpful, and most information is free. And don't forget search engines - a few searches on the company and industry are likely to return good material.

Look for . . .
$\checkmark$ What industry the company is in (and if it doesn't fit one neatly, as in "Starbucks" and "restaurants," make a note of that).
$\checkmark$ General industry trends (buggy whips, most telecom, homebuilding and more recently, lenders are bad, energy, companies that export technology or food or other products may be good).
$\checkmark$ The role of your company in the industry (dominant player, number two and trying harder, vanquished and retrenching, and so forth). Look at market share and changes in market share.
$\checkmark$ Industry characteristics that may affect financial appraisal. This one's harder; it's hard to know from publicly available material that, for instance, booksellers can return most all inventory for 100 percent cash, reducing inventory risk and making otherwise large inventory balances not look so bad. Or that the ethanol industry is highly dependent on the price of corn and Federal and state legislation on ethanol blending. If you have the time (and it probably takes more than ten minutes), it's worth talking to someone in the business.

This book takes a cautionary approach to professional investment analysts and their work. But most of the industry reports they put together - based on professionally available information, industry contacts, and years of tracking the industry - are good and well written. These industry reports are worth looking at to understand an industry and its players. There are a lot of ways to get at these reports - some for free and some for a signup or a fee. If you have a broker (online or full service), that's a good place to start.

## Step 3: "Be" the business

You'll develop your own style for doing Steps 1 and 2, and Step 3 is no different. Step 3 is where the "do I want to buy the business?" decision is made.

The tools and techniques have been covered throughout most of this book; it isn't necessary to repeat them here. The important point is each investor will develop her own approach to doing the appraisal, and over time, these appraisals will become brief and to the point, especially at first.

The 80-20 rule comes into play here: Twenty percent of the analysis likely yields 80 percent of the answer. Value investors understand where to look to assess whether a decision can be made or further investigation makes sense to do - a bit like poking a toothpick into a baking cake to test whether it's ready or needs more time.

To help get started, you may want to develop a checklist. An example appears in Figure 18-1. Over time, this checklist will evolve - it may start out longer and get shorter as you understand better what to look for. Seasoned investors may be able to do away with it altogether, using a "mental" checklist instead as a seasoned manager working in the business may.

## Making the grade

Each appraisal "category" has a "grade" box next to it, and the sample form also allows for entry of a "trend" symbol. You can grade these categories as you wish, however. As these category grades are a composite of many different factors, the schoolhouse standard $\mathrm{A} / \mathrm{B} / \mathrm{C} / \mathrm{D} / \mathrm{F}$ seems to work. Some may use a " $0-4$ " scoring scheme to make it easier to add the numbers, but adding numbers to get a composite score is entirely up to you.

It's helpful to capture as many comments or observations as possible about each checklist element. First, it forces you to think about each element. Second, it's interesting to return to the analysis later to see whether your judgments made sense at the time. It makes each appraisal more of a learning experience, and that's a good thing.

## What's your scenario?

Uncertainty is a constant "given" in any business. The economy can and does change. Industries change, and the role and success of individual businesses within an industry can change, sometimes very quickly. As pointed out many times, the data and tools used to construct appraisals don't yield absolute answers. So a good appraisal strategy includes at least some attention to best-, worst-, and average-case scenarios. You may wish to "run the numbers" assuming the best and worst of sales, margins, expenses, intangibles, and so forth. If you don't want to do the numbers, it's at least a good idea to think through best and worst cases. At minimum, ask yourself what if things don't quite turn out right, what's the downside?

## If it looks good, there may be something better

Chess players are taught early on to keep looking for moves, even after they spot a good one, because a better one may be out there.

From this point on, the decision is yours. If a stock comes through the initial appraisal looking good, it's worth "running" a few more from your search. In our experience, it's also a good idea to run a competitor or two, just to confirm your selection is best.
Figure 18-1:
Value appraisal, short form.


## It Ain't Over 'til It's Over

One wonders what baseball sage Yogi Berra would say about value investing. Really, it's common sense and so practical that his philosophy would likely fit right in.

And one of his gems, "It ain't over 'til it's over," really fits. Supposedly, a value stock was to be acquired and kept for a long time, even a lifetime. True, but especially in today's world of change, business fortunes can turn on a dime, either as a result of macroeconomic and industry factors, or micro problems that escaped your initial read and surfaced during ownership. According to a recent study, the average stock fund holds a stock for 1.2 years, down from 3 years in 1976. Sure, some funds "trade" actively, but most don't - they simply react to change in business and business conditions.

Another way to put it: The speed of business is higher, and the speed of business change has increased. To hold a stock with a long-term goal of forever is a great idea, but things change so fast it just may not be possible.

## Keeping track

The point is that you have to keep up with your investments, even after purchase. If you were fortunate enough to do a good job up front, nighttime sleep should come easy. Stability and consistency are good things to have. But no longer is it possible to buy a company and stuff the stock certificate into your mattress. Even Buffett sells shares, and sells them every year.

The best way to keep track is to use many of the same tools used to make the investment decision in the first place. Watch the financials and intangibles through Yahoo! Finance, quarterly Value Line updates, and of course, the newspaper. Repeating the "short-form" appraisal every now and then doesn't hurt either.

A few words about selling. And now, the hardest part. You thought "marrying" the stock was difficult, full of unknowns and subjective assessments? Try the divorce! In investing, selling can be one of the hardest things to do. Investors get emotionally vested in their decisions, and hanging on becomes more a matter of hope - and desire to be right "after all" - than a rational, conscious decision based on a company's merit.

True value investors don't think this way. Value investors watch their businesses perform just as a good manager would, and when they stop performing, they get out. It's really one of the great attributes of stock investing: Investors don't get the headaches that managers and small business owners
get. When things turn, or when a better opportunity arises, they can just sell and move on. The upshot: Keep track the company's story, and be ready to reappraise and move on if the new appraisal comes up short.

## Making the "sell decision"

Most experienced investors know that selling takes more discipline and can be more difficult than buying - so a condensed thought process and framework may help.

Indeed, for value investors, the main rule about selling is this: The thought process is similar to the buying decision. A business must be a good business to consider owning it, and the price must reflect, or be lower than, the value of the business. Likewise, if the price exceeds the value of the business, it's time to sell.

Additionally, value investors should consider selling when
$\checkmark$ The business changes: Any change in fundamentals or the intangibles that drive them signal at least a re-evaluation, and perhaps a sale, of the business. So a changing marketplace, supply chain, interest rates, cost structure, management team - you name it - can trigger a reassessment and sale.
$\checkmark$ There's something else better to buy: Your company may be good, but perhaps there's a better one out there. Selling should only be done when there's something else better to buy, even if that "something else" is a fixed income cash deposit or a rental property or even a vacation home. If 5 percent risk-free is better than your investment right now, then that's the "better thing to buy." If there isn't something better to buy, then your investment is probably okay.
$\checkmark$ When you need the money: No additional explanation necessary.

# Part V The Part of Tens 

## The 5th Wave

By Rich Tennant


## In this part . . .

$w$
e present for your enjoyment some top-ten lists: ten characteristics of a good stock, ten indications of an overvalued stock, and the ten habits of successful investors.

## Chapter 19

## Ten Signs of Value

## In This Chapter

$>$ Looking at five tangible signs of value
$>$ Understanding five intangible signs of value


#### Abstract

Finding value in a business is both art and science. Every investor combines art and science in his or her own way to develop his or her own set of value tenets to guide the investing process. With that in mind, the following ten "core" signs of value are drawn from material presented earlier in the book. Tangible signs are financial fundamentals reflecting or leading directly to earnings and business growth, while intangible signs tend to be leading indicators of good financial fundamentals.


When all or most signs are present, the business is on the right track.

## Tangible: Steady or Increasing Return on Equity (ROE)

ROE is the bottom-line return on equity capital invested. ROE is a composite measure, combining internal measures of profitability, productivity, and capital structure. For ROE to increase, obviously at least one of these internal measures must be on the rise, and all three must be effectively managed to preserve the gain. As mentioned in Chapter 13, when companies such as IBM improve all three component measures simultaneously, ROE growth can be dramatic.

As companies earn money, that money goes into retained earnings or is paid out to shareholders. Steady or increasing ROE is a sign of health, particularly for companies with a strategy to retain earnings. For those companies, increasing ROE is an especially challenging and worthy goal because the equity base, or denominator, consistently grows. A company steadily growing ROE is usually firing on all cylinders.


#### Abstract

ROE greater than 15 percent and steady, or better yet, growing, is best. So is a balanced approach, where profitability, productivity, and capital structure are all improving. And share repurchases made to reduce the equity denominator, particularly when funded by excess cash generated by the business rather than external borrowing, are a good sign. Good ROE performance tells us that a lot of other things are going right, and is prima facie evidence of good management focused on the right things.


## Tangible: Strong and Growing Profitability

Nothing grows a stock price like earnings. Earnings growth will do it every time, yet for some reason, some investors invest without looking at a most important driver: profitability. Sales growth too can drive earnings growth, but sales growth sooner or later hits a wall. Investors forget that improving profitability is another path, besides sales growth, to achieve earnings growth. They also forget that declining profitability causes greater reliance on sales growth - a risky proposition.

Investors should look at total profitability and profitability trends. Like many other business fundamentals, profitability can be deconstructed into components: gross margin, operating expenses (particularly SG\&A), operating margin, and net profit margin.

High gross margin is a sign of market power, and market power is a leading indicator of improving gross margins. Expense growth rates should run lower than sales growth rates. Otherwise, economies of scale are compromised. Look at profitability trends and comparisons to like industry players. Effective management and solid market positions lead to improved profitability, and improved profitability leads to improved earnings performance and stock price performance.

## Tangible: Improving Productivity

Improving productivity is straightforward but often overlooked by casual investment approaches. Assets are resources employed by the company and contributed by shareholders to produce income. Is the company making good use of its assets? Is the company generating more sales and profits per unit or dollar of assets employed?

Look at both dollar and unit asset productivity. Find out the same store sales, sales per square foot, revenue per seat mile, revenue per employee, or sales per fixed asset or current asset dollar. Solid unit productivity numbers show strong markets and good management, while chronic declines and poor industry comparisons reflect the opposite, foretelling asset write-offs, increased capital requirements, and death by a thousand other cuts.

## Tangible: Producer, Not Consumer, of Capital

If a company generates enough cash from its operations to pay down debt and buy back shares, that's a good thing. If the company generates insufficient cash to grow or even maintain the business, that's a bad thing. Look closely at the statement of cash flows (particularly over time) to find out whether the company produces excess cash and capital that can be employed elsewhere to grow company value or that can be returned to you as dividends or, even better, share buybacks. Focus on cash sourced from operations, cash used for business investments, and cash obtained from or returned to capital markets as financing.

## Tangible: The Right Valuation Ratios

The market decouples price from the value of the business. As Warren Buffett says, price is what you pay, and value is what you get. If the markets were perfect, price and value would go hand in hand, but as we all know, markets aren't perfect.

Once you appraise the business value, look at price and use valuation ratios to connect the price to the business. The venerable P/E ratio is where most investors start, but it doesn't tell the whole story. Value investors look at present and future earnings yield ( $1 \div \mathrm{P} / \mathrm{E}$ ). PEG - price earnings to growth relates $\mathrm{P} / \mathrm{E}$ to growth rates and tells you something about that earnings yield future. The relationships between price to sales $(\mathrm{P} / \mathrm{S})$, profit margins, price to book ( $\mathrm{P} / \mathrm{B}$ ), and ROE are also important.

So a P/E of 25 or less is good given today's alternative earnings yields, but it doesn't mean that much without looking at the other numbers. A PEG of 2 or less, a P/S of 3 or less, and a P/B of 5 or less are good signs for growing companies, with lower figures expected for steady or transitioning companies.

## Intangible: A Franchise

Market power is tantamount to lasting earnings power, and a franchise (a market position that's difficult or impossible to duplicate) is the cornerstone of market power. An obvious, defensible franchise puts a company in a much better position to preserve and grow value. Strong franchises create a "moat" around the business. Companies that don't have a franchise are continuously vulnerable to competitive threats and must spend millions just to preserve the position they have.

Franchise drives improved current and future business results. Look for brand strength, product differentiation, intellectual property, international recognition, and channel position. If a company has something that another company can't reproduce regardless of resources, there is franchise value.

## Intangible: Price Control

A company in control of its product prices probably possesses franchise power and is using it effectively. A company that markets its products and competes on virtues other than price has good market position. That company is more likely to preserve and grow future profit margins. If price is the central issue in every buyer's purchase decision, that's a problem. If a company must continually compete on price or mark down its merchandise or services to sell them, look for future trouble.

Watch a company in the marketplace, including its advertisements and overall approach to marketing. Ever see a Ford or Chrysler commercial that didn't have something about price (or financing rates)? Ever see an ad from BMW or Mercedes that did? Well, never say never, but the German carmakers are competing on product and franchise, while their American cousins must depend on price. Companies in control of their pricing are typically in better position to deliver solid business results than companies that aren't.

## Intangible: Market Leadership

Market share is important in achieving price control and economies of scale in producing, marketing, and delivering products. A company with a large market share has an advantage, while those with small or declining market share must pay up just to catch up.

Look at the market position and share of a business and see whether it's a leader in its - or most of its - markets. Read industry reports from the trade press, financial press, and analysts. Then decide whether the company is there just because it got there first or whether it really has the products and franchise to stay there for the long term. If you decide that it's the latter, you're probably looking at strong business value, but watch yourself when you go to market. You may be required to "pay up" for that value.

## Intangible: Candid Management

Strong management and good leadership are often obvious just from a company's behavior. A company should achieve celebrity status in its industry and may even go beyond, such as GE did under CEO Jack Welch, or as HP later regained under Mark Hurd after years of questionable management "value" under Carly Fiorina.

The theory is that management that communicates with the press, with shareholders, and with its customers is probably doing a good job and has nothing to hide. The theory goes further to applaud management teams who do make mistakes and are able to admit them and correct them publicly. These management teams know what's going on and aren't afraid to deal with it, and they probably have the skills to do so.

And of course, outgoing behavior can be taken too far. Investors must be on guard for unrealistic promises or undue arrogance, especially during bad times, as we may be seeing at press time with Countrywide Financial CEO Angelo Mozilo. Make sure what business leaders are saying makes sense would you be saying and doing the same thing under the circumstances?

## Intangible: Customer Care

A company that appreciates the value of its customer base and capitalizes on that value is better positioned for long-term success. That company spends less to acquire new customers and has another "moat" to protect it from competition. Look for companies that know their customers and treat them as something more important than advertising targets. Look for situations of strong and unusual brand loyalty. Look for companies that manage customers as an asset to be valued, listened to, cared for, and retained -not a liability, where interactions and the costs of those interactions are the main focus. If a company is a faceless bureaucracy producing stupid products that customers don't want and if it has a reputation for poor service and response to customer issues, look out below.

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## Chapter 20

## Ten Signs of Unvalue

## In This Chapter

$>$ Looking at five tangible signs of unvalue
$>$ Considering five intangible signs of unvalue
$\bigcirc$ ometimes the best way to learn what something is is to observe what it is not. This chapter gives a few ideas of what to avoid in your quest for value.

## Tangible: Deteriorating Margins

Declining profit margins are usually a sign of trouble. Total earnings or earnings-per-share declines can happen in economic downturns when sales fall, but profit margins should remain relatively intact. Declining gross margins suggest declining market power, increased competition, product commoditization, deteriorating product mix, increased production cost structures, and a long list of other business evils. Declining net margins imply asset quality and efficiency problems and poor expense control.

Expenses, especially selling, general, and administrative (SG\&A), should grow at less than the sales growth rate. When expense growth matches or worse, exceeds sales growth, internal expense controls aren't working, and economies of scale are lost. Companies in start-up mode and larger companies with farflung worldwide operations have particular difficulty here. If expenses grow because of a well-documented and communicated strategic initiative, such as a customer acquisition or retention campaign, that may be okay. But nameless, faceless, and growing expenses lead to trouble.

And if the company is losing money rather than reporting profits, there had better be a real good reason and clearly articulated evidence of a turnaround. Unless it's a minor and explainable blip on an otherwise good long-term track record, there is no place in a value portfolio for a money-losing business.

# Tangible: Receivables or Inventory Growth Outpacing Sales 

If accounts or notes receivable on the balance sheet grow faster than sales, a company is effectively lending money to its customers to buy its products. This is a very dangerous situation.

Excessive growth in either receivables or inventory as a percent of sales, especially if persistent, indicates loss of market and channel power. Company-made products aren't being bought on their merits but rather because of the terms (receivables) or availability (inventory). If inventory increases are caused by poor management and control, there is exposure to missed deliveries as the company tightens the inventory belt, resulting in too little of the right inventory. These indicators signify more trouble inside the company and in the marketplace, and they consistently lead to write-offs and loss of business when they become no longer sustainable.

## Tangible: Poor Earnings Quality

If earnings appear to grow but you don't see matching growth in cash flows or book value, that's a sign that earnings are being generated on the back of accounting gimmicks. (Dividend payouts can also reduce cash flow and book value growth, so be sure to account for a high dividend payout.) With conservative accounting, cash flow should run consistently ahead of earnings with normal depreciation and amortization expenses.

## Tangible: Inconsistent Results

Value investors like consistency and avoid surprises in top-line and bottomline figures and everything in between. Companies prone to large write-offs raise questions about asset value and business decisions made over time. Good management teams react well to changes in market conditions and manage their businesses accordingly, while inattentive management teams let market conditions dictate their results - or worse. Look for steady margins, return on equity (ROE), asset productivity and valuations, expenses, and cash flows.

## Tangible: Good Business, but Stock Is Too Expensive

Generalizing about these topics is hard, but price to earnings ( $\mathrm{P} / \mathrm{E}$ ) ratio, price/earnings to growth (PEG), price to sales ( $\mathrm{P} / \mathrm{S}$ ), and price to book ( $\mathrm{P} / \mathrm{B}$ ) well in excess of market and industry averages spell trouble in making the numbers, as does overdependence on abnormal margins.

Look at P/E compared to the market and the industry. Or, think of it in terms of earnings yield. A P/E over 40, or an earnings yield below 2.5 percent, is hard to justify in any case, and over 25 is hard to justify unless the growth story is there and intact. PEG greater than $3, \mathrm{P} / \mathrm{S}$ greater than 3 , and $\mathrm{P} / \mathrm{B}$ greater that 10 are signs of overcooked prices and raise questions of vulnerability and value.

## Intangible: Acquisition Addiction

Acquisitions can be made for a variety of reasons, and many of them are valid. Plugging a product line gap or removing a key competitor from the marketplace can justify an acquisition. But when a company makes acquisition after acquisition, seemingly just to grow the business (that is, keep the top line moving), beware.

Acquisitions are almost always difficult, consuming company focus and resources and causing at least some customer confusion. These short-term ramifications can usually be dealt with, but occasionally the resulting structure and culture clash can bring down otherwise viable businesses. When management is focused on making and digesting acquisitions, it's not focused on the core business, which can drift quickly out of control. And every acquisition adds a little more air to the goodwill balloon on the balance sheet, perhaps causing it eventually to pop.

Look at a company's acquisition history and see whether the company makes good acquisitions. Look at the resulting product line, market acceptance, and corporate culture. Also look at the history and growth of goodwill. If this makes you nervous, stay away.

# Intangible: On the Discount Rack 

A company continually discounting or incentivizing its products is clearly having trouble in the marketplace. Airfare wars, computer price wars, car wars, and the like are a bad sign. And although many of the companies involved hang the limited-time-only justification on such activities, they tend to be chronic. If a company appears to always depend on price gimmicks to grow - or worse, maintain - sales, look out. Has anyone paid full price for a 12-pack of Coke lately?

## Intangible: Losing Market Share

Some companies seem to continually beat their heads against the wall just to preserve market share, and sometimes, a very small market share to start with. Chronic market share erosion is disastrous. Companies lose economies of scale and pricing power and may have to resort to expensive campaigns just to stem the tide. And it doesn't do much for internal morale, let alone shareholder morale. Signs are everywhere: from what you see on the shelves to what you read in the press to what the companies (sometimes) tell you themselves.

As a general rule, avoid companies under siege in the marketplace.

## Intangible: Can't Control Cost Structure

The inability to control the cost structure may sound the same as the deteriorating margins discussed earlier in this chapter, with emphasis on control and management of costs and expenses. But this one goes deeper - into the very cost structure of the business itself and the resources used to produce its products. Companies requiring tight resources over which they have little to no control are in a vulnerable position with little chance for above-average performance. Companies with expensive, frequently replaced, capital-intensive cost structures requiring continuous capital infusion also have bad field position with respect to value.

The airline industry is the classic example. Fuel, labor, airplanes, and airport slots make an airline work and together comprise perhaps 80 to 90 percent of an airline's cost structure. Yet, airlines have zero control over the price of any of these inputs. You know the oil story. Airlines are labor intensive and unionized, and their relationships with the unions have hardly been a strength.
Airplanes are made by two companies and have long lead times with competition for the best models. And airport slots and air routes are controlled by governments. Need we say more?

Airlines thus have almost no influence or control over the inputs vital to their business, and they're subject to dips and wide swings in profitability when one or more factors go out of control. They can't easily adjust or control their business. And if they do find a way to be successful and achieve higher returns, one of these constituents will want a piece of the action. Success is not impossible (witness Southwest Airlines), but the odds are against it.

## Intangible: Management in Hiding

It happens over and over. Management teams, once exuberant in talking up their successes, simply disappear when things start to go bad. Anyone seen much of Jeff Bezos or Michael Dell or Jamie Dimon lately? One could launch the argument that they're busy and focused on dealing with their business problems, but at the same time, one wonders. This is the opposite of management candor. Instead of publicly identifying and facing problems and articulating clear strategies for a return to success, they simply go into hiding. Now, you may not expect them to appear on CNBC every day to be considered candid, and you may not really care for celebrity managers. But if there's something important to say about the business, they should be around to say it.

And if they do come forth, it sounds like something you could have said yourself. "We've had a real tough quarter with this downturn blah, blah, blah . . . an unusually warm weather which cut into retail sales (when has the weather ever been good for retail?) . . . blah, blah . . . and have limited visibility to the immediate future . . . blah, blah, blah . . . but we're expecting things to improve by the end of Q4." Managers who admit mistakes, discuss what parts of the business are hurting, explain the customer context, review specific financials, and articulate strategies to revitalize demand in certain businesses and exit others get a higher score with value investors.

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## Chapter 21

## Ten Habits of Highly Successful Value Investors

## In This Chapter

- Doing your homework
$>$ Relying on your own instincts
$>$ Investing for the long term
$>$ Staying informed

Warren Buffett once said, "All there is to investing is picking good stocks at good times and staying with them as long as they remain good companies." Keeping this in mind, this chapter presents ten things to remember as you evolve your value investing style.

## Do the Due Diligence

As a value investor you must walk the walk - consistently, continuously, and with good form and focus. A value investor is rational and doesn't jump into an investment without knowing why. In business, you can't know everything, but you do need to examine the important stuff. Diligence continues beyond the purchase, keeping up with industry trends and company performance.

## Think Independently and Trust Yourself

Be your own analyst. Do your own research and figure out what works for you. Don't listen to sales pitches, gossip, and hype. Be different and be proud to be different. The more different you are, the more you're likely to make in the market - in the long run. Think and act independently.

You've all heard this or that portfolio manager or talk show host espousing the virtues of his favorite stock. Few give solid fundamental reasons for their picks, and in many cases, they may actually be pumping positions they're already in to make a sale. Remember, portfolio managers, Wall Street firms, and brokers are in the business to make money. Remember who's who and what they're likely to want.

As a value investor, you should do your own research founded on real numbers emerging from the business. Chat rooms, TV, and industry and analyst forecasts are dangerous replacements for your own thinking.

## Iqnore the Market

Smart, well-equipped investors continually try to time the market. That approach been generally proven to be a waste of time. But more than that, buying a stock because of its price moves - particularly upward - is usually the worst reason to buy. Focus on the business and fundamentals and look at the market simply as a place to execute the transaction.

## Always Think Long Term

This advice goes along with ignoring the market. A good business is a good business in the long term. Otherwise it isn't a good business. And never, ever forget the value of compounding and how negative performance negates its effects.

## Remember That You're Buying a Business

Approach a stock purchase as though you were buying a company for yourself, even if you're buying only a millionth of it. Look at it as a business, not a stock. Think inside out. Become an expert on the company and the industry understand the business. Know how it makes its money. Be able to explain the business, the industry, and your rationale for buying the stock to a 10 -year-old kid or any other bystander. By doing that, you'll get better at explaining it to yourself.

And don't forget that it's your own money. This applies to all investing, not just value investing. It's amazing how people throw good, hard-earned money at almost anything, spending as little as a couple of minutes to analyze and execute an investment.

## Always Buy "On Sale"

As a value investor, you want to own a good business, but value investing goes further than that. You want to own a good business at an attractive price. Sticking to this rule expands the potential return and creates the margin of safety, sort of a "moat" around your investment. When you buy at a favorable price, you create room for error and greater room for growth and tie up less capital. The excitement and satisfaction that you feel when getting a bargain in real life also applies to investing - with much greater long-term benefits.

## Keep Emotion Out of It

A Southwest Airlines flight attendant once admonished passengers who were apparently taking too long to select a seat, "You aren't buying furniture, folks, just picking a place to park it for the next 50 minutes."

The wisdom shared is about avoiding emotional attachments to stocks and the businesses they represent. If you "LUV" Southwest Airlines, don't invest in it until you like the numbers. And if the numbers look good and you invest, but they start to look bad later, be able to recognize that. Value investors continuously look for the good and the bad and keep their rational wits about them as they decide to buy and keep their investments. The purpose of an investment is to achieve a greater financial goal and not to become a member of the family.

Don't hesitate to admit your mistakes. As we want our management teams to do, so must we do for ourselves. Value investors admit their mistakes and learn from them. They take the time to understand what changed (or was overlooked in the first place), and they move on. They have a rational "sell" model and aren't afraid to sell a business when underlying reasons to own it have changed or if the price is way out of line with value.

## Invest to Meet Goals, Not to Earn Bragging Rights

Your investing should be aimed at one purpose: to earn money and build a secure long-term financial future. Other goals and objectives bring danger. Don't try to be better than everyone else, and bragging about your two-baggers at the water cooler is bad form and bad practice. Sound, consistent objectives, with a sustained, consistent approach for meeting them, work best. Be the tortoise, not the hare.

## Swing Only at Good Pitches

If something looks good, wait. There may be something better. This is one of the harder pieces of advice to follow. You see a company you like, and it's selling at 75 percent of intrinsic value. Fundamentals look good, but there may be a question about intangibles. Should you buy? It depends. If you pulled a screen of 20 companies, look at them all. Try a different screen. And if the ones you find are a good value today, chances are, if you're really playing for the longer term, they'll be a good value tomorrow and even a few days from now. Patience is a core virtue of the value investor.

## Keep Your Antennae Up

Stop, look, and listen. Always be on the lookout for signs, large and small, of opportunity. Be equally aware of what's going on with companies you already own. Own Starbucks? Visit the place and have a latte once in a while. Own Ford? Rent one the next time you rent a car. Hilton Hotels? United Airlines? You get the picture. If you own a business that makes air compressors and tools but have no need for these tools yourself, ask someone who does, such as your next-door neighbor/contractor. And if you wish to hang out in the rail yard counting tank cars as Mr. Buffett once did, remember to stop, look, and listen there, too.

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