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By John A. Tracy, CPA



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About the Author

John A. Tracy (Boulder, Colorado) is Professor of Accounting, Emeritus, at the University of Colorado in Boulder. Before his 35-year tenure at Boulder, he was on the business faculty for four years at the University of California in Berkeley. Early in his career he was a staff accountant with Ernst & Young. John is the author of several books on accounting and finance, including *The Fast Forward MBA in Finance*, *How To Read a Financial Report*, and *Small Business Financial Management Kit For Dummies* with his son Tage Tracy. John received his BSC degree from Creighton University. He earned his MBA and PhD degrees at the University of Wisconsin in Madison. He is a CPA (inactive) in Colorado.

Dedication

For our grandchildren — Alexander, Ryan, Mitchel, Paige, Katrina, Claire, Eric, MacKenzie, Madison, Tanner, Karsen, and Brody.

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One reason I like to write books goes back to an accounting class in my undergraduate days at Creighton University in Omaha. I took a course taught by the Dean of the Business School, Dr. Floyd Walsh. I turned in a term paper, and he said that it was very well written. I have never forgotten that compliment. I think my old Prof would be proud of this book and might even give me an "A" on the assignment.

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Introduction

You may know individuals who make their living as accountants. You may be thankful that they're the accountants and you're not. You may prefer to leave accounting to the accountants, and think that you don't need to know anything about accounting. This attitude reminds me of the old Greyhound Bus advertising slogan "*Leave the Driving to Us.*" Well, if you could get around everywhere you wanted to go on the bus, that would be okay. But if you have to drive most places, you'd better know something about autos. You do a lot of "financial driving," so you should know something about accounting as well.

Sure, accounting involves numbers. So does watching your car mileage, knowing your vital health statistics, keeping track of your bank balance, negotiating the interest rate on your home mortgage, monitoring your retirement fund, and bragging about your kid's grade point average. You deal with numbers all the time. Accountants provide *financial numbers*. These numbers are very important in your financial life. Knowing nothing about financial numbers puts you at a serious disadvantage. In short, financial literacy requires a working knowledge of accounting.

About This Book

This book, like all *For Dummies* books, consists of freestanding chapters. Each chapter is like a tub standing on its own feet. You can read the chapters in any order you please. You can tailor your reading plan to give priority to the chapters of most interest to you, and read other chapters as time permits. Of course, you could start on page 1 and continue straight through until the last page. The choice is yours.

I've written this book for a wide audience. You may be a small business manager who already has experience with financial statements, for example, but you need to know more about how to use accounting information in analyzing your profit performance and cash flow. Or, you may be an investor who needs to know more about financial statements, so your chief interest probably will be the chapters that explain those statements.

This book offers several advantages:

- ✓ I explain accounting in plain English with a minimum of jargon and technical details.
- ✓ I carefully follow a step-by-step approach in explaining topics.
- ✓ I include only topics that non-accountants should understand; I avoid topics that only practicing accountants have to know.
- ✓ I include frank discussions of certain sensitive topics, which go unmentioned in many accounting books.

I should emphasize one thing: This book is *not* an accounting textbook. Introductory accounting textbooks are ponderous, dry as dust, and overly detailed (in my judgment). However, textbooks have one advantage: They include exercises and problems. You can learn much by reading this book. If you have the time, you can gain additional insights and test your understanding of accounting by working the exercises in my *Accounting Workbook For Dummies* (Wiley).

Conventions Used in This Book

Learning accounting requires learning the fundamentals of financial statements. You get accounting information in other forms of communication (in bank statements and in business newspaper articles, for example), but financial statements occupy center stage. To understand financial statements you don't have to be an expert. But you should know how to extract the main messages from financial statements. Serious investors, investment analysts, lenders, and business managers, in particular, need a sure grip on financial statements.

Financial statements are presented according to established (one could say *entrenched*) conventions. Uniform styles and formats for reporting financial statements have evolved over the years and become generally accepted. The conventions for financial statement reporting can be compared to the design rules for highway signs and traffic signals. Without standardization there would be a lot of accidents.

I present financial statements throughout the book. Therefore, I want to take a moment now to explain the conventions for reporting financial statements. To illustrate these points I use the following example of an income statement for a business. **Note:** This business example is organized as a pass-through entity for income tax purposes and, therefore, does not itself pay income tax. (I discuss pass-through entities in Chapter 8.)

Income Statement for Year

Sales revenue	\$5,218,000
Cost of goods sold expense	<u>\$3,267,000</u>
Gross margin	\$1,951,000
Selling, general, and administrative expenses	<u>\$1,484,000</u>
Operating profit	\$467,000
Interest expense	<u>\$186,000</u>
Net income	<u><u>\$281,000</u></u>

Here are the conventions to keep in mind:

- ✔ It may seem obvious, but you read a financial statement from the top down. *Sales revenue* is listed first, which is the total income from the sale of products and services during the period before expenses in the period are deducted. If the main revenue stream of the business is from selling products, the first expense deducted from sales revenue is *cost of goods sold*, as in this example.

Deducting the cost of goods sold expense from sales revenue gives *gross margin* (also called *gross profit*). The number of other expense lines in an income statement varies from business to business. Before interest expense is deducted, the standard practice is to show *operating profit* (also called *operating earnings*), which is profit before interest expense.
- ✔ An amount that is deducted from another amount — such as the cost of goods sold expense — may be placed in parentheses to indicate that it is being subtracted from the amount above it. Alternatively, the accountant who prepares the financial statement may assume that readers know that expenses are deducted from sales revenue, so no parentheses are put around the number. You see expenses presented both ways in financial reports, but you hardly ever see a minus (negative) sign in front of expenses.
- ✔ Notice the use of dollar signs in the income statement example. In the illustration all amounts have a dollar sign prefix. However, financial reporting practices vary quite a bit on this matter. The first number in a column always has a dollar sign, but from here down it's a matter of personal preference.
- ✔ To indicate that a calculation is being done, a single underline is drawn under a number, as you see under the \$3,267,000 cost of goods sold expense number in the example. This means that the expense amount is being subtracted from sales revenue. The number below the underline, therefore, is a *calculated* amount.

Note that there are three calculated amounts in the example: \$1,951,000 gross margin; \$467,000 operating profit; and, \$281,000 net income.

- ✔ Dollar amounts in a column are always aligned to the right, as you see in the income statement example. Trying to read down a jagged column of numbers that are not right-aligned would be asking too much; the reader might develop vertigo.
- ✔ In the income statement example, dollar amounts are rounded to the nearest thousand for ease of reading, which is why you see all zeros in the last three places of each number. Really big businesses round off to the nearest million and drop the last six digits. The accountant could have dropped off the last three digits in the income statement, but probably wouldn't in most cases.



Many accountants don't like rounding off amounts reported in a financial statement, so you see every amount carried out to the last dollar, and sometimes even to the last penny. However, this gives a false sense of precision. Accounting for business transactions cannot be accurate down to the last dollar; this is nonsense. The late Kenneth Boulding, a well-known economist, once quipped that accountants would rather be precisely wrong than approximately correct. Ouch! That stings because there's a strong element of truth behind the comment.

- ✔ The final number in a column typically is double underlined, as you see for the \$281,000 bottom-line profit number in the income statement. This is about as carried away as accountants get in their work — a double underline. Instead of a double underline for a bottom-line number, it may appear in **bold**.

There's one more convention I need to mention: I give several Web addresses (URLs) in this book. Some need to break across two lines of text. If this is the case, rest assured that I haven't put in any extra characters (such as hyphens) to indicate the break. So, when using one of these Web addresses, just type in exactly what you see in this book, pretending as though the line break doesn't exist.

What You're Not To Read

While you're reading, I assume you're on the edge of your seat and can hardly wait to get to the next exciting sentence. Well, perhaps I get more pumped up about accounting than you. So, one question you may have is this: Do I really have to read every sentence in the book? To be honest, you can skip the paragraphs marked with the Technical Stuff icon. You can simply leapfrog over these sections without missing a beat. If you have time, you can return to these topics

later. Also, the sidebars in the chapters are interesting, but not essential for understanding the topics at hand. Sidebars are like when you say in a conversation, “By the way, did you know . . . ?”

There’s reading, and then there’s remembering what you read. You should read the examples I use throughout the book, but you don’t have to remember the numbers in each example. For instance, consider the income statement example in the previous section. You should understand that the bottom-line profit is the amount remaining after all expenses are deducted from sales revenue. But, of course, you don’t need to remember the specific amount of the bottom-line profit in the example.

Foolish Assumptions

Although I assume that you have a basic familiarity with the business world, I take nothing for granted regarding how much accounting you know. Even if you have some experience with accounting and financial statements, I think you’ll find this book useful.

I have written this book with a wide audience in mind. You should find yourself more than once in the following list of potential readers:

- ✓ **Accountants to be:** This book is a good first step for anyone considering a career in professional accounting.
- ✓ **Active investors:** Investors in marketable securities, real estate, and other ventures need to know how to read financial statements backward and forward.
- ✓ **Passive investors:** Many people let the pros manage their money by investing in mutual funds or using investment advisors to handle their money; even so, they need to understand the investment performance reports they get, which use plenty of accounting terms and measures.
- ✓ **People who want to take control of their personal finances:** Many aspects of managing your personal finances involve the accounting vocabulary and accounting-based calculation methods.
- ✓ **Business managers (at all levels):** Trying to manage a business without a good grip on financial statements can lead to disaster. How can you manage the financial performance of your business if you don’t even understand the financial statements of your business?
- ✓ **Anyone interested in following economic, business, and financial news:** Articles in *The Wall Street Journal* and other financial news sources are heavy with accounting terms and measures.

- ✔ **Administrators and managers of government and not-for-profit entities:** Although making profit is not the goal of these entities, the focus is still on the bottom line because the entity has to stay within its revenue limits and keep on a sound financial footing.
- ✔ **Politicians at local, state, and federal levels:** These men and women pass many laws having significant financial consequences, and the better they understand accounting, the better their votes should be (we hope).
- ✔ **Bookkeepers:** Strengthening their knowledge of accounting should improve their effectiveness and value to the organization.
- ✔ **Entrepreneurs:** As budding business managers, they need a solid grasp of accounting basics.
- ✔ **Business buyers and sellers:** Anyone thinking of buying or selling a business should know how to read its financial statements and how to “true up” these accounting reports that serve as the basis for setting a market value on the business.
- ✔ **Investment bankers, institutional lenders, and loan officers:** I don’t really have to tell these folks that they need to understand accounting; they already know.
- ✔ **Business and finance professionals:** This includes lawyers and financial advisors, of course, but even clergy counsel their flock on financial matters occasionally.

I could put others in the above list. But I think you get the idea that many different people need to understand the basics of accounting. Perhaps someone who leads an isolated contemplative life and renounces all earthly possessions does not need to know anything about accounting. But, then again, I don’t know.

How This Book Is Organized

This book is divided into parts, and each part is further divided into chapters. The following sections describe what you can find in each part.

Part I: Opening the Books on Accounting

In Chapters 1 and 2, I introduce the three primary business financial statements *gradually*, one step at a time. Rather than throwing you in the deep end of the pool, hoping that you learn to swim before drowning in too many details, I make sure you first learn to float and then move on to some basic

strokes. The information for financial statements comes from the bookkeeping system of the entity. The financial statements of an entity are no more reliable and accurate than the reliability and accuracy of its bookkeeping system — and the integrity of the company’s management, of course. So, in Chapter 3, I offer a brief overview of bookkeeping and accounting systems. You could jump over this chapter, if you must. But I recommend at least a quick read.

Part II: Figuring Out Financial Statements

In Part II, I complete the explanations of the three primary financial statements of businesses (see Chapters 4, 5, and 6). In Chapter 7, I explain that businesses are not in a straitjacket when it comes to deciding which accounting methods to use for recording their revenue and expenses. They can select from two or more equally acceptable methods for recording certain revenues and expenses. The choice of accounting methods affects the values recorded for assets and liabilities.

Part III: Accounting in Managing a Business

To start a business and begin operations, its founders must first decide on which legal structure to use. Chapter 8 explains the legal entities for carrying on business activities. Each has certain advantages and disadvantages, and each is treated differently under the income tax law.

Chapter 9 explains an extraordinarily important topic: designing an accounting report template that serves as a good profit model, one that focuses on the chief variables that drive profit and changes in profit. A hands-on profit model is essential for decision-making analysis. A manager depends on the profit model to determine the effects of changes in sales prices, sales volume, product costs, and the other fundamental factors that drive profit.

In Chapter 10, I discuss accounting-based planning and control techniques, through the lens of *budgeting*. Managers in manufacturing businesses should be wary of how product costs are determined, as Chapter 11 explains. The chapter also explains other economic and accounting cost concepts relevant to business managers.

Part IV: Preparing and Using Financial Reports

In Part IV, I first explain how a financial report is put together (see Chapter 12). Next I discuss how investors and lenders read financial statements (see Chapter 13). Business managers need more information than is included in an external financial report to investors and lenders. In Chapter 14, I survey the additional information that managers need.

I close this part of the book with a chapter that explains audits of financial statements by CPAs and the very serious problems of accounting and financial reporting fraud (see Chapter 15). If there were no Enrons in the world, things would be a lot simpler. I hate to say it, but the next Enron is just waiting to happen. Unfortunately, you can't necessarily depend on audits to discover accounting fraud.

Part V: The Part of Tens

In the *For Dummies* style, I close the book with a pair of chapters in “The Part of Tens.” I condense the main lessons from the book's chapters into two lists of ten vital points each. Chapter 16 reviews ten important ways business managers should use accounting information. Chapter 17 gives business investors handy tips for getting the most out of reading a financial report — tips on how to be efficient in reading a financial report and the key factors to focus on.

Glossary



The accounting terminology in financial statements is a mixed bag. Many terms are straightforward, but accountants also use esoteric terms that you don't see outside of financial statements. Sometimes it must seem like accountants are speaking a foreign language. I must admit that accountants use jargon more than they should. In some situations accountants resort to arcane terminology to be technically correct, much like lawyers use arcane terminology in filing lawsuits and drawing up contracts.

Where I use jargon in the book, I pause and clarify what the terms mean in plain English. Also, I present a helpful glossary at the end of the book that can assist you on your accounting safari. This glossary provides quick access to succinct definitions of key accounting and financial terms, with relevant commentary and an occasional editorial remark. This is better than your average glossary.

Icons Used in This Book



This icon points out especially important ideas and accounting concepts that are particularly deserving of your attention. The material marked by this icon describes concepts that are the undergirding and building blocks of accounting — concepts that you should be very clear about and that clarify your understanding of accounting principles in general.



I use this icon sparingly; it refers to very specialized accounting stuff that is heavy going, which only a CPA could get really excited about. However, you may find these topics important enough to return to when you have the time. Feel free to skip over these points the first time through and stay with the main discussion.



This icon calls your attention to useful advice on practical financial topics. It saves you the cost of buying a yellow highlighter pen.



This icon is like a caution sign that warns you about speed bumps and potholes on the accounting highway. Taking special note of this material can steer you around a financial road hazard and keep you from blowing a fiscal tire. In short — watch out!

Where to Go from Here

There's no law against you starting on page 1 and reading through to the last page. However, you may first want to scan the book's Contents at a Glance and see which chapters pique your interest.

Perhaps you're an investor who is very interested in learning more about financial statements and the key financial statement ratios for investors. You might start with Chapters 4, 5, and 6 which explain the three primary financial statements of businesses, and finish with Chapter 13 on reading a financial report. (And don't overlook Chapter 17.)

Perhaps you're a small business owner/manager with a basic understanding of your financial statements, but you need to improve how you use accounting information for making your key profit decisions, and for planning and controlling your cash flow. You might jump right into Chapters 9 and 10, which explain the analysis of profit behavior and budgeting cash flows.

The book is not like a five-course dinner in which you have to eat in the order the food is served to you. It's more like a buffet line from which you can pick and choose, and eat in whatever order you like.

Part I

Opening the Books on Accounting

The 5th Wave

By Rich Tennant



"So once I add the floating volume rate to my accumulated reserve assets and divide by the annualized ratio, I'll realize a profit. It still looks like a \$6 tip on an \$85 lunch."

In this part . . .

Accounting is essential in the worlds of business, investing, finance, and taxes. In this part, you find out why.

Accountants are the “information gatekeepers” in the economy. Without accounting, a business couldn’t function, wouldn’t know whether it’s making a profit, and would be ignorant of its financial situation. Accounting is equally vital in managing the business affairs of not-for-profit and governmental entities.

From its accounting records, a business prepares its financial statements, its tax returns, and the reports to its managers. In financial reports to investors and lenders, a business must obey authoritative accounting and financial reporting standards. If not, its financial reports would be misleading and possibly fraudulent, which could have dire consequences.

Bookkeeping — the record-keeping part of accounting — must be done well to ensure that the financial information of a business is timely, complete, accurate, and reliable — especially the numbers reported in its financial statements and tax returns. Wrong numbers in financial reports and tax returns can cause all sorts of trouble.

Chapter 1

Accounting: The Language of Business, Investing, Finance, and Taxes

In This Chapter

- ▶ Realizing how accounting is relevant to you
 - ▶ Grasping how all economic activity requires accounting
 - ▶ Watching an accounting department in action
 - ▶ Shaking hands with business financial statements
 - ▶ Mama, should you let your baby grow up to be an accountant?
-

Accounting is all about financial information — capturing it, recording it, configuring it, analyzing it, and reporting it to persons who use it. I don't say much about how accountants capture, record, and configure financial information in this book. But I talk a lot about how accountants communicate information in financial statements, and I explain the *valuation methods* accountants use — ranging from measuring profit and loss to putting values on assets and liabilities of businesses.

As you go through life, you come face to face with accounting information more than you would ever imagine. Regretfully, much of this information is not self-explanatory or intuitive, and it does not come with a user's manual. Accounting information is presented on the assumption that you have a basic familiarity with the vocabulary of accounting and the accounting methods used to generate the information. In short, most of the accounting information you encounter is not transparent. The main reason for studying accounting is to learn its vocabulary and valuation methods, so you can make more intelligent use of the information.

People who use accounting information should know the basic rules of play and how the financial score is kept, much like spectators at a football or baseball game. The purpose of this book is to make you a knowledgeable spectator of the accounting game.



Let me point out another reason you should know accounting basics — I call it the *defensive* reason. A lot of people out there in the cold, cruel financial world may take advantage of you, not necessarily by illegal means but by withholding key information and by diverting your attention from unfavorable aspects of certain financial decisions. These unscrupulous characters treat you as a lamb waiting to be fleeced. The best defense against such tactics is to know some accounting, which can help you ask the right questions and understand the financial points that con artists don't want you to know.

Accounting Is Not Just for Accountants

One main source of accounting information is in the form of *financial statements* that are packaged with other information in a *financial report*. Accountants keep the books and record the financial activities of an entity (such as a business). From these detailed records the accountant prepares financial statements that summarize the results of the activities.

Financial statements are sent to people who have a stake in the outcomes of the activities. If you own stock in General Electric, for example, or you have money in a mutual fund, you receive regular financial reports. If you invest your hard-earned money in a private business or a real estate venture, or you save money in a credit union, you receive regular financial reports. If you are a member of a nonprofit association or organization, you're entitled to receive regular financial reports.



In summary, one important reason for studying accounting is to make sense of the financial statements in the financial reports you get. I guarantee that Warren Buffett knows accounting and how to read financial statements. I sent him a copy of my *How To Read A Financial Report* (Wiley). In his reply, he said he planned to recommend it to his "accounting challenged" friends.

Affecting both insiders and outsiders

People who need to know accounting fall into two broad groups: *insiders* and *outsiders*. Business managers are insiders; they have the authority and responsibility to run a business. They need a good understanding of accounting terms and the methods used to measure profit and put values on assets and liabilities.

Accounting information is indispensable for planning and controlling the financial performance and condition of the business. Likewise, administrators of nonprofit and governmental entities need to understand the accounting terminology and measurement methods in their financial statements.



The rest of us are outsiders. We are not privy to the day-to-day details of a business or organization. We have to rely on financial reports from the entity to know what's going on. Therefore, we need to have a good grip on the financial statements included in the financial reports. For all practical purposes, financial reports are the only source of financial information we get directly from a business or other organization.

By the way, the employees of a business — even though they obviously have a stake in the success of the business — do not necessarily receive its financial reports. Only the investors in the business and its lenders are entitled to receive the financial reports. Of course, a business *could* provide this information to those of its employees who are not shareowners, but generally speaking most businesses do not. The financial reports of public businesses are in the public domain, so their employees can easily secure a copy. However, financial reports are not automatically mailed to all employees of a public business.

In our personal financial lives, a little accounting knowledge is a big help for understanding investing in general, how investment performance is measured, and many other important financial topics. With some basic accounting knowledge, you'll sound much more sophisticated when speaking with your banker or broker. I can't promise you that learning accounting will save you big bucks on your income taxes, but it can't hurt and will definitely help you understand what your tax preparer is talking about.

Keep in mind that this is *not* a book on bookkeeping and recordkeeping systems. I offer a brief explanation of procedures for capturing, processing, and storing accounting information in Chapter 3. Even experienced bookkeepers and accountants should find some nuggets in that chapter. However, this book is directed to *users* of accounting information. I focus on the end products of accounting, particularly financial statements, and not how information is accumulated. When buying a new car, you're interested in the finished product, not details of the manufacturing process that produced it.

Overcoming the stereotypes of accountants

I recently saw a cartoon in which the young son of clowns is standing in a circus tent and is dressed as a clown, but he is holding a business briefcase. He is telling his clown parents that he is running away to join a CPA firm. Why is this funny? Because it plays off the stereotype of a CPA (certified public accountant)

as a “bean counter” who wears a green eyeshade and has the personality of an undertaker (no offense to morticians). Maybe you’ve heard the joke that an accountant with a personality is one who looks at *your* shoes when he is talking to you, instead his own shoes.

Like most stereotypes, there’s an element of truth in the preconceived image of accountants. As a CPA and accounting professor for more than 40 years, I have met and known a large number of accountants. Most accountants are not as gregarious as used-car sales people (though some are). Accountants certainly are more detail-oriented than your average person. However, you don’t have to be good at mathematics to be a good accountant. Accountants use very little math (no calculus and only simple algebra). Accountants are very good at one thing: They want to see both sides of financial transactions: the give and take. Accountants know better than anyone that, as economists are fond of saying, there’s no such thing as a free lunch.

If you walked down a busy street in Chicago, New York, or Los Angeles, I doubt that you could pick out the accountants. I have no idea whether accountants have higher or lower divorce rates than others, whether they go to church more frequently, whether most are Republicans or Democrats, or if they generally sleep well at night. I do think that accountants are more honest in paying their income taxes than other people, although I have no proof of this.

Relating accounting to your personal financial life

I’m sure you know the value of learning personal finance and investing fundamentals. (I can recommend *Personal Finance For Dummies* and *Investing For Dummies* by Eric Tyson, MBA, both published by Wiley.) Well, a great deal of the information you use in making personal finance and investing decisions is *accounting information*. One knock I have on books in these areas is that they often don’t make clear that you need a basic understanding of accounting terminology and valuation methods in order to make good use of the financial information.

You have a stake in the financial performance of the business you work for, the government entities you pay taxes to, the churches and charitable organizations you donate money to, the retirement plan you participate in, the businesses you buy from, and the healthcare providers you depend on. The financial performance and viability of these entities has a direct bearing on your personal financial life and well-being.



We're all affected by the profit performance of businesses, even though we may not be fully aware of just how their profit performance affects our jobs, investments, and taxes. For example, as an employee your job security and your next raise depend on the business making a profit. If the business suffers a loss, you may be laid off or asked to take a reduction in pay or benefits. Business managers get paid to make profit happen. If the business fails to meet its profit objectives or suffers a loss, its managers may be replaced (or at least not get their bonuses). As an author, I hope my publisher continues to make profit so I can keep receiving my royalty checks.

Your investments in businesses, whether direct or through retirement accounts and mutual funds, suffer if the businesses don't turn a profit. I hope the stores I trade with make profit and continue in business. The federal government and many states depend on businesses making profit to collect income taxes from them.

Looking for Accounting in All the Right Places

Accounting extends into virtually every walk of life. You're doing accounting when you make entries in your checkbook and when you fill out your federal income tax return. When you sign a mortgage on your home, you should understand the accounting method the lender uses to calculate the interest amount charged on your loan each period. Individual investors need to understand accounting basics in order to figure their return on invested capital. And it goes without saying that every organization, profit-motivated or not, needs to know how it stands financially.

Here's a quick sweep to give you an idea of the range of accounting:

- ✓ Accounting for organizations and accounting for individuals
- ✓ Accounting for profit-motivated businesses and accounting for nonprofit organizations (such as hospitals, homeowners' associations, churches, credit unions, and colleges)
- ✓ Income tax accounting while you're living and estate tax accounting when you die
- ✓ Accounting for farmers who grow their products, accounting for miners who extract their products from the earth, accounting for producers who manufacture products, and accounting for retailers who sell products that others make

- ✓ Accounting for businesses and professional firms that sell services rather than products, such as the entertainment, transportation, and healthcare industries
- ✓ Past-historical-based accounting and future-forecast-oriented accounting (budgeting and financial planning)
- ✓ Accounting where periodic financial statements are legally mandated (public companies are the primary example) and accounting where such formal accounting reports are not legally required
- ✓ Accounting that adheres to historical cost mainly (businesses) and accounting that records changes in market value (mutual funds, for example)
- ✓ Accounting in the private sector of the economy and accounting in the public (government) sector
- ✓ Accounting for going-concern businesses that will be around for some time and accounting for businesses in bankruptcy that may not be around tomorrow

Accounting is necessary in a free-market, capitalist economic system. It's equally necessary in a centralized, government-controlled, socialist economic system. All economic activity requires information. The more developed the economic system, the more the system depends on information. Much of the information comes from the accounting systems used by the businesses, institutions, individuals, and other players in the economic system.

Some of the earliest records of history are the accounts of wealth and trading activity. The need for accounting information was a main incentive in the development of the numbering system we use today. The history of accounting is quite interesting (but beyond the scope of this book).

Taking a Peek into the Back Office

Every business and not-for-profit entity needs a reliable bookkeeping system (see Chapter 3). Keep in mind that *accounting* is a much broader term than *bookkeeping*. For one thing, accounting encompasses the problems in measuring the financial effects of economic activity. Furthermore, accounting includes the function of *financial reporting* of values and performance measures to those that need the information. Business managers and investors, and many other people, depend on financial reports for information about the performance and condition of the entity.

Bookkeeping refers to the process of accumulating, organizing, storing, and accessing the financial information base of an entity, which is needed for two basic purposes:

- ✓ Facilitating the day-to-day operations of the entity
- ✓ Preparing financial statements, tax returns, and internal reports to managers

Bookkeeping (also called *recordkeeping*) can be thought of as the financial information infrastructure of an entity. Of course the financial information base should be complete, accurate, and timely. Every recordkeeping system needs quality controls built into it, which are called *internal controls* or *internal accounting controls*.



Accountants design the internal controls for the bookkeeping system, which serve to minimize errors in recording the large number of activities that an entity engages in over the period. The internal controls that accountants design are also relied on to detect and deter theft, embezzlement, fraud, and dishonest behavior of all kinds. In accounting, internal controls are the ounce of prevention that is worth a pound of cure.

I explain internal controls in Chapter 3. Here, I want to stress the importance of the bookkeeping system in operating a business or any other entity. These back-office functions are essential for keeping operations running smoothly, efficiently, and without delays and errors. This is a tall order, to say the least.

Most people don't realize the importance of the accounting department in keeping a business operating without hitches and delays. That's probably because accountants oversee many of the back-office functions in a business — as opposed to sales, for example, which is front-line activity, out in the open and in the line of fire. Go into any retail store, and you're in the thick of sales activities. But have you ever seen a company's accounting department in action?

Folks may not think much about these back-office activities, but they would sure notice if those activities didn't get done. On payday, a business had better not tell its employees, "Sorry, but the accounting department is running a little late this month; you'll get your checks later." And when a customer insists on up-to-date information about how much he or she owes to the business, the accounting department can't very well say, "Oh, don't worry, just wait a week or so and we'll get the information to you then."

Typically, the accounting department is responsible for the following:

✔ **Payroll:** The total wages and salaries earned by every employee every pay period, which are called *gross wages* or *gross earnings*, have to be calculated. Based on detailed private information in personnel files and earnings-to-date information, the correct amounts of income tax, social security tax, and several other deductions from gross wages have to be determined.

Stubs, which report various information to employees each pay period, have to be attached to payroll checks. The total amounts of withheld income tax and social security taxes, plus the employment taxes imposed on the employer, have to be paid to federal and state government agencies on time. Retirement, vacation, sick pay, and other benefits earned by the employees have to be updated every pay period.

In short, payroll is a complex and critical function that the accounting department performs. Many businesses outsource payroll functions to companies that specialize in this area.

✔ **Cash collections:** All cash received from sales and from all other sources has to be carefully identified and recorded, not only in the cash account but also in the appropriate account for the source of the cash received. The accounting department makes sure that the cash is deposited in the appropriate checking accounts of the business and that an adequate amount of coin and currency is kept on hand for making change for customers. Accountants balance the checkbook of the business and control who has access to incoming cash receipts. (In larger organizations, the *treasurer* may be responsible for some of these cash flow and cash-handling functions.)

✔ **Cash payments (disbursements):** In addition to payroll checks, a business writes many other checks during the course of a year — to pay for a wide variety of purchases, to pay property taxes, to pay on loans, and to distribute some of its profit to the owners of the business, for example. The accounting department prepares all these checks for the signatures of the business officers who are authorized to sign checks. The accounting department keeps all the supporting business documents and files to know when the checks should be paid, makes sure that the amount to be paid is correct, and forwards the checks for signature.

✔ **Procurement and inventory:** Accounting departments usually are responsible for keeping track of all purchase orders that have been placed for *inventory* (products to be sold by the business) and all other assets and services that the business buys — from postage stamps to forklifts. A typical business makes many purchases during the course of a year, many of them on credit, which means that the items bought are received today but paid for later. So this area of responsibility includes keeping files on all liabilities that arise from purchases on credit so that cash payments can be processed on time. The accounting department

also keeps detailed records on all products held for sale by the business and, when the products are sold, records the cost of the goods sold.

- ✓ **Property accounting:** A typical business owns many different substantial long-term assets called *property, plant, and equipment* — including office furniture and equipment, retail display cabinets, computers, machinery and tools, vehicles (autos and trucks), buildings, and land. Except for relatively small-cost items, such as screwdrivers and pencil sharpeners, a business maintains detailed records of its property, both for controlling the use of the assets and for determining personal property and real estate taxes. The accounting department keeps these property records.

The accounting department may be assigned other functions as well, but this list gives you a pretty clear idea of the back-office functions that the accounting department performs. Quite literally, a business could not operate if the accounting department did not do these functions efficiently and on time. And to repeat one point: To do these back-office functions well the accounting department must design a good bookkeeping system and make sure that it is accurate, complete, and timely.

Focusing on Transactions



Accounting focuses on *transactions*. A good bookkeeping system captures and records every transaction that takes place without missing a beat. Transactions are economic exchanges between a business or other entity and the parties with which the entity interacts and makes deals. Transactions are the lifeblood of every business, the heartbeat of activity that keeps it going. Understanding accounting, to a large extent, means understanding how accountants record the financial effects of transactions. The immediate and future financial effects of some transactions can be difficult to determine.

A business carries on economic exchanges with six basic types of persons or entities:

- ✓ Its **customers**, who buy the products and services that the business sells.
- ✓ Its **employees**, who provide services to the business and are paid wages and salaries and provided with benefits, such as a retirement plan, medical insurance, workers' compensation, and unemployment insurance.
- ✓ Its **suppliers** and **vendors**, who sell a wide range of things to the business, such as legal advice, products for resale, electricity and gas, telephone service, computers, vehicles, tools and equipment, furniture, and even audits.

- ✔ Its **debt sources of capital** who loan money to the business, charge interest on the amount loaned, and are due to be repaid at definite dates in the future.
- ✔ Its **equity sources of capital**, the individuals and financial institutions that invest money in the business and expect the business to earn profit on the capital they invest.
- ✔ The **government**, or the federal, state, and local agencies that collect income taxes, sales taxes, payroll taxes, and property taxes from the business.

Figure 1-1 illustrates the interactions between the business and the other parties in its economic exchanges.

Even a relatively small business generates a surprisingly large number of transactions, and all transactions have to be recorded. Certain other events that have a financial impact on the business have to be recorded as well. These are called *events* because they're not based on give-and-take bargaining — unlike the something-given-for-something-received nature of economic exchanges. Events such as the following have an economic impact on a business and are recorded:

- ✔ A business may lose a lawsuit and be ordered to pay damages. The liability to pay the damages is recorded.
- ✔ A business may suffer a flood loss that is uninsured. The waterlogged assets may have to be written down, meaning that the recorded values of the assets are reduced to zero if they no longer have any value to the business. For example, products that were being held for sale to customers (until they floated down the river) must be removed from the inventory asset account.
- ✔ A business may decide to abandon a major product line and downsize its workforce, requiring that severance compensation be paid to the laid-off employees.

As I explain in more detail in Chapter 3, at the end of the year the accountant makes a special survey to make sure that all events and developments during the year that should be recorded have been recorded, so that the financial statements and tax returns for the year are complete and correct.

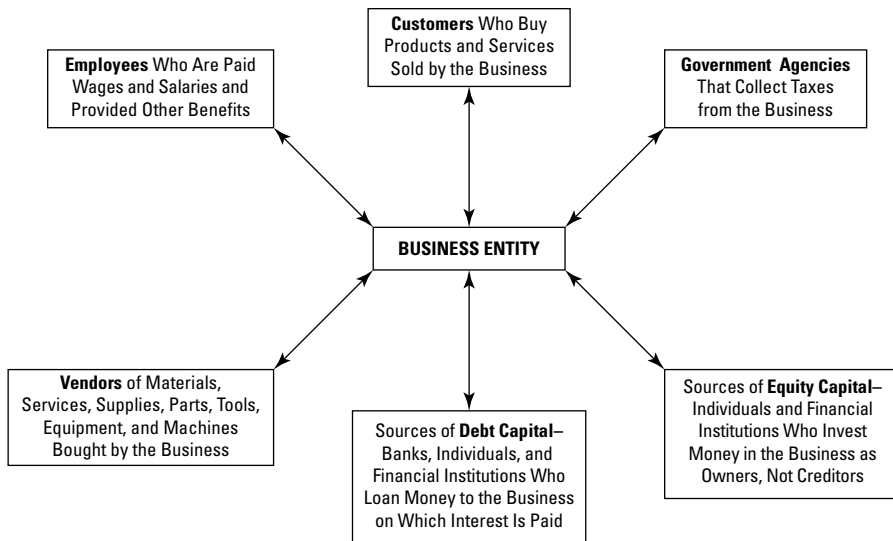


Figure 1-1: Transactions between a business and the parties it deals with.

Taking the Pulse of a Business: Financial Statements

I devote a good deal of space in this book to discussing financial statements. In Chapter 2, I explain the fundamental information components of financial statements, and then Part II gets into the nitty-gritty details. Here, I simply want to introduce you to the three primary kinds of financial statements so you know from the get-go what they are and why they're so crucial.



Financial statements are prepared at the end of each accounting period. A period may be one month, one quarter (three calendar months), or one year. Financial statements report *summary amounts*, or *totals*. Accountants seldom prepare a complete listing of the details of all the activities that took place during a period, or the individual items making up a total amount. Business managers occasionally need to search through a detailed list of all the specific transactions that make up a total amount. When they want to drill down into the details, they ask the accountant for the more detailed information. But this sort of detailed listing is *not* a financial statement.

Outside investors in a business see only summary-level financial statements. For example, investors see the total amount of sales revenue for the period but not how much was sold to each and every customer.

Meeting the balance sheet and the accounting equation

One type of accounting report is a “Where do we stand at the end of the period?” type of report. This is called the *statement of financial condition* or, more commonly, the *balance sheet*. The date of preparation is given in the header, or title, above this financial statement.

A balance sheet shows two sides of the business, which I suppose you could think of as the financial yin and yang of the business:

- ✓ **Assets:** On one side of the balance sheet the *assets* of the business are listed, which are the economic resources owned and being used in the business. The asset *values* reported in the balance sheet are the amounts recorded when the assets were originally acquired — although I should mention that an asset is written down below its historical cost when the asset has suffered a loss in value. (And to complicate matters, some assets are written up to their current fair values.) Some assets have been on the books only a few weeks or a few months, so their reported historical values are current. The values for other assets, on the other hand, are their costs when they were acquired many years ago.
- ✓ **Sources of assets:** On the other side of the balance sheet is a breakdown of where the assets came from, or their *sources*. Assets are not like manna from the heavens. Assets come from two basically different sources: *creditors* and *owners*. First, the creditors: Businesses borrow money in the form of interest-bearing loans that have to be paid back at a later date, and they buy things on credit that are paid for later. So, part of total assets can be traced to creditors, which are the *liabilities* of a business. Second are the owners: Every business needs to have owners invest capital (usually money) in the business. Also, businesses retain part or all of the annual profits they make, and profit increases the total assets of the business. The total of invested capital and retained profit is called *owners' equity*.

Suppose a business reports \$2.5 million in total assets (without going into the details of which particular assets the business holds). I know that the total of its liabilities, plus the capital invested by its owners, plus its retained profit, adds up to \$2.5 million. Otherwise its books would be out of balance, which means there are bookkeeping errors.

Continuing with this example, suppose that the total amount of the liabilities of the business is \$1.0 million. This means that the total amount of *owners' equity* in the business is \$1.5 million, which equals total assets less total liabilities. Without more information we don't know how much of total owners' equity is traceable to capital invested by the owners in the business and how much is the result of profit retained in the business. But we do know that the total of these two sources of owners' equity is \$1.5 million.

A pop quiz

Here's a teaser for you. If a business's total assets equal \$2.5 million and its total liabilities equal \$1.0 million, we know that its total owners' equity is \$1.5 million. Question: Could the owners have invested more than \$1.5 million in the business? Answer: Yes. One possibility is that the owners invested \$2.5 million but the business has so far accumulated \$1.0 million of losses instead of making profit. The accumulated loss offsets

the amount invested, so the owners' equity is only \$1.5 million net of its cumulative loss of \$1.0 million. The \$1.0 million of cumulative loss is money down the rat hole. Owners bear the risk that the business may be unable to make a profit. A loss falls on the owners and, accordingly, causes a decrease in the owners' equity amount reported in the balance sheet.

The financial condition of the business in this example is summarized in the following *accounting equation* (in millions):

$$\$2.5 \text{ assets} = \$1.0 \text{ liabilities} + \$1.5 \text{ owners' equity}$$

Looking at the accounting equation, you can see why the statement of financial condition is called the *balance sheet*; the equal sign means the two sides balance.



Double-entry bookkeeping is based on the accounting equation — the fact that the total of assets on the one side is counterbalanced by the total of liabilities, invested capital, and retained profit on the other side. I discuss double-entry bookkeeping in Chapter 3. Basically, double-entry bookkeeping simply means that both sides of transactions are recorded. For example, if one asset goes up, another asset goes down — or, alternatively, either a liability or owners' equity goes up. This is the economic nature of transactions. Double-entry means *two-sided*, not that the transactions are recorded twice.

Reporting profit and loss, and cash flows



Other financial statements are different from the balance sheet in one important respect: They summarize the *flows* of activities over the period. (An example of a *flow number* is the total attendance at Colorado Rockies baseball games over its entire 82 home game regular season; the cumulative count of spectators passing through the turnstiles over the season is the flow.) Accountants prepare two types of financial flow reports for a business:

- The **income statement** summarizes the inflow from sales revenue and income, which is offset by the outflows for the expense during the period. Deducting expenses from revenue and income leads down to the well-known *bottom line*, which is the final net profit or loss for the period and is called *net income* or *net loss* (or some variation of these terms).

Alternative titles for this financial statement are the *statement of operations* and the *statement of earnings*. Inside a business, but not in its external financial reports, the income statement is commonly called the *profit and loss statement*, or *P&L* report.

- ✓ The **statement of cash flows** summarizes the business's cash inflows and outflows during the period. The accounting profession has adopted a three-way classification of cash flows for external financial reporting: cash flows from making sales and incurring expenses; cash flows from investing in assets and selling assets; and cash flows from raising capital from debt and equity sources, returning capital to these sources, and making distributions from profit to owners.

Respecting the importance of this trio

I explain more about the three primary financial statements (balance sheet, income statement, and statement of cash flows) in Chapter 2. They constitute the hard core of a financial report to those persons outside a business who need to stay informed about the business's financial affairs. These individuals have invested capital in the business, or the business owes them money; therefore, they have a financial interest in how well the business is doing.

The managers of a business, to keep informed about what's going on and the financial position of the business, also use these three key financial statements. They are absolutely essential in helping managers control the performance of a business, identify problems as they come up, and plan the future course of a business. Managers also need other information that is not reported in the three basic financial statements. (In Part III of this book, I explain these additional reports.)

The three primary financial statements constitute a business's financial center of gravity. The president and chief executive officer of a business (plus other top-level officers) are responsible for seeing that the financial statements are prepared according to applicable financial reporting standards and according to established accounting principles and methods.



If a business's financial statements are later discovered to be seriously in error or deliberately misleading, the business and its top executives can be sued for damages suffered by lenders and investors who relied on the financial statements. For this reason, business managers should understand their responsibility for the financial statements and the accounting methods used to prepare the statements. In a court of law, they can't plead ignorance.

I have met more than one business manager who doesn't have a clue about his or her financial statements. This situation is a little scary; a manager who

doesn't understand financial statements is like an airplane pilot who doesn't understand the instrument readouts in the cockpit. Such a manager *could* run the business and "land the plane safely," but knowing how to read the vital signs along the way is much more prudent.

Business managers at all levels need to understand financial statements and the accounting methods used to prepare them. Also, lenders to a business, investors in a business, business lawyers, government regulators of business, entrepreneurs, anyone thinking of becoming an entrepreneur and starting a business, and, yes, even economists should know the basics of financial statement accounting. I've noticed that even experienced business journalists, who ought to know better, sometimes refer to the balance sheet when they're talking about profit performance. The bottom line is found in the income statement, not the balance sheet!

Considering Accounting Careers

In our highly developed economy, many people make their living as accountants — and here I'm using the term *accountant* in the broadest possible sense. If you look in the *Statistical Abstract of the United States* you'll see that upwards of 2 million people make their living as bookkeepers, accountants, and auditors. They work for businesses, government agencies, nonprofit organizations, and other organizations and associations.

Because accountants work with numbers and details, you hear references to accountants as bean counters, digit heads, number nerds, and other names I don't dare mention here. Accountants take these snide references in stride and with good humor. Actually, accountants rank among the most respected professionals in many polls.

Certified public accountant (CPA)

In the accounting profession, the mark of distinction is to be a *CPA*, which stands for *certified public accountant*. The term *public* means that the person has had some practical experience working for a CPA firm; it does not indicate whether that person is presently in public practice (as an individual CPA or as an employee or partner in a CPA firm that offers services to the public at large) rather than working for one organization. For example, I have a CPA certificate in Colorado, but I'm on inactive status because I have retired and do not offer my services to the public.

To become a CPA, you go to college, graduate with an accounting major in a five-year program (in most states), and pass the national, computer-based CPA exam. You also must satisfy professional employment experience; this requirement varies from state to state but generally is one or two years. After satisfying the education, exam, and experience requirements, you get a CPA certificate to hang on your wall. More important, you get a permit from your state to practice as a CPA and offer your services to the public. States require continuing education hours to maintain an active CPA permit.

The controller: The chief accountant in an organization

The top-level accounting officer in a business organization is usually called the *controller*. The controller designs the entire accounting system of the business and keeps it up-to-date with changes in the tax laws and changes in the accounting rules that govern reporting financial statements to outside lenders and owners. Controllers are responsible for hiring, training, evaluating, promoting, and sometimes firing the persons who hold the various bookkeeping and accounting positions in an organization — which range from payroll functions to the several different types of tax returns that have to be filed on time with different government agencies.

The controller is the lead person in the financial planning and budgeting process of the business organization. Furthermore, the controller designs the accounting reports that all the managers in the organization receive — from the sales and marketing managers to the purchasing and procurement managers. These internal reports should be designed to fit the authority and responsibility of each manager; they should provide information for managers' decision-making analysis needs and the information they need to exercise effective control. The controller also designs and monitors the accounting reports that go to the business's top-level vice presidents, the president, the chief executive officer, and the board of directors. All the tough accounting questions and problems get referred to the controller.

Smaller businesses may employ only one accountant. In many cases a small company's full-time bookkeeper or office manager carries out many of the duties that would be done by the controller in a larger organization. Smaller businesses often call in a CPA for advice and help. The CPA may function more or less as a part-time controller for a small business, preparing its annual income tax returns and helping to prepare the business's external financial reports.

State incorporation laws typically require that someone in the business be designated the *treasurer*, who has fiduciary responsibilities. Also, these laws usually require that someone be designated the *secretary*. The organizational charts of larger businesses usually put their controller under their *vice president for finance*, or *chief financial officer (CFO)*. The accounting functions in a business are integrated with and work in close coordination with its financial, treasury, and secretary functions.

A springboard to other careers

Many CPAs move on to other careers. A recent article in the *Journal of Accountancy* featured former CPAs who moved on to other interesting careers. One became a Harley-Davidson dealer, another a high school teacher, another an auto racing track owner, another a physical fitness coaching business owner, and one even became a stand-up comedian whose stage name is “Debitman.” Serving time as a CPA is a good springboard to many careers, even being the author of *Accounting For Dummies*.

By the way, if you’re interested in accounting, you may think about getting a Ph.D. in accounting and becoming an accounting professor. After a few years in public accounting, I went back to school, got my Ph.D., and spent the rest of my career in that capacity. These days, the starting salaries for new assistant professors of accounting are well into six digits!

Chapter 2

Financial Statements and Accounting Standards

In This Chapter

- ▶ Fleshing out the three key financial statements
 - ▶ Noting the difference between profit and cash flow
 - ▶ Finding answers in the financial statements
 - ▶ Knowing who sets accounting standards
-

If you read Chapter 1, you got a very brief introduction to the three primary business financial statements: the *income statement*, the *balance sheet*, and the *statement of cash flows*. In this chapter, you get some juicy details. Then, in Part II, you really get the goods. Think back to when you learned to ride a bicycle. Chapter 1 is like getting on the bike and learning to keep your balance. In this chapter, you put on your training wheels and start riding. Then, when you're ready, the chapters in Part II explain all 21 gears of the financial statements bicycle, and then some.

The financial effects of making profit are not as simple as you may think. Profit-making activities cause changes in the financial condition of a business — but maybe not the changes you suppose. Many people assume that making a profit increases a business's cash balance by the same amount and that's the end of it. That's simply not true. Making profit leaves many footprints on the financial condition of a business.

Also in this chapter, I briefly discuss financial accounting and reporting standards. Businesses comply with established rules for recording revenue, income, expenses, and losses; for putting values on assets and liabilities; and for presenting and disclosing information in their financial reports. The basic idea is that all businesses should follow uniform methods for measuring and reporting profit performance, and reporting financial condition and cash flows. Consistency in accounting from business to business is the goal. I explain who makes the rules, and I discuss two important recent developments: the internationalization of accounting standards, and the increasing divide between financial reporting for public and private companies.

Introducing the Information Content of Financial Statements

This chapter focuses on the basic *information components* of each financial statement reported by a business. In this first step, I do not address the classification, or grouping, of these information packets within each financial statement. The first step is to get a good idea of the information content reported in financial statements. The second step is to become familiar with the “architecture,” rules of classification, and other features of financial statements, which I explain in Part II of the book.

Setting up the business example

To better illustrate the three primary financial statements, I need a realistic business example. The information content of its financial statements depends on the line of business a company is in — in other words, which types of products and services it sells. The financial statements of a movie theater chain are different from those of a bank, which are different from those of an airline, which are different from an automobile manufacturer. Here, I use a fairly common type of business example.

Here are the particulars of the business I use for the example:

- ✔ It sells products, mainly to other businesses.
- ✔ It sells on credit, and its customers take a month or so before they pay.
- ✔ It holds a fairly large stock of products awaiting sale (its *inventory*).
- ✔ It owns a wide variety of long-term operating assets that have useful lives from 3 to 30 years or longer (a building, machines, tools, computers, office furniture, and so on.).
- ✔ It’s been in business for many years and has made a steady profit over the years.
- ✔ It borrows money for part of the total capital it needs.
- ✔ It’s organized as a corporation and pays federal and state income taxes on its annual taxable income.
- ✔ It has never been in bankruptcy and is not facing any immediate financial difficulties.

The company's annual income statement for the year just ended, its balance sheet at the end of the year, and its statement of cash flows for the year are presented in Figures 2-1, 2-2, and 2-3 respectively. Dollar amounts in the three financials are rounded off to the nearest thousand, which is not uncommon. Dollar amounts can be reported out to the last dollar, or even the last penny for that matter. But too many digits in a dollar amount are hard to absorb, so many businesses round off the dollar amounts in their financial statements.



These financial statements are stepping-stone illustrations that are concerned mainly with the basic information components in each statement. Full-blown, classified financial statements are presented in Part II of the book. (I know you can't wait to get to those chapters.) The financial statements in this chapter do not include all the information you see in actual financial statements. Also, I use descriptive labels for each item rather than the terse and technical titles you see in actual financial statements. And I strip out subtotals that you see in actual financial statements because they are not necessary at this point. So, with all these conventions in mind, let's get going.

Oops, I forgot to mention a couple of things about financial statements. I should give you quick heads-up on these points. Financial statements are rather stiff and formal. No slang or street language is allowed, and I've never seen a swear word in one. Financial statements would get a G in the movies rating system. Seldom do you see any graphics or artwork in a financial statement itself, although you do see a fair amount of photos and graphics elsewhere in the financial reports of public companies. And, there's virtually no humor in financial reports. So, don't look for cartoons like the ones by Rich Tennant in this book. (However, I might mention that in his annual letter to the stockholders of Berkshire Hathaway, Warren Buffett includes some wonderful humor to make his points.)

The income statement

The *income statement* is the all-important financial statement that summarizes the profit-making activities of a business over a period of time. Figure 2-1 shows the basic information content for an *external* income statement: one released outside the business to its owners and lenders. The income statement in Figure 2-1 shows six lines of information: sales revenue on the top line, four types of expenses that are deducted from sales revenue, and finally bottom-line net income. Virtually all income statements disclose at least the four expenses shown in Figure 2-1. The first two expenses (cost of goods sold and selling, general, and administrative expenses) take a big bite out of sales revenue. The other two expenses (interest and income tax) are relatively small as a percent of annual sales revenue but important enough in their own right to be reported separately.

		Company's Name Income Statement for Most Recent Year
		(Dollar amounts in thousands)
Figure 2-1: Basic information components of the income statement.	Sales revenue	\$10,400
	Cost of goods sold expense	\$6,240
	Selling, general, and administrative expenses	\$3,235
	Interest expense	\$125
	Income tax expense	<u>\$280</u>
	Net income	<u><u>\$520</u></u>



Instead of one amount for all selling, general, and administrative expenses, a business may separate out certain expenses from this broad category. For example, a business could disclose separate expenses for advertising and sales promotion, depreciation, salaries and wages, research and development, and delivery and shipping — though reporting these expenses is not common. Businesses do not disclose the compensation of top management in their external financial reports (although this information can be found in the proxy statements of public companies that are filed with the Securities and Exchange Commission).

Inside most businesses an income statement is called a *P&L (profit and loss) report*. These internal profit performance reports to the managers of a business include a good deal more detailed information about expenses, and about sales revenue also. Reporting just four expenses to managers (as shown in Figure 2-1) would not do. Chapter 9 explains P&L reports to managers.

Sales revenue is from the sales of products and services to customers. *Income* refers to amounts earned by a business from sources other than sales; for example, a real estate rental business receives rental income from its tenants. (In the example, the business has only sales revenue.) As I mention above, businesses report the expenses shown in Figure 2-1 — cost of goods sold expense, selling and general expenses, interest expense, and income tax expense. Further breakdown of expenses is at the discretion of the business.

Net income, being the bottom line of the income statement after deducting all expenses from sales revenue (and income, if any), is called, not surprisingly, the *bottom line*. It is also called *net earnings*. A few companies call it *profit* or *net profit*, but such terminology is not common.

The income statement gets the most attention from business managers, lenders, and investors (not that they ignore the other two financial statements). The very abbreviated versions of income statements that you see in the financial press, such as in *The Wall Street Journal*, report the top line (sales revenue and income) and the bottom line (net income) and not much more. Refer to Chapter 4 for much more information on income statements.

The balance sheet

Figure 2-2 shows the building blocks (basic information components) of a typical balance sheet. One reason the balance sheet is called by this name is that its two sides balance, or are equal in total amounts. In the example, the \$5.2 million total of assets equals the \$5.2 million total of liabilities and owners' equity. The balance or equality of total assets on the one hand and the sum of liabilities plus owners' equity on the other hand is expressed in the *accounting equation*, which I discuss in Chapter 1.

Generally speaking, five or more assets are reported in a typical balance sheet, starting with cash, and then receivables, and then cost of products held for sale, and so on down the line. Generally five or more liabilities are disclosed, starting with trade credit liabilities (from buying on credit), and then unpaid expenses, and then proceeding through the interest-bearing debts of the business. Two or more owners' equity accounts are generally reported. In summary, you'll find 12 or more lines of information in most balance sheets. Each of these information packets is called an *account* — so, a balance sheet has a composite of asset accounts, liability accounts, and owners' equity accounts.

Company's Name
Balance Sheet
at End of Most Recent Year
(Dollar amounts in thousands)

Assets	
Cash	\$1,000
Receivables from sales made on credit	\$800
Inventory of unsold products, at cost	\$1,560
Long-term operating assets, at cost less cumulative amount charged off to depreciation expense	\$1,840
Total assets	\$5,200
Liabilities and Owners' Equity	
Non-interest-bearing liabilities from purchases on credit and for unpaid expenses	\$650
Interest-bearing debt	\$2,080
Owners' equity capital invested in business plus profit earned and retained in business	\$2,470
Total liabilities and owners' equity	\$5,200

Figure 2-2:
Basic
information
components
of the
balance
sheet.

Most businesses need a variety of assets. You have *cash*, which every business needs, of course. Businesses that sell products carry an *inventory* of products awaiting sale to customers. Businesses need long-term resources that are generally called *property, plant, and equipment*; this group includes buildings, vehicles, tools, machines, and other resources needed in their operations. All these, and more, go under the collective name “assets.”

As you’d suspect, the particular assets reported in the balance sheet depend on which assets the business owns. I include just four basic assets in Figure 2-2. These are the hardcore assets that a business selling products on credit would have. It’s possible that such a business could lease virtually all of its long-term operating assets instead of owning them, in which case the business would report no such assets. In this example, the business owns these so-called *fixed assets*. They are *fixed* because they are held for use in the operations of the business and are not for sale, and their usefulness lasts several years or longer.

So, where does a business get the money to buy its assets? Most businesses borrow money on the basis of interest-bearing notes or other credit instruments for part of the total capital they need for their assets. Also, businesses buy many things on credit and at the balance sheet date owe money to their suppliers, which will be paid in the future. These operating liabilities are never grouped with interest-bearing debt in the balance sheet. The accountant would be tied to the stake for doing such a thing. Note that liabilities are not intermingled among assets — this is a definite no-no in financial reporting. You cannot subtract certain liabilities from certain assets and only report the net balance. You would be given 20 lashes for doing so.

Could a business’s total liabilities be greater than its total assets? Well, not likely — unless the business has been losing money hand over fist. In the vast majority of cases a business has more total assets than total liabilities. Why? For two reasons:

- ✓ Its owners have invested money in the business, which is not a liability of the business.
- ✓ The business has earned profit over the years, and some (or all) of the profit has been retained in the business. Making profit increases assets; if not all the profit is distributed to owners, the company’s assets rise by the amount of profit retained.



In the example (refer to Figure 2-2), owners’ equity is about \$2.5 million, or \$2.47 million to be more exact. Sometimes this amount is referred to as *net worth*, because it equals total assets minus total liabilities. However, net worth is not a good term because it implies that the business is worth the

amount recorded in its owners' equity accounts. The market value of a business, when it needs to be known, depends on many factors. The amount of owners' equity reported in a balance sheet, which is called its *book value*, is not irrelevant in setting a market value on the business — but it is usually not the dominant factor. The amount of owners' equity in a balance sheet is based on the history of capital invested in the business by its owners and the history of its profit performance and distributions from profit.



A balance sheet could be whipped up anytime you want, say at the end of every day. In fact, some businesses (such as banks and other financial institutions) need daily balance sheets, but most businesses do not prepare balance sheets that often. Typically, preparing a balance sheet at the end of each month is adequate for general management purposes — although a manager may need to take a look at the business's balance sheet in the middle of the month. In external financial reports (those released outside the business to its lenders and investors), a balance sheet is required at the close of business on the last day of the income statement period. If its annual or quarterly income statement ends, say, September 30; then the business reports its balance sheet at the close of business on September 30.

The balance sheet could more properly be called the *statement of assets, liabilities, and owners' equity*. Its more formal name is the *statement of financial condition*. Just a reminder: The profit for the most recent period is found in the income statement; periodic profit is not reported in the balance sheet. The profit reported in the income statement is before any distributions from profit to owners. The cumulative amount of profit over the years that has not been distributed to its owners is reported in the owners' equity section of the company's balance sheet.

By the way, notice that the balance sheet in Figure 2-2 is presented in a top and bottom format, instead of a left and right side format. Either the vertical or horizontal mode of display is acceptable. You see both the portrait and the landscape layouts in financial reports.

The statement of cash flows

To survive and thrive, business managers confront three financial imperatives:

- ✓ Make an adequate profit
- ✓ Keep financial condition out of trouble and in good shape
- ✓ Control cash flows

The income statement reports whether the business made a profit. The balance sheet reports the financial condition of the business. The third imperative is reported on in the *statement of cash flows*, which presents a summary of the business's sources and uses of cash during the income statement period.

Smart business managers hardly get the word *net income* (or profit) out of their mouths before mentioning *cash flow*. Successful business managers tell you that they have to manage both profit *and* cash flow; you can't do one and ignore the other. Business is a two-headed dragon in this respect. Ignoring cash flow can pull the rug out from under a successful profit formula. Still, some managers are preoccupied with making profit and overlook cash flow.

For external financial reporting, the cash flows of a business are divided into three categories, which are shown in Figure 2-3.

In the example, the company earned \$520,000 profit during the year (see Figure 2-1). One result of its profit-making activities was to increase its cash \$400,000, which you see in part (1) of the statement of cash flows (see Figure 2-3). This still leaves \$120,000 of profit to explain, which I get to in the next section. The actual cash inflows from revenues and outflows for expenses run on a different timetable than when the sales revenue and expenses are recorded for determining profit. It's like two different trains going to the same destination — the second train (the cash flow train) runs on a different schedule than the first train (the recording of sales revenue and expenses in the accounts of the business). In the next section, I give a scenario that accounts for the \$120,000 difference between cash flow and profit. I give a more comprehensive explanation of the differences between cash flows and sales revenue and expenses in Chapter 6.

The second part of the statement of cash flows sums up the long-term investments made by the business during the year, such as constructing a new production plant or replacing machinery and equipment. If the business sold any of its long-term assets, it reports the cash inflows from these divestments in this section of the statement of cash flows. The cash flows of other investment activities (if any) are reported in this part of the statement as well. As you can see in part (2) of the statement of cash flows (see Figure 2-3), the business invested \$450,000 in new long-term operating assets (trucks, equipment, tools, and computers).

The third part of the statement sums up the dealings between the business and its sources of capital during the period — borrowing money from lenders and raising new capital from its owners. Cash outflows to pay debt are reported in this section, as well as cash distributions from profit paid to the owners of the business. As you can see in part (3) of the statement of cash

flows (see Figure 2-3), the result of these transactions was to increase cash \$200,000. By the way, in this example the business did not make cash distributions from profit to its owners. It could have, but it didn't — which is an important point that I discuss later in the chapter (see the section "Why no cash distribution from profit?").



As you see in Figure 2-3, the net result of the three types of cash activities was a \$150,000 increase during the year. The increase is added to the cash balance at the start of the year to get the cash balance at the end of the year, which is \$1 million. I should make one point clear here: The \$150,000 increase in cash during the year (in this example) is never referred to as a cash flow *bottom line*, or any such thing. The term "bottom line" is strictly reserved for the last line of the income statement, which reports net income — the final profit after all expenses are deducted.

I could tell you that the statement of cash flows is relatively straightforward and easy to understand, but that would be a lie. The statements of cash flows reported by most businesses are frustratingly difficult to read. (More about this issue in Chapter 6.) Figure 2-3 presents the statement of cash flows for the business example as simply as I can possibly make it. Actual cash flow statements are much more complicated than the brief introduction to this financial statement that you see in Figure 2-3.

Company's Name
Statement of Cash Flows
for Most Recent Year
(Dollar amounts in thousands)

	(1) Cash effect during period from operating activities (collecting cash from sales and paying cash for expenses)	\$400
	(2) Cash effect during period from making investments in long-term operating assets	(\$450)
	(3) Cash effect during period from dealings with lenders and owners	\$200
	Cash increase during period	\$150
	Cash at start of year	\$850
	Cash at end of year	\$1,000

Figure 2-3:
Basic information components in the statement of cash flows.



Imagine you have a highlighter pen in your hand, and the three basic financial statements of a business are in front of you. What are the most important numbers to mark? Financial statements do *not* have any numbers highlighted; they do not come with headlines like newspapers. You have to find your own headlines. *Bottom-line profit* (net income) in the income statement is one number you would mark for sure. Another key number is *cash flow from operating activities* in the statement of cash flows.

How Profit and Cash Flow from Profit Differ

The income statement in Figure 2-1 reports that the business in our example earned \$520,000 net income for the year. However, the statement of cash flows in Figure 2-3 reports that its profit-making, or operating, activities increased cash only \$400,000 during the year. This gap between profit and cash flow from operating activities is not unusual. So, what happened to the other \$120,000 of profit? Where is it? Is there some accounting sleight of hand going on? Did the business really earn \$520,000 net income if cash increased only \$400,000? These are good questions, and I will try to answer them as directly as I can without hitting you over the head with a lot of technical details at this point.

Here's one scenario that explains the \$120,000 difference between profit (net income) and cash flow from operating activities:

- ✓ Suppose the business collected \$50,000 less cash from customers during the year than the total sales revenue reported in its income statement. (Remember that the business sells on credit and its customers take time before actually paying the business.) Therefore, there's a cash flow lag between booking sales and collecting cash from customers. As a result, the business's cash inflow from customers was \$50,000 less than the sales revenue amount used to calculate profit for the year.
- ✓ Also suppose that during the year the business made cash payments connected with its expenses that were \$70,000 higher than the total amount of expenses reported in the income statement. For example, a business that sells products buys or makes the products, and then holds the products in inventory for some time before it sells the items to customers. Cash is paid out before the cost of goods sold expense is recorded. This is one example of a difference between cash flow connected with an expense and the amount recorded in the income statement for the expense.

In this scenario, the two factors cause cash flow from profit-making (operating) activities to be \$120,000 less than the net income earned for the year. Cash collections from customers were \$50,000 less than sales revenue, and cash payments for expenses were \$70,000 more than the amount of expenses recorded to the year. In Chapter 6, I explain the several factors that cause cash flow and bottom-line profit to diverge.



At this point the key idea to hold in mind is that the sales revenue reported in the income statement does not equal cash collections from customers during the year, and expenses do not equal cash payments during the year. Cash collections from sales minus cash payments for expenses gives cash flow from a company's profit-making activities; sales revenue minus expenses gives the net income earned for the year. Cash flow almost always is different from net income. Sorry mate, but that's how the cookie crumbles.

Gleaning Key Information from Financial Statements

The whole point of reporting financial statements is to provide important information to people who have a financial interest in the business — mainly its outside investors and lenders. From that information, investors and lenders are able to answer key questions about the financial performance and condition of the business. I discuss some of these key questions in this section. In Chapters 13 and 17, I discuss a longer list of questions and explain financial statement analysis.

How's profit performance?

Investors use two important measures to judge a company's annual profit performance. Here, I use the data from Figures 2-1 and 2-2 (the dollar amounts are in thousands):

✓ **Return on sales** = profit as a percent of annual sales revenue:

$\$520 \text{ bottom-line annual profit (net income)} \div \$10,400 \text{ annual sales revenue} = 5.0\%$

✓ **Return on equity** = profit as a percent of owners' equity:

$\$520 \text{ bottom-line annual profit (net income)} \div \$2,470 \text{ owners' equity} = 21.1\%$

Profit looks pretty thin compared with annual sales revenue. The company earns only 5 percent return on sales. In other words, 95 cents out of every sales dollar goes for expenses, and the company keeps only 5 cents for profit. (Many businesses earn 10 percent or higher return on sales.) However, when profit is compared with owners' equity, things look a lot better. The business earns more than 21 percent profit on its owners' equity. I'd bet you don't have many investments earning 21 percent per year.

Is there enough cash?

Cash is the lubricant of business activity. Realistically a business can't operate with a zero cash balance. It can't wait to open the morning mail to see how much cash it will have for the day's needs (although some businesses try to operate on a shoestring cash balance). A business should keep enough cash on hand to keep things running smoothly even when there are interruptions in the normal inflows of cash. A business has to meet its payroll on time, for example. Keeping an adequate balance in the checking account serves as a buffer against unforeseen disruptions in normal cash inflows.

At the end of the year, the business in our example has \$1 million cash on hand (refer to Figure 2-2). This cash balance is available for general business purposes. (If there are restrictions on how it can use its cash balance, the business is obligated to disclose the restrictions.) Is \$1 million enough? Interestingly, businesses do not have to comment on their cash balance. I've never seen such a comment in a financial report.

The business has \$650,000 in operating liabilities that will come due for payment over the next month or so (refer to Figure 2-2). So, it has enough cash to pay these liabilities. But it doesn't have enough cash on hand to pay its operating liabilities and its \$2.08 million interest-bearing debt (refer to Figure 2-2 again). Lenders don't expect a business to keep a cash balance more than the amount of debt; this condition would defeat the very purpose of lending money to the business, which is to have the business put the money to good use and be able to pay interest on the debt.

Lenders are more interested in the ability of the business to control its cash flows, so that when the time comes to pay off loans it will be able to do so. They know that the other, non-cash assets of the business will be converted into cash flow. Receivables will be collected, and products held in inventory will be sold and the sales will generate cash flow. So, you shouldn't focus just on cash; you should throw the net wider and look at the other assets as well.

Taking this broader approach, the business has \$1 million cash, \$800,000 receivables, and \$1.56 million inventory, which adds up to \$3.36 million of cash and cash potential. Relative to its \$2.73 million total liabilities (\$650,000 operating liabilities plus \$2.08 million debt), the business looks in pretty good shape. On the other hand, if it turns out that the business is not able to collect its receivables and is not able to sell its products, it would end up in deep doo-doo.



One other way to look at a business's cash balance is to express its cash balance in terms of how many days of sales the amount represents. In the example, the business has an ending cash balance equal to 35 days of sales, calculated as follows:

$$\begin{aligned} \$10,400,000 \text{ annual sales revenue} \div 365 \text{ days} &= \\ &= \$28,493 \text{ sales per day} \end{aligned}$$

$$\begin{aligned} \$1,000,000 \text{ cash balance} \div \$28,493 \text{ sales per day} &= \\ &= 35 \text{ days} \end{aligned}$$

The business's cash balance equals a little more than one month of sales activity, which most lenders and investors would consider adequate.

Can you trust the financial statement numbers? Are the books cooked?

Whether the financial statements are correct or not depends on the answers to two basic questions:

- ✓ Does the business have a reliable accounting system in place and employ competent accountants?
- ✓ Has top management manipulated the business's accounting methods or deliberately falsified the numbers?

I'd love to tell you that the answer to the first question is always yes, and the answer to the second question is always no. But you know better, don't you?



What can I tell you? There are a lot of crooks and dishonest persons in the business world who think nothing of manipulating the accounting numbers and cooking the books. Also, organized crime is involved in many businesses. And I have to tell you that in my experience many businesses don't put much effort into keeping their accounting systems up to speed, and they skimp on hiring competent accountants. In short, there is a risk that the financial statements of a business could be incorrect and seriously misleading.

To increase the credibility of their financial statements, many businesses hire independent CPA auditors to examine their accounting systems and records and to express opinions on whether the financial statements conform to established standards. In fact, some business lenders insist on an annual audit by an independent CPA firm as a condition of making the loan. The outside, non-management investors in a privately owned business could vote to have annual CPA audits of the financial statements. Public companies have no choice; under federal securities laws, a public company is required to have annual audits by an independent CPA firm.

Two points: CPA audits are not cheap, and these audits are not always effective in rooting out financial reporting fraud by high-level managers. I discuss these and other points in Chapter 15.

Why no cash distribution from profit?

In this example the business did not distribute any of its profit for the year to its owners. Distributions from profit by a business corporation are called *dividends*. (The total amount distributed is divided up among the stockholders, hence the term “dividends.”) Cash distributions from profit to owners are included in the third section of the statement of cash flows (refer to Figure 2-3). But, in the example, the business did not make any cash distributions from profit — even though it earned \$520,000 net income (refer to Figure 2-1). Why not?

The business realized \$400,000 cash flow from its profit-making (operating) activities (refer to Figure 2-3). In most cases, this would be the upper limit on how much cash a business would distribute from profit to its owners. So you might very well ask whether the business should have distributed, say, at least half of its cash flow from profit, or \$200,000, to its owners. If you owned 20 percent of the ownership shares of the business, you would have received 20 percent, or \$40,000, of the distribution. But you got no cash return on your investment in the business. Your shares should be worth more because the profit for the year increased the company’s owners’ equity. But you did not see any of this increase in your wallet.



Deciding whether to make cash distributions from profit to shareowners is in the hands of the directors of a business corporation. Its shareowners elect the directors, and in theory the directors act in the best interests of the shareowners. So, evidently the directors thought the business had better use for the \$400,000 cash flow from profit than distributing some of it to shareowners. Generally the main reason for not making cash distributions from profit is to finance the growth of the business — to use all the cash flow from profit for expanding the assets needed by the business at the higher sales level. Ideally, the directors of the business would explain their decision not to distribute any money from profit to the shareowners. But, generally, no such comments are made in financial reports.

Is making profit ethical?

Many people have the view that making profit is unethical; they think profit is a form of theft — from employees who are not paid enough, from customers who are charged too much, from finding loopholes in the tax laws, and so on. (Profit critics usually don't say anything about the ethical aspects of a loss; they don't address the question of who should absorb the effects of a loss.) I must admit that profit critics are sometimes proved right because some businesses make profit by using illegal or unethical means, such as false advertising, selling unsafe products, paying employees lower wages than they are legally entitled to, deliberately under-funding

retirement plans for employees, and other immoral tactics. Of course in making profit a business should comply with all applicable laws, conduct itself in an ethical manner, and play fair with everyone it deals with. In my experience most businesses strive to behave according to high ethical standards, although under pressure they cut corners and take the low road in certain areas. Keep in mind that businesses provide jobs, pay several kinds of taxes, and are essential cogs in the economic system. Even though they are not perfect angels, where would we be without them?

Keeping in Step with Accounting and Financial Reporting Standards

The unimpeded flow of capital is absolutely critical in a free market economic system and in the international flow of capital between countries. Investors and lenders put their capital to work where they think they can get the best returns on their investments consistent with the risks they're willing to take. To make these decisions, they need the accounting information provided in financial statements of businesses.

Imagine the confusion that would result if every business were permitted to invent its own accounting methods for measuring profit and for putting values on assets and liabilities. What if every business adopted its own individual accounting terminology and followed its own style for presenting financial statements? Such a state of affairs would be a Tower of Babel.

Recognizing U.S. standards

The authoritative standards and rules that govern financial accounting and reporting by businesses based in the United States are called *generally accepted accounting principles (GAAP)*. When you read the financial statements of a business, you're entitled to assume that the business has fully

complied with GAAP in reporting its cash flows, profit-making activities, and financial condition — *unless* the business makes very clear that it has prepared its financial statements using some other basis of accounting or has deviated from GAAP in one or more significant respects.



If GAAP are not the basis for preparing its financial statements, a business should make very clear which other basis of accounting is being used and should avoid using titles for its financial statements that are associated with GAAP. For example, if a business uses a simple cash receipts and cash disbursements basis of accounting — which falls way short of GAAP — it should not use the terms *income statement* and *balance sheet*. These terms are part and parcel of GAAP, and their use as titles for financial statements implies that the business is using GAAP.

I won't bore you with a lengthy historical discourse on the development of accounting and financial reporting standards in the United States. The general consensus (backed up by law) is that businesses should use consistent accounting methods and terminology. General Motors and Microsoft should use the same accounting methods; so should Wells Fargo and Apple. Of course, businesses in different industries have different types of transactions, but the same types of transactions should be accounted for in the same way. That is the goal.

There are upwards of 10,000 public companies in the United States and easily more than a million private-owned businesses. Now, am I telling you that all these businesses should use the same accounting methods, terminology, and presentation styles for their financial statements? Putting it in such a stark manner makes me suck in my breath a little. The correct answer is that all businesses *should* use the same rulebook of GAAP. However, the rulebook permits alternative accounting methods for some transactions. Furthermore, accountants have to interpret the rules as they apply GAAP in actual situations. The devil is in the details.

In the United States, GAAP constitute the gold standard for preparing financial statements of business entities (although the gold is somewhat tarnished, as I discuss in later chapters). The presumption is that any deviations from GAAP would cause misleading financial statements. If a business honestly thinks it should deviate from GAAP — in order to better reflect the economic reality of its transactions or situation — it should make very clear that it has not complied with GAAP in one or more respects. If deviations from GAAP are not disclosed, the business may have legal exposure to those who relied on the information in its financial report and suffered a loss attributable to the misleading nature of the information.

Financial accounting and reporting by government and not-for-profit entities

In the grand scheme of things, the world of financial accounting and reporting can be divided into two hemispheres: for-profit business entities and not-for-profit entities. A large body of authoritative rules and standards called *generally accepted accounting principles (GAAP)* have been hammered out over the years to govern accounting methods and financial reporting of business entities in the United States. Accounting and financial reporting standards have also evolved and been established for government and not-for-profit entities. This book centers on business accounting methods and financial reporting. Financial reporting by government and not-for-profit entities is a broad and diverse territory, which is beyond the scope of this book. I'll say just a few words here.

People generally don't demand financial reports from government and not-for-profit organizations. Federal, state, and local government entities issue financial reports that are in the public domain, although few taxpayers are interested in

reading them. When you donate money to a charity, school, or church, you don't always get financial reports in return. On the other hand, many private, not-for-profit organizations issue financial reports to their members — credit unions, homeowners' associations, country clubs, mutual insurance companies (owned by their policy holders), pension plans, labor unions, healthcare providers, and so on. The members or participants may have an equity interest or ownership share in the organization and, thus, they need financial reports to apprise them of their financial status with the entity.

Government and other not-for profit entities should comply with the established accounting and financial reporting standards that apply to their type of entity. **Caution:** Many not-for-profit entities use accounting methods different than business GAAP — in some cases very different — and the terminology in their financial reports is somewhat different than in the financial reports of business entities.

Getting to know the U.S. standard setters

Okay, so everyone reading a financial report is entitled to assume that GAAP have been followed (unless the business clearly discloses that it is using another basis of accounting).



The basic idea behind the development of GAAP is to measure profit and to value assets and liabilities *consistently* from business to business — to establish broad-scale uniformity in accounting methods for all businesses. The idea is to make sure that all accountants are singing the same tune from the same hymnal. The purpose is also to establish realistic and objective methods for measuring profit and putting values on assets and liabilities. The authoritative bodies write the tunes that accountants have to sing.

Who are these authoritative bodies? In the United States, the highest-ranking authority in the private (non-government) sector for making pronouncements on GAAP — and for keeping these accounting standards up-to-date — is the Financial Accounting Standards Board (FASB). Also, the federal Securities and Exchange Commission (SEC) has broad powers over accounting and financial reporting standards for companies whose securities (stocks and bonds) are publicly traded. Actually, the SEC outranks the FASB because it derives its authority from federal securities laws that govern the public issuance and trading in securities. The SEC has on occasion overridden the FASB, but not very often.

GAAP also include minimum requirements for *disclosure*, which refers to how information is classified and presented in financial statements and to the types of information that have to be included with the financial statements, mainly in the form of footnotes. The SEC makes the disclosure rules for public companies. Disclosure rules for private companies are controlled by GAAP. Chapter 12 explains the disclosures that are required in addition to the three primary financial statements of a business (the income statement, balance sheet, and statement of cash flows).

The official set of GAAP rules is *big* — more than a thousand pages! These rules have evolved over many decades — some rules remaining the same for many years, some being superseded and modified from time to time, and new rules being added. Like lawyers who have to keep up on the latest court cases, accountants have to keep up with the latest developments at the FASB and SEC (and other places as well).

Some people think the rules have become too complicated and far too technical. If you flip through the GAAP rulebook, you'll see why people come to this conclusion. However, if the rules are not specific and detailed enough, different accountants will make different interpretations that will cause inconsistency from one business to the next regarding how profit is measured and how assets and liabilities are reported in the balance sheet. So, the FASB is between a rock and a hard place. For the most part it issues rules that are rather detailed and technical.

Going worldwide

Although it's a bit of an overstatement, today the investment of capital knows no borders. U.S. capital is invested in European and other countries, and capital from other countries is invested in U.S. businesses. In short, the flow of capital has become international. Accounting and financial reporting standards in other countries are not bound by U.S. GAAP, and in fact there are significant differences that cause problems.

Outside the United States, the main authoritative accounting standards setter is the International Accounting Standards Board (IASB), which is based in London. The IASB was founded in 2001. Over 7,000 public companies have their securities listed on the several stock exchanges in the European Union (EU) countries. In many regards, the IASB operates in a manner similar to the Financial Accounting Standards Board (FASB) in the United States, and the two have very similar missions. The IASB has already issued many standards, which are called International Financial Reporting Standards.

The two main authoritative accounting rule-making bodies — the FASB and the IASB — are not on a collision course. Just the opposite: They are on a convergence course. They are working together toward developing global standards that all businesses would follow, regardless of which country a business is domiciled in. Of course political issues and national pride come into play. The term *harmonization* is favored, which sidesteps difficult issues regarding the future roles of the FASB and IASB in the issuance of international accounting standards.

One major obstacle deterring the goal of world-wide accounting standards concerns which sort of standards should be issued:

- ✓ The FASB follows a *rules-based* approach. Its pronouncements have been very detailed and technical. The idea is to leave very little room for differences of interpretation.
- ✓ The IASB favors a *principles-based* method. Under this approach, accounting standards are stated in fairly broad general language and the detailed interpretation of the standards is left to accountants in the field.

The two authoritative bodies have disagreed on some key accounting issues, and the road to convergence of accounting standards will be rocky, in my view. But no country's economy is an island to itself. The stability, development, and growth of an economy depend on securing capital from both inside and outside the country. The flow of capital across borders by investors and lenders gives enormous impetus for the development of uniform international accounting standards. Stay tuned; in the coming decade I think we will see more and more convergence of accounting standards in different countries. Then again, I could be dead wrong.

Noting a divide between public and private companies

Traditionally, GAAP and financial reporting standards were viewed as equally applicable to public companies (generally large corporations) and private (generally smaller) companies. Today, however, we are witnessing a growing distinction between accounting and financial reporting standards for public versus private companies. Although most accountants don't like to admit it,

there's always been a de facto divergence in actual financial reporting practices by private companies compared with the more rigorously enforced standards for public companies. For example, many private companies still do not include a statement of cash flows in their financial reports, even though this has been a GAAP requirement since 1975.



It's probably safe to say that the financial reports of most private businesses measure up to GAAP standards in all significant respects. At the same time, however, there's little doubt that the financial reports of some private companies fall short. As a matter of fact, in the invitation to comment on the proposal to establish an advisory committee for private company accounting standards, the FASB said that "compliance with GAAP standards for many for-profit private companies is a choice rather than a requirement because private companies can often control who receives their financial information." The FASB and the American Institute of Certified Public Accountants (AICPA) recently established the Private Company Financial Reporting Committee, which will advise the FASB regarding how to adapt accounting standard pronouncements for private companies.

Private companies do not have many of the accounting problems of large, public companies. For example, many public companies deal in complex derivative instruments, issue stock options to managers, provide highly developed defined-benefit retirement and health benefit plans for their employees, enter into complicated inter-company investment and joint venture operations, have complex organizational structures, and so on. Most private companies do not have to deal with these issues.

Finally, I should mention that smaller private businesses do not have as much money to spend on their accountants and auditors. Big companies can spend big bucks and hire highly qualified accountants. Furthermore, public companies are legally required to have annual audits by independent CPAs (see Chapter 15). The annual audit keeps a big business up-to-date on accounting and financial reporting standards. Frankly, smaller private companies are somewhat at a disadvantage in keeping up with accounting and financial reporting standards.

Recognizing how income tax methods influence accounting methods

Generally speaking (and I'm being *very* general here), the U.S. federal income tax accounting rules for determining the annual taxable income of a business are in agreement with GAAP. In other words, the accounting methods used for figuring taxable income and for figuring business profit before income tax are

in general agreement. Having said this, I should point out that several differences do exist. A business may use one accounting method for filing its annual income tax returns and a different method for measuring its annual profit both internally for management reporting purposes and externally for preparing its financial statements to outsiders.

Many people argue that certain income tax accounting methods have had an unhealthy impact on GAAP. For example, the income tax law permits accelerated methods for depreciating long-lived operating assets — machines, tools, autos and trucks, and office equipment. (Even the cost of buildings can be depreciated over shorter life spans than the actual lives of most buildings.) Other depreciation methods may be more realistic, but many businesses use accelerated depreciation methods both in their income tax returns and in their financial statements.

Following the rules and bending the rules

An often repeated accounting story concerns three persons interviewing for an important accounting position. They are asked one key question: “What’s 2 plus 2?” The first candidate answers, “It’s 4,” and is told, “Don’t call us, we’ll call you.” The second candidate answers, “Well, most of the time the answer is 4, but sometimes it’s 3 and sometimes it’s 5.” The third candidate answers: “What do you want the answer to be?” Guess who gets the job. This story exaggerates, of course, but it does have an element of truth.

Depending on estimates and assumptions

The importance of estimates and assumptions in financial statement accounting is illustrated in a footnote you see in many annual financial reports such as the following:

“The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect reported amounts. Examples of the more significant estimates include: accruals and reserves for warranty and product liability losses, post-employment benefits, environmental costs, income taxes, and plant closing costs.”

Accounting estimates should be based on the best available information, of course, but most

estimates are subjective and arbitrary to some extent. The accountant can choose either pessimistic or optimistic estimates, and thereby record either conservative profit numbers or more aggressive profit numbers. One key prediction made in preparing financial statements is called the *going-concern assumption*. The accountant assumes that the business is not facing imminent shutdown of its operations and the forced liquidations of its assets, and that it will continue as usual for the foreseeable future. If a business is in the middle of bankruptcy proceedings, the accountant changes focus to the liquidation values of its assets.

The point is that interpreting GAAP is not cut-and-dried. Many accounting standards leave a lot of wiggle room for interpretation. *Guidelines* would be a better word to describe many accounting rules. Deciding how to account for certain transactions and situations requires seasoned judgment and careful analysis of the rules. Furthermore, many estimates have to be made. (See the sidebar “Depending on estimates and assumptions.”) Deciding on accounting methods requires, above all else, *good faith*.



A business may resort to creative accounting to make profit for the period look better, or to make its year-to-year profit less erratic than it really is (which is called *income smoothing*). Like lawyers who know where to find loopholes, accountants can come up with inventive interpretations that stay within the boundaries of GAAP. I warn you about these creative accounting techniques — also called *massaging the numbers* — at various points in this book. Massaging the numbers can get out of hand and become accounting fraud, also called *cooking the books*. Massaging the numbers has some basis in honest differences for interpreting the facts. Cooking the books goes way beyond interpreting facts; this fraud consists of *inventing* facts and good old-fashioned chicanery. I say more on accounting fraud in Chapters 7 and 15.

Chapter 3

Bookkeeping and Accounting Systems

In This Chapter

- ▶ Distinguishing between bookkeeping and accounting
 - ▶ Getting to know the bookkeeping cycle
 - ▶ Making sure your bookkeeping and accounting systems are rock solid
 - ▶ Doing a double-take on double-entry accounting
 - ▶ Deterring and detecting errors and outright fraud
 - ▶ Choosing computer software wisely
-

I think it's safe to say that most folks are not enthusiastic bookkeepers. You may balance your checkbook against your bank statement every month and somehow manage to pull together all the records you need for your annual federal income tax return. But if you're like me, you stuff your bills in a drawer and just drag them out once a month when you're ready to pay them. And when's the last time you prepared a detailed listing of all your assets and liabilities (even though a listing of assets is a good idea for fire insurance purposes)? Personal computer programs are available to make bookkeeping for individuals more organized, but you still have to enter a lot of data into the program, and most people decide not to put forth the effort.

I don't prepare a summary statement of my earnings and income for the year. And I don't prepare a breakdown of what I spent my money on and how much I saved. Why not? Because I don't need to! Individuals can get along quite well without much bookkeeping — but the exact opposite is true for a business.

There's one key difference between individuals and businesses. Every business must prepare periodic financial statements, the accuracy of which is critical to the business's survival. The business depends on the accounts and records generated by its bookkeeping process to prepare these statements; if

the accounting records are incomplete or inaccurate, the financial statements are incomplete or inaccurate. And inaccuracy simply won't do. In fact, inaccurate and incomplete bookkeeping records could be construed as evidence of fraud.

Obviously, then, business managers have to be sure that the company's bookkeeping and accounting system is adequate and reliable. This chapter shows you what bookkeepers and accountants do, mainly so you have a clear idea of what it takes to be sure that the information coming out of your accounting system is complete, timely, and accurate.

Bookkeeping and Beyond



Bookkeeping refers mainly to the record-keeping aspects of accounting; it is essentially the process (some would say the drudgery) of recording all the information regarding the transactions and financial activities of a business (or other organization, venture, or project). Bookkeeping is an indispensable subset of accounting. The term *accounting* is much broader, going into the realm of designing the bookkeeping system, establishing controls to make sure the system is working well, and analyzing and verifying the recorded information. Accountants give orders; bookkeepers follow them.

You can think of accounting as what goes on before and after bookkeeping. Accountants prepare reports based on the information accumulated by the bookkeeping process: financial statements, tax returns, and various confidential reports to managers. Measuring profit is a critical task that accountants perform — a task that depends on the accuracy of the information recorded by the bookkeeper. The accountant decides how to measure sales revenue and expenses to determine the profit or loss for the period. The tough questions about profit — how to measure it in our complex and advanced economic environment, and what profit consists of — can't be answered through bookkeeping alone.

Pedaling Through the Bookkeeping Cycle

Figure 3-1 presents an overview of the bookkeeping cycle side-by-side with elements of the accounting system. You can follow the basic bookkeeping steps down the left side. The accounting elements are shown in the right column. The basic steps in the bookkeeping sequence, explained briefly, are as follows. (See also “Managing the Bookkeeping and Accounting System,” later in this chapter, for more details on some of these steps.)

Steps in Bookkeeping Cycle	Accounting Functions
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- (1) Identify and prepare source documents for all transactions, operations, activities, and developments that should be recorded.
- (2) Enter in source documents financial effects and other relevant details that apply for the transactions and other events.
- (3) Make original entries of financial effects of transactions and other events, file source documents, and build accounting database.
- (4) Carry out end-of-period procedures, which includes recording the very important adjusting and correcting entries.
- (5) Prepare adjusted trial balance, to provide the up-to-date and accurate listing of all accounts at end of period.
- (6) Perform closing procedures at end of fiscal year to prepare accounts for next period.

Design source documents that specify the detailed information to record and which approvals and signs-offs are required.

Establish specific rules and methods for determining the financial effects of transactions and other events.

Establish formal chart of accounts, both control and subsidiary accounts, in which transactions and events are recorded.

Oversee, review, and approve the end-of-period adjusting and correcting entries, both routine and unusual ones.

Prepare and distribute:
 > Internal accounting reports to managers
 > Tax returns to government agencies
 > External financial statements

Give final approval to closing the books for the year, and determine whether changes are needed in accounting system.

Figure 3-1:
The basic steps of the bookkeeping cycle, with the corresponding accounting functions.

1. Prepare *source documents* for all transactions, operations, and other events of the business; source documents are the starting point in the bookkeeping process.

When buying products, a business gets a *purchase invoice* from the supplier. When borrowing money from the bank, a business signs a *note payable*, a copy of which the business keeps. When a customer uses a credit card to buy the business's product, the business gets the *credit card slip* as evidence of the transaction. When preparing payroll checks, a business depends on *salary rosters* and *time cards*. All of these key business forms serve as sources of information into the bookkeeping system — in other words, information the bookkeeper uses in recording the financial effects of the activities of the business.

2. Determine and enter in source documents the *financial effects* of the transactions and other events of the business.

Transactions have financial effects that must be recorded — the business is better off, worse off, or at least “different off” as the result of its transactions. Examples of typical business transactions include paying employees, making sales to customers, borrowing money from the bank, and buying products that will be sold to customers. The bookkeeping process begins by determining the relevant information about each transaction. The chief accountant of the business establishes the rules and methods for measuring the financial effects of transactions. Of course, the bookkeeper should comply with these rules and methods.

3. Make original entries of financial effects into journals and accounts, with appropriate references to source documents.

Using the source document(s) for every transaction, the bookkeeper makes the first, or original, entry into a journal and then into the business’s accounts. Only the official, established chart of accounts should be used in recording transactions. A *journal* is a chronological record of transactions in the order in which they occur — like a very detailed personal diary. In contrast, an *account* is a separate record, or page as it were, for each asset, each liability, and so on. One transaction affects two or more accounts. The journal entry records the whole transaction in one place; then each piece is recorded in the two or more accounts that are affected by the transaction.

Here’s a simple example that illustrates recording a transaction in a *journal* and then posting the changes caused by the transaction in the *accounts*. Expecting a big demand from its customers, a retail bookstore purchases, on credit, 50 copies of *Accounting For Dummies*, 4th Edition, from the publisher, Wiley. The books are received and placed on the shelves. (Fifty copies is a lot to put on the shelves, but my relatives promised to rush down and buy several copies each.) The bookstore now owns the books and also owes Wiley \$650, which is the cost of the 50 copies. Here we look only at recording the purchase of the books, not recording subsequent sales of the books and paying the bill to Wiley.

The bookstore has established a specific inventory account called “Inventory–Trade Paperbacks” for books like mine. And the purchase liability to the publisher should be entered in the account “Accounts Payable–Publishers.” So the journal entry for this purchase is recorded as follows:

Asset:	Inventory–Trade Paperbacks	+ \$650.00
Liability:	Accounts Payable–Publishers	+ \$650.00

This pair of changes is first recorded in one journal entry. Then, some time later, each change is *posted*, or recorded in the separate accounts — one an asset and the other a liability.

In ancient days, bookkeepers had to record these entries by hand, and even today there's nothing wrong with a good hand-entry (manual) bookkeeping system. But bookkeepers now can use computer programs that take over many of the tedious chores of bookkeeping (see the last section in this chapter, "Using Accounting Software"). Of course, typing has replaced hand cramps with carpal tunnel syndrome, but at least the work gets done more quickly and with fewer errors!



I can't exaggerate the importance of entering transaction data correctly and in a timely manner. The prevalence of data entry errors was one important reason that most retailers use cash registers that read bar-coded information on products, which more accurately capture the necessary information and speed up the entry of the information.

4. Perform end-of-period procedures — the critical steps for getting the accounting records up-to-date and ready for the preparation of management accounting reports, tax returns, and financial statements.

A *period* is a stretch of time — from one day to one month to one quarter (three months) to one year — that is determined by the needs of the business. A year is the longest period of time that a business would wait to prepare its financial statements. Most businesses need accounting reports and financial statements at the end of each quarter, and many need monthly financial statements.



Before the accounting reports can be prepared at the end of the period (refer to Figure 3-1), the bookkeeper needs to bring the accounts of the business up-to-date and complete the bookkeeping process. One step, for example, is recording the *depreciation expense* for the period (see Chapter 4 for more on depreciation). Another step is getting an actual count of the business's inventory so that the inventory records can be adjusted to account for shoplifting, employee theft, and other losses.

The accountant needs to take the final step and check for errors in the business's accounts. Data entry clerks and bookkeepers may not fully understand the unusual nature of some business transactions and may have entered transactions incorrectly. One reason for establishing *internal controls* (discussed in "Enforce strong — I mean strong! — internal controls," later in this chapter) is to keep errors to an absolute minimum. Ideally, accounts should contain very few errors at the end of the period, but the accountant can't make any assumptions and should make a final check for any errors that may have fallen through the cracks.

5. Compile the adjusted trial balance for the accountant, which is the basis for preparing reports, tax returns, and financial statements.

After all the end-of-period procedures have been completed, the bookkeeper compiles a complete listing of all accounts, which is called the *adjusted trial balance*. Modest-sized businesses maintain hundreds of accounts for their various assets, liabilities, owners' equity, revenue, and expenses. Larger businesses keep thousands of accounts, and very large businesses may keep more than 10,000 accounts. In contrast, external financial statements, tax returns, and internal accounting reports to managers contain a relatively small number of accounts. For example, a typical external balance sheet reports only 25 to 30 accounts (maybe even fewer), and a typical income tax return contains a relatively small number of accounts.

The accountant takes the adjusted trial balance and telescopes similar accounts into one summary amount that is reported in a financial report or tax return. For example, a business may keep hundreds of separate inventory accounts, every one of which is listed in the adjusted trial balance. The accountant collapses all these accounts into one summary inventory account that is presented in the external balance sheet of the business. In grouping the accounts, the accountant should comply with established financial reporting standards and income tax requirements.

6. Close the books — bring the bookkeeping for the fiscal year just ended to a close and get things ready to begin the bookkeeping process for the coming fiscal year.

Books is the common term for a business's complete set of *accounts*. A business's transactions are a constant stream of activities that don't end tidily on the last day of the year, which can make preparing financial statements and tax returns challenging. The business has to draw a clear line of demarcation between activities for the year (the 12-month accounting period) ended and the year yet to come by *closing the books* for one year and starting with fresh books for the next year.



Most medium-size and larger businesses have an *accounting manual* that spells out in great detail the specific accounts and procedures for recording transactions. But all businesses change over time, and they occasionally need to review their accounting system and make revisions. Companies do not take this task lightly; discontinuities in the accounting system can be major shocks and have to be carefully thought out. Nevertheless, bookkeeping and accounting systems can't remain static for very long. If these systems were never changed, bookkeepers would still be sitting on high stools making entries with quill pens and bottled ink in leather-bound ledgers.

Managing the Bookkeeping and Accounting System

In my experience, too many business managers and owners ignore their bookkeeping and accounting systems or take them for granted — unless something goes wrong. They assume that if the books are in balance, everything is okay. The section “Double-Entry Accounting for Single-Entry Folks,” later in this chapter, covers exactly what it means to have “books in balance” — it does *not* necessarily mean that everything is okay.

To determine whether your bookkeeping system is up to snuff, check out the following sections, which provide a checklist of the most important elements of a good system.

Categorize your financial information: The chart of accounts

Suppose that you’re the accountant for a corporation and you’re faced with the daunting task of preparing the annual federal income tax return for the business. This demands that you report the following kinds of expenses (and this list contains just the minimum!):

- ✓ Advertising
- ✓ Bad debts
- ✓ Charitable contributions
- ✓ Compensation of officers
- ✓ Cost of goods sold
- ✓ Depreciation
- ✓ Employee benefit programs
- ✓ Interest
- ✓ Pensions and profit-sharing plans
- ✓ Rents
- ✓ Repairs and maintenance
- ✓ Salaries and wages
- ✓ Taxes and licenses

You must provide additional information for some of these expenses. For example, the cost of goods sold expense is determined in a schedule that also requires inventory cost at the beginning of the year, purchases during the year, cost of labor during the year (for manufacturers), other costs, and inventory cost at year-end.

Where do you start? Well, if it's March 1 and the tax return deadline is March 15, you start by panicking — unless you were smart enough to think ahead about the kinds of information your business would need to report. In fact, when your accountant first designs your business's accounting system, he or she should dissect every report to managers, the external financial statements, and the tax returns, breaking down all the information into categories such as those I just listed.



For each category, you need an *account*, a record of the activities in that category. An account is basically a focused history of a particular dimension of a business. Individuals can have accounts, too — for example, your checkbook is an account of the cash inflows and outflows and the balance of your checking account (assuming that you remember to record all activities and reconcile your checkbook against your bank statement). I doubt that you keep a written account of the coin and currency in your wallet, pockets, glove compartment, and sofa cushions, but a business needs to. An account serves as the source of information for preparing financial statements, tax returns, and reports to managers.

The term *general ledger* refers to the complete set of accounts established and maintained by a business. The *chart of accounts* is the formal index of these accounts — the complete listing and classification of the accounts used by the business to record its transactions. *General ledger* usually refers to the actual accounts and often to the balances in these accounts at some particular time.

The chart of accounts, even for a relatively small business, normally contains 100 or more accounts. Larger business organizations need thousands of accounts. The larger the number, the more likely that the accounts are given number codes according to some scheme — for example, all assets may be in the 100 to 300 range, all liabilities in the 400 to 500 range, and so on.



As a business manager, you should make sure that the controller (chief accountant), or perhaps an outside CPA consultant, reviews the chart of accounts periodically to determine whether the accounts are up-to-date and adequate for the business's needs. Over time, income tax rules change, the company goes into new lines of business, the company adopts new employee benefit plans, and so on. Most businesses are in constant flux, and the chart of accounts has to keep up with these changes.



More than you may want to know right now about types of accounts

Accounts fall into two basic types according to which financial statement their balances are reported in:

- ✓ **Balance sheet accounts:** Assets, liabilities, and owners' equity accounts
- ✓ **Income statement accounts:** Revenue and income accounts, and expense and loss accounts

In other words, the accounts are divided between those that constitute the financial condition of the business (assets, liabilities, and owners' equity accounts) and those that summarize the profit-making activities of the business (revenue and expenses, plus income and loss accounts).

In actual practice a business needs other types of accounts as well. For example, a business keeps so-called *contra* accounts, which are the negative side of certain accounts. The two main examples are these:

- ✓ *Accumulated depreciation*, the balance of which is deducted from the original cost balance of long-term operating assets that are being depreciated over time
- ✓ *Allowance for doubtful accounts*, the balance of which is deducted from the balance of the accounts receivable asset account in anticipation that some receivables will not be collected

Note: Although a business reports a statement of cash flows, in addition to its balance sheet and income statement, the cash flow amounts that are reported in the cash flow statement are prepared from information already included in the balance sheet and income statement accounts (see Chapter 6). So rest assured that the balance sheet and income statement accounts taken together are all the accounts a business needs.

Standardize source document forms and procedures

It's said that armies move on their stomachs. Well, businesses move on their paperwork. Placing an order to buy products, selling a product to a customer, determining the earnings of an employee for the month — virtually every business transaction needs paperwork, generally known as *source documents*. Source documents serve as evidence of the terms and conditions agreed upon by the business and the other person or organization that it's dealing with. Both parties receive some kind of source document. For example, for a sale at a cash register, the customer gets a sales receipt, and the business keeps a running tape of all transactions in the register.

Clearly, an accounting system needs to standardize the forms and procedures for processing and recording all normal, repetitive transactions and should control the generation and handling of these source documents. From the bookkeeping point of view, these business forms and documents are very important because they provide the input information needed for recording transactions in the business's accounts. Sloppy paperwork leads to sloppy accounting records, and sloppy accounting records just won't do when the time comes to prepare tax returns and financial statements.



If you're the owner of a small business, you may want to check out an office supply store to see the kinds of forms that you can buy right off the shelf. You can find many of the basic forms and documents that you need for recording business transactions. Also, computer accounting software packages today include templates for most business forms and source documents needed by a business.

Hire competent, trained personnel

A business shouldn't be penny-wise and pound-foolish: What good is meticulously collecting source documents if the information on those documents isn't entered into your system correctly? You shouldn't try to save a few bucks by hiring the lowest-paid people you can find. Bookkeepers and accountants, like all other employees in a business, should have the skills and knowledge needed to perform their functions. Here are some guidelines for choosing the right people to enter and control the flow of your business's data and for making sure that those people *remain* the right people:

✓ **College degree:** Many accountants in business organizations have a college degree with a major in accounting. However, as you move down the accounting department, you find that more and more employees do not have a college degree and perhaps don't even have any courses in accounting — they learned bookkeeping methods and skills through on-the-job training. Although these employees may have good skills and instincts, my experience has been that they tend to do things by the book; they often lack the broader perspective necessary for improvising and being innovative. So you want to at least look twice at a potential employee who has no college-based accounting background.



✓ **CPA or CMA:** When hiring higher-level accountants in a business organization, you want to determine whether they should be certified public accountants (CPAs). Most larger businesses insist on this credential, along with a specific number of years' experience in public accounting. The other main professional accounting credential is the *CMA*, or *certified management accountant*, sponsored by the Institute of Management Accountants (IMA). Unlike the CPA license (which I discuss in Chapter 1), the CMA designation of professional achievement is not regulated by the state. The CMA is evidence that the person has passed tough exams and has a good understanding of business accounting and income tax.

In my opinion, a business is prudent to require the CPA or CMA credential for its chief accountant (who usually holds the title of *controller*), or a business should regularly consult with a CPA in public practice for advice on its accounting system and on accounting problems that come up.

- ✔ **Continuing education:** Bookkeepers and accountants need continuing education to keep up with changes in the income tax law and financial reporting requirements, as well as changes in how the business operates. Ideally, bookkeepers and accountants should be able to spot needed improvements and implement these changes — to make accounting reports to managers more useful, for example. Fortunately, many short-term courses, home-study programs, and the like are available at very reasonable costs for keeping up on the latest accounting developments. Many continuing education courses are available on the Internet, but be sure to check out the standards of an Internet course. States require that CPAs in public practice take 30 to 40 hours per year of continuing education in approved courses to keep their licenses.
- ✔ **Integrity:** What's possibly the most important quality to look for is also the hardest to judge. Bookkeepers and accountants need to be honest people because of the control they have over your business's financial records. Conduct a careful background check when hiring new accounting personnel. After you hire them, periodically (and discreetly) check whether their lifestyles match their salaries. Small-business owners and managers have closer day-in and day-out contact with their accountants and bookkeepers, which can be a real advantage — they get to know their accountants and bookkeepers on a personal level. Even so, you can find many cases where a trusted bookkeeper has embezzled many thousands of dollars over the years. I could tell you many true stories about long-time, “trusted” bookkeepers that made off with some of the family fortune.

Enforce strong — I mean strong! — internal controls



Any accounting system worth its salt should establish and vigorously enforce effective *internal controls* — basically, additional forms and procedures over and above what's needed strictly to move operations along. These additional procedures serve to deter and detect errors (honest mistakes) and all forms of dishonesty by employees, customers, suppliers, and even managers themselves. Unfortunately, many businesses pay only lip service to internal controls; they don't put into place good internal controls, or they don't seriously enforce their internal controls (they just go through the motions).

Internal controls against mistakes and theft

Accounting is characterized by a lot of paperwork — forms and procedures are plentiful. Most business managers and employees have their enthusiasm under control when it comes to the paperwork and procedures that the accounting department requires. One reason for this attitude, in my experience, is that non-accountants fail to appreciate the need for accounting controls.

These internal controls are designed to minimize errors in bookkeeping, which has to process a great deal of detailed information and data. Equally important, controls are necessary to deter employee fraud, embezzlement, and theft, as well as fraud and dishonest behavior against the business from the outside. Every business is a target for fraud and theft, such as customers who shoplift; suppliers who deliberately ship less than the quantities invoiced to a business and hope that the business won't notice the difference (called *short-counts*); and even dishonest managers themselves, who may pad expense accounts or take kickbacks from suppliers or customers.

For these reasons a business should take steps to avoid being an easy target for dishonest behavior by its employees, customers, and suppliers. Every business should institute and enforce certain control measures, many of which are integrated

into the accounting process. Following are five common examples of internal control procedures:

- ✔ Requiring a second signature on cash disbursements over a certain dollar amount
- ✔ Matching up receiving reports based on actual counts and inspections of incoming shipments with purchase orders before cutting checks for payment to suppliers
- ✔ Requiring both a sales manager's and another high-level manager's approval for *write-offs* of customers' overdue receivable balances (that is, closing the accounts on the assumption that they won't be collected), including a checklist of collection efforts that were undertaken
- ✔ Having auditors or employees who do not work in the warehouse take surprise counts of products stored in the company's warehouse and compare the counts with inventory records
- ✔ Requiring mandatory vacations by every employee, including bookkeepers and accountants, during which time someone else does that person's job (because a second person may notice irregularities or deviations from company policies)

Internal controls are like highway truck weigh stations, which make sure that a truck's load doesn't exceed the limits and that the truck has a valid plate. You're just checking that your staff is playing by the rules. For example, to prevent or minimize shoplifting, most retailers now have video surveillance, as well as tags that set off the alarms if the customer leaves the store with the tag still on the product. Likewise, a business should implement certain procedures and forms to prevent (as much as possible) theft, embezzlement, kickbacks, fraud, and simple mistakes by its own employees and managers.

The Sarbanes-Oxley Act of 2002 applies to public companies that are subject to the Securities and Exchange Commission (SEC) jurisdiction. Congress passed this law mainly in response to Enron and other massive financial

reporting fraud disasters. The act, which is implemented through the SEC and the Public Company Accounting Oversight Board (PCAOB), requires that public companies establish and enforce a special module of internal controls over their financial reporting. You can find more on this topic in Chapter 15, where I discuss audits and accounting fraud. Although the law applies only to public companies, some accountants worry that the requirements of the law will have a trickle-down effect on smaller private businesses as well.



In my experience, smaller businesses tend to think that they're immune to embezzlement and fraud by their loyal and trusted employees. These are personal friends, after all. Yet, in fact, many small businesses are hit very hard by fraud and usually can least afford the consequences. Most studies of fraud in small businesses have found that the average loss is well into six figures! You know, even in a friendly game of poker with my buddies, we always cut the deck before dealing the cards around the table. Your business, too, should put checks and balances into place to discourage dishonest practices and to uncover any fraud and theft as soon as possible.

Complete the process with end-of-period procedures

Suppose that all transactions during the year have been recorded correctly. Therefore, the accounts of the business are ready for preparing its financial statements, aren't they? Not so fast! Certain additional procedures are necessary at the end of the period to bring the accounts up to snuff for preparing financial statements for the year. Two main things have to be done at the end of the period:

- ✓ **Record normal, routine *adjusting entries*:** For example, depreciation expense isn't a transaction as such and therefore isn't included in the flow of transactions recorded in the day-to-day bookkeeping process. (Chapter 4 explains depreciation expense.) Similarly, certain other expenses and income may not have been associated with a specific transaction and, therefore, have not been recorded. These kinds of adjustments are necessary to have correct balances for determining profit for the period, such as, to make the revenue, income, expense, and loss accounts up-to-date and correct for the year.
- ✓ **Make a careful sweep of all matters to check for other developments that may affect the accuracy of the accounts:** For example, the company may have discontinued a product line. The remaining inventory of these products may have to be removed from the asset account, with a corresponding loss recorded in the period. Or the company may have settled a long-standing lawsuit, and the amount of damages needs to be recorded. Layoffs and severance packages are another example of what the chief accountant needs to look for before preparing reports.



Lest you still think of accounting as dry and dull, let me tell you that end-of-period accounting procedures can stir up controversy of the heated-debate variety. These procedures require that the accountant make decisions and judgment calls that upper management may not agree with. For example, the accountant may suggest recording major losses that would put a big dent in profit for the year or cause the business to report a loss. The outside CPA auditor (assuming that the business has an independent audit of its financial statements) often gets in the middle of the argument. These kinds of debates are precisely why business managers need to know some accounting: to hold up your end of the argument and participate in the great sport of yelling and name-calling — strictly on a professional basis, of course.

Leave good audit trails

Good bookkeeping systems leave good *audit trails*. An audit trail is a clear-cut path of the sequence of events leading up to an entry in the accounts. An accountant starts with the source documents and follows through the bookkeeping steps in recording transactions to reconstruct this path. Even if a business doesn't have an outside CPA do an annual audit, the accountant has frequent occasion to go back to the source documents and either verify certain information in the accounts or reconstruct the information in a different manner. Suppose that a salesperson is claiming some suspicious-looking travel expenses; the accountant would probably want to go through all this person's travel and entertainment reimbursements for the past year.



If the IRS comes in for a field audit of your business, you'd better have good audit trails to substantiate all your expense deductions and sales revenue for the year. The IRS has rules about saving source documents for a reasonable period of time and having a well-defined process for making bookkeeping entries and keeping accounts. Think twice before throwing away source documents too soon. Also, ask your accountant to demonstrate and lay out for your inspection the audit trails for key transactions, such as cash collections, sales, cash disbursements, and inventory purchases. Even computer-based accounting systems recognize the importance of audit trails. Well-designed computer programs provide the ability to backtrack through the sequence of steps in the recording of specific transactions.

Look out for unusual events and developments



Business managers should encourage their accountants to be alert to anything out of the ordinary that may require attention. Suppose that the accounts receivable balance for a customer is rapidly increasing — that is, the customer is buying more and more from your company on credit but isn't

paying for these purchases quickly. Maybe the customer has switched more of his company's purchases to your business and is buying more from you only because he is buying less from other businesses. But maybe the customer is planning to stiff your business and take off without paying his debts. Or maybe the customer is planning to go into bankruptcy soon and is stockpiling products before the company's credit rating heads south.

Don't forget internal time bombs: A bookkeeper's reluctance to take a vacation could mean that she doesn't want anyone else looking at the books.

To some extent, accountants have to act as the eyes and ears of the business. Of course, that's one of the main functions of a business manager as well, but the accounting staff can play an important role.

Design truly useful reports for managers

I have to be careful in this section; I have strong opinions on this matter. I have seen too many off-the-mark accounting reports to managers — reports that are difficult to decipher and not very useful or relevant to the manager's decision-making needs and control functions.

Part of the problem lies with the managers themselves. As a business manager, have you told your accounting staff what you need to know, when you need it, and how to present it in the most efficient manner? When you stepped into your position, you probably didn't hesitate to rearrange your office, and maybe you even insisted on hiring your own support staff. Yet you most likely lay down like a lapdog regarding your accounting reports. Maybe you assume that the reports have to be done a certain way and that arguing for change is no use.

On the other hand, accountants bear a good share of the blame for poor management reports. Accountants should proactively study the manager's decision-making responsibilities and provide the information that is most useful, presented in the most easily digestible manner.

In designing the chart of accounts, the accountant should keep in mind the type of information needed for management reports. To exercise control, managers need much more detail than what's reported on tax returns and external financial statements. And as I explain in Chapter 9, expenses should be regrouped into different categories for management decision-making analysis. A good chart of accounts looks to both the external and the internal (management) needs for information.



So what's the answer for a manager who receives poorly formatted reports? Demand a report format that suits your needs! See Chapter 9 for a useful profit analysis model, and show it to your accountant as well.

Double-Entry Accounting for Single-Entry Folks

Businesses and nonprofit entities use *double-entry accounting*. But I've never met an individual who uses double-entry accounting in personal bookkeeping. Instead, individuals use single-entry accounting. For example, when you write a check to make a payment on your credit card balance, you undoubtedly make an entry in your checkbook to decrease your bank balance. And that's it. You make just one entry — to decrease your checking account balance. It wouldn't occur to you to make a second, companion entry to decrease your credit card liability balance. Why? Because you don't keep a liability account for what you owe on your credit card. You depend on the credit card company to make an entry to decrease your balance.



Businesses and nonprofit entities have to keep track of their liabilities as well as their assets. And they have to keep track of *all* sources of their assets. (Some part of their total assets comes from money invested by their owners, for example.) When a business writes a check to pay one of its liabilities, it makes a two-sided (or double) entry — one to decrease its cash balance and the second to decrease the liability. This is double-entry accounting in action. Double-entry does *not* mean a transaction is recorded twice; it means both sides of the transaction are recorded at the same time.



Double-entry accounting pivots off the accounting equation:

$$\text{Total assets} = \text{Total liabilities} + \text{Total owners' equity}$$

The accounting equation is a very condensed version of the balance sheet. The balance sheet is the financial statement that summarizes a business's assets on the one side and its liabilities plus its owners' equity on the other side. Liabilities and owners' equity are the sources of its assets. Each source has different claims on the assets, which I explain in Chapter 5.

One main function of the bookkeeping/accounting system is to record all transactions of a business — every single last one. If you look at transactions through the lens of the accounting equation, there is a beautiful symmetry in transactions (well, beautiful to accountants at least). All transactions have a

natural balance. The sum of financial effects on one side of a transaction equals the sum of financial effects on the other side.

Suppose a business buys a new delivery truck for \$65,000 and pays by check. The truck asset account increases by the \$65,000 cost of the truck, and cash decreases \$65,000. Here's another example: A company borrows \$2 million from its bank. Its cash increases \$2 million, and the liability for its note payable to the bank increases the same amount.

Just one more example: Suppose a business suffers a loss from a tornado because some of its assets were not insured (dumb!). The assets destroyed by the tornado are written off (decreased to zero balances), and the amount of the loss decreases owners' equity the same amount. The loss works its way through the income statement but ends up as a decrease in owners' equity.



Virtually all business bookkeeping systems use *debits and credits* for making sure that both sides of transactions are recorded and for keeping the two sides of the accounting equation in balance. A change in an account is recorded as either a debit or a credit according to the following rules:

Assets	=	Liabilities	+	Owners' Equity
+ Debit		+ Credit		+ Credit
– Credit		– Debit		– Debit

An increase in an asset is tagged as a debit; an increase in a liability or owners' equity account is tagged as a credit. Decreases are just the reverse. Following this scheme, the total of debits must equal the total of credits in recording every transaction. In brief: *Debits have to equal credits*. Isn't that clever? Well, the main point is that the method works. Debits and credits have been used for centuries. (A book published in 1494 described how business traders and merchants of the day used debits and credits in their bookkeeping.)

Note: Sales revenue and expense accounts also follow debit and credit rules. Revenue increases owners' equity (thus is a credit), and an expense decreases owners' equity (thus is a debit).

The *balance* in an account at a point in time equals the increases less the decreases recorded in the account. Following the rules of debits and credits, asset accounts have debit balances, and liabilities and owners' equity accounts have credit balances. (Yes, a balance sheet account can have a wrong-way balance in unusual situations, such as cash having a credit balance because the business has written more checks than it has in its

checking account.) The total of accounts with debit balances should equal the total of accounts with credit balances. When the total of debit balance accounts equals the total of credit balance accounts, the *books are in balance*.



Balanced books don't necessarily mean that all accounts have correct balances. Errors are still possible. The bookkeeper may have recorded debits or credits in wrong accounts, or may have entered wrong amounts, or may have missed recording some transactions altogether. Having balanced books simply means that the total of accounts with debit balances equals the total of accounts with credit balances. The important thing is whether the books (the accounts) have *correct* balances, which depends on whether all transactions and other developments have been recorded correctly.

Juggling the Books to Conceal Embezzlement and Fraud



Fraud and illegal practices occur in large corporations and in one-owner/manager-controlled small businesses — and in every size business in between. Some types of fraud are more common in small businesses, including *sales skimming* (not recording all sales revenue, to deflate the taxable income of the business and its owner) and the recording of personal expenses through the business (to make these expenses deductible for income tax). Some kinds of fraud are committed mainly by large businesses, including paying bribes to public officials and entering into illegal conspiracies to fix prices or divide the market. The purchasing managers in any size business can be tempted to accept kickbacks and under-the-table payoffs from vendors and suppliers.

Some years ago we hosted a Russian professor who was a dedicated Communist. I asked him what surprised him the most on his first visit to the United States. Without hesitation he answered “*The Wall Street Journal*.” I was puzzled. He then explained that he was amazed to read so many stories about business fraud and illegal practices in the most respected financial newspaper in the world. At the time of revising this chapter, the backdating of management stock options is very much in the news. Many financial reporting fraud stories are on the front pages. And there are a number of stories of companies that agreed to pay large fines for illegal practices (usually without admitting guilt).

A gray area in financial reporting

In some situations, the same person or the same group of investors controls two or more businesses. Revenue and expenses can be arbitrarily shifted among the different business entities under common control. For one person to have a controlling ownership interest in two or more businesses is perfectly legal, and such an arrangement often makes good business sense. For example, a retail business rents a building from a real estate business, and the same person is the majority owner of both businesses. The problem arises when that person arbitrarily sets the monthly rent to shift profit between the two businesses; a high rent generates more profit for the real estate business and lower profit for the retail business. This kind

of maneuver may be legal, but it raises a touchy accounting issue.

Readers of financial statements are entitled to assume that all activities between the business and the other parties it deals with are based on what's called *arm's-length bargaining*, meaning that the business and the other parties have a purely business relationship. When that's not the case, the financial report should — but usually doesn't — use the term *related parties* to describe persons and organizations that are not at arm's length with the business. According to financial reporting standards, a business should disclose any substantial related-party transactions in its external financial statements.

I'm fairly sure that none of this is news to you. You know that fraud and illegal practices happen in the business world. My point in bringing up this unpleasant topic is that fraud and illegal practices require manipulation of a business's accounts. For example, if a business pays a bribe it does not record the amount in a bald-faced account called "bribery expense." Rather the business disguises the payment by recording it in a legitimate expense account (such as repairs and maintenance expense, or legal expense). If a business records sales revenue before sales have taken place (a not uncommon type of fraud), it does not record the false revenue in a separate account called "fictional sales revenue." The bogus sales are recorded in the regular sales revenue account.

Here's another example of an illegal practice. *Money laundering* involves taking money from illegal sources (such as drug dealing) and passing it through a business to make it look legitimate — to give the money a false identity. This money can hardly be recorded as "revenue from drug sales" in the accounts of the business. If an employee embezzles money from the business, he has to cover his tracks by making false entries in the accounts or by not making entries that should be recorded.



Manipulating accounts to conceal fraud, illegal activities, and embezzlement is generally called *juggling the accounts*. Another term you probably have heard is *cooking the books*. Although this term is sometimes used in the same sense of juggling the accounts, the term cooking the books more often refers to deliberate accounting fraud, in which the main purpose is to produce financial statements that tell a better story than are supported by the facts.



When the accounts have been juggled or the books have been cooked, the financial statements of the business are distorted, incorrect, and misleading. Lenders, other creditors, and the owners who have capital invested in the business rely on the company's financial statements. Also, a business's managers and board of directors (the group of people who oversee a business corporation) may be misled — assuming that they're not a party to the fraud, of course — and may also have liability to third-party creditors and investors for their failure to catch the fraud. Creditors and investors who end up suffering losses have legal grounds to sue the managers and directors (and perhaps the independent auditors who did not catch the fraud) for damages suffered.

I think that most persons who engage in fraud cheat on their federal income taxes; they don't declare the ill-gotten income. Needless to say, the IRS is on constant alert for fraud in federal income tax returns, both business and personal returns. The IRS has the authority to come in and audit the books of the business and also the personal income tax returns of its managers and investors. Conviction for income tax evasion is a felony, I might point out.

Using Accounting Software

It would be possible, though not very likely, that a very small business would keep its books the old-fashioned way — record all transactions and do all the other steps of the bookkeeping cycle with pen and paper and by making handwritten entries. However, even a small business has a relatively large number of transactions that have to be recorded in journals and accounts, to say nothing about the end-of-period steps in the bookkeeping cycle (refer to Figure 3-1).

When mainframe computers were introduced in the 1950s and 1960s, one of their very first uses was for accounting chores. However, only large businesses could afford these electronic behemoths. Smaller businesses didn't use computers for their accounting until some years after personal computers came along in the 1980s. But, as the saying goes, "We've come a long way, baby." A bewildering array of accounting computer software packages is available today.



There are accounting software packages for every size business, from small (say, \$5 million annual sales or less and 20 employees or less) to very large (\$500 million annual sales and up and 500 employees or more). Developing and marketing accounting software is a booming business. You could go to Google or Yahoo and type “accounting software” in the search field, but be prepared for many, many references. Except for larger entities that employ their own accounting software and information technology experts, most businesses need the advice and help of outside consultants in choosing, implementing, upgrading, and replacing accounting software.

If I were giving a talk to owners/managers of small to middle-size businesses, I would offer the following words of wisdom about accounting software:

- ✔ Choose your accounting software very carefully. It’s very hard to pull up stakes and switch to another software package. Changing even just one module in your accounting software can be difficult.
- ✔ In evaluating accounting software, you and your accountant should consider three main factors: ease of use; whether it has the particular features and functionality you need; and the likelihood that the vendor will continue in business and be around to update and make improvements in the software.
- ✔ In real estate, the prime concern is “location, location, location.” The watchwords in accounting software are “security, security, security.” You need very tight controls over all aspects of using the accounting software and who is authorized to make changes in any of the modules of the accounting software.
- ✔ Although accounting software offers the opportunity to exploit your accounting information (mine the data), you have to know exactly what to look for. The software does not do this automatically. You have to ask for the exact type of information you want and insist that it be pulled out of the accounting data.
- ✔ Even when using advanced, sophisticated accounting software, a business has to design the specialized reports it needs for its various managers and make sure that these reports are generated correctly from the accounting database.
- ✔ Never forget the “garbage in, garbage out” rule. Data entry errors can be a serious problem in computer-based accounting systems. You can minimize these input errors, but it is next to impossible to eliminate them altogether. Even barcode readers make mistakes, and the barcode tags themselves may have been tampered with. Strong internal controls for the verification of data entry are extremely important.

- ✔ Make sure your accounting software leaves very good audit trails, which you need for management control, for your CPA when auditing your financial statements, and for the IRS when it decides to audit your income tax returns. The lack of good audit trails looks very suspicious to the IRS.
- ✔ Online accounting systems that permit remote input and access over the Internet or a local area network with multiple users present special security problems. Think twice before putting your accounting system online.

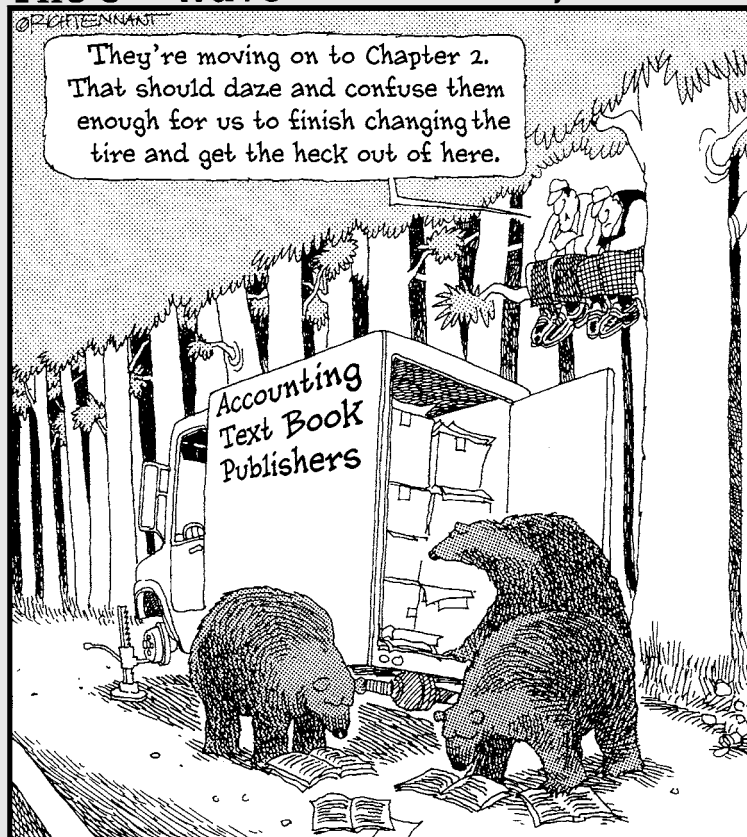
Smaller businesses, and even many medium-size businesses, don't have the budget to hire full-time information system and information technology specialists. They use consultants to help them select accounting software packages, install software, and get it up and running. Like other computer software, accounting programs are frequently revised and updated. A consultant can help keep a business's accounting software up-to-date, correct flaws and security weaknesses in the program, and take advantage of its latest features.

Part II

Figuring Out Financial Statements

The 5th Wave

By Rich Tennant



In this part . . .

Financially speaking, managers, owners, and lenders want to know three basic things about a business: its profit or loss, its financial condition, and its cash flows. Accountants answer this call for information by preparing on a regular basis three financial statements, which are detailed in this part.

The *income statement* summarizes the profit-making activities of the business and its bottom-line profit or loss for the period. The *balance sheet* reports the financial position of the business at a point in time — usually the last day of the profit period. The *statement of cash flows* reports the amount of cash generated from profit and other sources of cash during the period, and what the business did with this money. Its financial statements tell the financial story of the business, for good or bad.

One word of caution: The numbers you see in its financial statements depend, to a significant extent, on which accounting methods the business chooses. Businesses have more accounting alternatives than you may think. In painting the financial picture of a business, the accountant can use somber or vivid colors from the palette of acceptable accounting methods.

Chapter 4

Reporting Revenue, Expenses, and the Bottom Line

In This Chapter

- ▶ Taking a look at a typical income statement
 - ▶ Getting inquisitive about the income statement
 - ▶ Becoming more intimate with assets and liabilities
 - ▶ Handling unusual gains and losses in the income statement
-

In this chapter, I lift up the hood and explain how the profit engine runs. Making a profit is the main financial goal of a business. (Not-for-profit organizations and government entities don't aim to make profit, but they should at least avoid a deficit.) Accountants are the designated financial scorekeepers in the business world. Accountants are professional profit-measurers. I find profit accounting a fascinating challenge. For one thing, you have to understand how a business operates and its strategies in order to account for its profit.

Making a profit and accounting for it aren't nearly as simple as you may think. Managers have the demanding tasks of making sales and controlling expenses, and accountants have the tough tasks of measuring revenue and expenses and preparing reports that summarize the profit-making activities. Also, accountants are called on to help business managers analyze profit for decision-making, which I explain in Chapter 9. And accountants prepare profit budgets for managers, which I cover in Chapter 10.

This chapter focuses on the financial consequences of making profit and how profit activities are reported in a business's external financial reports to its owners and lenders. In the United States, generally accepted accounting principles (GAAP) govern the recording and reporting of profit; see Chapter 2 for details about GAAP.

Presenting a Typical Income Statement

At the risk of oversimplification, I would say that businesses make profit three basic ways:

- ✓ Selling *products* (with allied services) and controlling the cost of the products sold and other operating costs
- ✓ Selling *services* and controlling the cost of providing the services and other operating costs
- ✓ *Investing* in assets that generate investment income and market value gains and controlling operating costs

Obviously, this list isn't exhaustive, but it captures a large slice of business activity. In this chapter, I concentrate on the first category of activity: selling products. Products range from automobiles to computers to food to clothes to jewelry. The customers of a business may be the final consumers in the economic chain, or a business may sell to other businesses.

Figure 4-1 presents a typical profit report for a product-oriented business; this report, called the *income statement*, would be sent to its outside owners and lenders. The report could just as easily be called the *net income statement* because the bottom-line profit term preferred by accountants is *net income*, but the word *net* is dropped off the title. Alternative titles for the external profit report include *earnings statement*, *operating statement*, *statement of operating results*, and *statement of earnings*. (Note that profit reports distributed to managers inside a business are usually called *P&L* [profit and loss] statements, but this moniker is not used in external financial reporting.)

Typical Business, Inc. Income Statement For Year Ended December 31, 2009	
Sales revenue	\$26,000,000
Cost of goods sold expense	\$14,300,000
Gross margin	\$11,700,000
Selling, general, and administrative expenses	\$8,700,000
Operating earnings	\$3,000,000
Interest expense	\$400,000
Earnings before income tax	\$2,600,000
Income tax expense	\$910,000
Net income	\$1,690,000

Figure 4-1:
A typical income statement for a business that sells products.

The heading of an income statement identifies the business (which in this example is incorporated — thus the term “Inc.” following the name), the financial statement title (“Income Statement”), and the time period summarized by the statement (“Year Ended December 31, 2009”). I explain the legal organization structures of businesses in Chapter 8.

You may be tempted to start reading an income statement at the bottom line. But this financial report is designed for you to read from the top line (sales revenue) and proceed down to the last — the bottom line (net income). Each step down the ladder in an income statement involves the deduction of an expense. In Figure 4-1, four expenses are deducted from the sales revenue amount, and four profit lines are given: gross margin; operating earnings; earnings before income tax; and, finally, net income.



TIP

If a business sells services and does not sell products, it does not have a cost of goods sold expense; therefore, the company does not show a gross margin line. On the other hand, some service-based businesses disclose a “cost of sales expense” that is analogous to the cost of goods sold expense reported by product-based companies, in which case a gross margin line is reported. I should caution you that you find many variations on the basic income statement example I show in Figure 4-1. In particular, a business has a fair amount of latitude regarding the number of expense lines to disclose in its external income statement.



REMEMBER

I can’t stress enough that the dollar amounts you see in an income statement are *flow amounts*, or cumulative measures of activities during a period of time (one year in Figure 4-1). To illustrate, suppose that the average sale of the business in the example is \$2,600. Therefore, the business made 10,000 sales and recorded 10,000 sales transactions over the course of the year (\$2,600 per sale \times 10,000 sale transactions = \$26 million). The sales revenue amount (see Figure 4-1) is the cumulative total of all sales made from January 1 through December 31. Likewise for the expenses: For example, the cost of goods sold expense is the cost of all products sold to customers in the 10,000 sales transactions during the year, and the interest expense is the total of all interest transactions recorded during the year.

Taking care of some housekeeping details

I want to point out a few things about income statements that accountants assume everyone knows but, in fact, are not obvious to many people. (Accountants do this a lot: They assume that the people using financial statements know a good deal about the customs and conventions of financial reporting, so they don’t make things as clear as they could.) For an accountant, the following facts are second-nature:

- ✔ **Minus signs are missing.** Expenses are deductions from sales revenue, but hardly ever do you see minus signs in front of expense amounts to indicate that they are deductions. Forget about minus signs in income statements, and in other financial statements as well. Sometimes parentheses are put around a deduction to signal that it's a negative number, but that's the most you can expect to see.
- ✔ **Your eye is drawn to the bottom line.** Putting a double underline under the final (bottom-line) profit number for emphasis is common practice but not universal. Instead, net income may be shown in bold type. You generally don't see anything as garish as a fat arrow pointing to the profit number or a big smiley encircling the profit number — but again, tastes vary.
- ✔ **Profit isn't usually called *profit*.** As you see in Figure 4-1, bottom-line profit is called *net income*. Businesses use other terms as well, such as *net earnings* or just *earnings*. (Can't accountants agree on anything?) In this book, I use the terms *net income* and *profit* interchangeably.
- ✔ **You don't get details about sales revenue.** The sales revenue amount in an income statement is the combined total of all sales during the year; you can't tell how many different sales were made, how many different customers the company sold products to, or how the sales were distributed over the 12 months of the year. (Public companies are required to release quarterly income statements during the year, and they include a special summary of quarter-by-quarter results in their annual financial reports; private businesses may or may not release quarterly sales data.) Sales revenue does not include sales and excise taxes that the business collects from its customers and remits to the government.

Note: In addition to sales revenue from selling products and/or services, a business may have income from other sources. For instance, a business may have earnings from investments in marketable securities. In its income statement, investment income goes on a separate line and is not commingled with sales revenue. (The business featured in Figure 4-1 does not have investment income.)
- ✔ **Gross margin matters.** The *cost of goods sold* expense is the cost of products sold to customers, the sales revenue of which is reported on the *sales revenue* line. The idea is to match up the sales revenue of goods sold with the cost of goods sold and show the *gross margin* (also called *gross profit*), which is the profit before other expenses are deducted. The other expenses could in total be more than gross margin, in which case the business would have a loss for the period.

Note: Companies that sell services rather than products (such as airlines, movie theaters, and CPA firms) do not have a cost of goods sold expense line in their income statements, although as I mention above, some service companies report a cost of sales expense and a corresponding gross margin line.

✔ **Operating costs are lumped together.** The broad category *selling, general, and administrative expenses* (refer to Figure 4-1) consists of a wide variety of costs of operating the business and making sales. Some examples are:

- Labor costs (wages, salaries, and benefits paid to employees)
- Insurance premiums
- Property taxes on buildings and land
- Cost of gas and electric utilities
- Travel and entertainment costs
- Telephone and Internet charges
- Depreciation of operating assets that are used more than one year (including buildings, land improvements, cars and trucks, computers, office furniture, tools and machinery, and shelving)
- Advertising and sales promotion expenditures
- Legal and audit costs

As with sales revenue, you don't get much detail about operating expenses in a typical income statement.

Your job: Asking questions!

The worst thing you can do when presented with an income statement is to be a passive reader. You should be inquisitive. An income statement is not fulfilling its purpose unless you grab it by its numbers and start asking questions.



For example, you should be curious regarding the size of the business (see the nearby sidebar “How big is a big business, and how small is a small business?”). Another question to ask is: How does profit compare with sales revenue for the year? Profit (net income) equals what's left over from sales revenue after you deduct all expenses. The business featured in Figure 4-1 squeezed \$1.69 million profit from its \$26 million sales revenue for the year, which equals 6.5 percent. This ratio of profit to sales revenue means expenses absorbed 93.5 percent of sales revenue. Although it may seem rather thin, a 6.5 percent profit margin on sales is quite acceptable for many businesses. (Some businesses consistently make a bottom-line profit of 10 to 20 percent of sales, and others are satisfied with a 1 or 2 percent profit margin on sales revenue.) Profit ratios on sales vary widely from industry to industry.

How big is a big business and how small is a small business?

One key measure of the size of a business is the number of employees it has on its payroll. Could the business shown in Figure 4-1 have 500 employees? Probably not. This would mean that the annual sales revenue per employee would be only \$52,000 (\$26 million annual sales revenue divided by 500 employees). The average annual wage per employee would have to be less than half the sales revenue per employee in order to leave enough sales revenue after labor cost to cover the cost of goods sold and other expenses. The average annual wage of employees in many industries today is over \$35,000, and much higher in some industries. Much more likely, the number of full-time employees in this business is closer to 100. This number of employees yields \$260,000 sales revenue per employee, which means that the business could probably afford an average annual wage of \$40,000 per employee, or higher.

Public companies generally report their numbers of employees in their annual financial

reports, but private businesses generally do not. U.S. GAAP do not require that the total number and total wages and salaries of employees be reported in the external financial statements of a business, or in the footnotes to the financial statements.

The definition of a “small business” is not uniform. Generally the term refers to a business with less than 100 full-time employees, but in some situations, it refers to businesses with less than 20 employees. Even 20 employees earning, say, only \$25,000 annual wages per person (a very low amount) require a \$500,000 annual payroll before employee benefits (such as Social Security taxes) are figured in. Most businesses have to have sales at least equal to two or three times their basic payroll expense. Therefore, a 20-employee business paying minimum wages would need more than \$1 million annual sales revenue.



GAAP are relatively silent regarding which expenses have to be disclosed on the face of an income statement or elsewhere in a financial report. For example, the amount a business spends on advertising does not have to be disclosed. (In contrast, the rules for filing financial reports with the Securities and Exchange Commission [SEC] require disclosure of certain expenses, such as repairs and maintenance expenses. Keep in mind that the SEC rules apply only to public businesses.)

In the example shown in Figure 4-1, expenses such as labor costs and advertising expenditures are buried in the all-inclusive *selling, general, and administrative expenses* line. (If the business manufactures the products it sells instead of buying them from another business, a good part of its annual labor

cost is included in its *cost of goods sold* expense line.) Some companies disclose specific expenses such as advertising and marketing costs, research and development costs, and other significant expenses. In short, income statement expense disclosure practices vary considerably from business to business.

Another set of questions you should ask in reading an income statement concern the *profit performance* of the business. Refer again to the company's profit performance report (refer to Figure 4-1). Profit-wise, how did the business do? Underneath this question is the implicit question: relative to what? Generally speaking, three sorts of benchmarks are used for evaluating profit performance:

- ✓ Comparisons with broad, industry-wide performance averages
- ✓ Comparisons with immediate competitors' performances
- ✓ Comparisons with the business's performance in recent years

Chapter 13 explains the analysis of profit performance and key ratios that are computed for this purpose.

The P word

I'm sure you won't be surprised to hear that the financial objective of every business is to make an adequate profit on a sustainable basis. In the pursuit of profit, a business should behave ethically, stay within the law, care for its employees, and be friendly to the environment. I don't mean to preach here. But the blunt truth of the matter is that *profit* is a dirty word to many people, and the profit motive is a favorite target of many critics who blame it for unsafe working conditions, exploitation of child labor, wages that are below the poverty line, and other ills of the economic system. The profit motive is an easy target for criticism.

You hear a lot about the profit motive of business, but you hardly ever see the *P word* in external financial reports. In the financial press, the most

common term you see instead is *earnings*. Both *The Wall Street Journal* and *The New York Times* cover the profit performance of public corporations and use the term *earnings reports*. If you look in financial statements, the term *net income* is used most often for the bottom-line profit that a business earns. Accountants prefer *net income*, although they also use other names, like *net earnings* and *net operating earnings*.

In short, *profit* is more of a street name; in polite company, you generally say *net income*. However, I must point out one exception. I have followed the financial reports of Caterpillar, Inc., for many years. Caterpillar uses the term *profit* for the bottom line of its income statement; it's one of the few companies that call a spade a spade.

Finding Profit

As I say in the previous section, when reading an income statement your job is asking pertinent questions. Here's an important question: What happened to the business's financial condition as the result of earning \$1.69 million net income for the year (refer to Figure 4-1)? The financial condition of a business consists of its assets on the one side and its liabilities and owners' equity on the other side. (The financial condition of a business at a point in time is reported in its *balance sheet*, which I discuss in detail in Chapter 5.)

To phrase the question a little differently: How did the company's assets, liabilities, and owners' equity change during the year as the result of its revenue and expense transactions that yielded \$1.69 million profit? You can't record revenue without increasing a particular asset (or decreasing a particular liability in some cases). And you can't record an expense without decreasing a particular asset or increasing a particular liability. Revenue and expenses are not ephemeral things, like smoke blowing in the wind. These two components of profit cause real changes in assets and liabilities.

When you see the sales revenue in Figure 4-1, you should be thinking that there was \$26 million inflow of assets during the year. (In the example, no liabilities are involved in recording sales.) The company's total expenses for the year were \$24.31 million (\$26 million sales revenue minus \$1.69 million net income). Expenses decrease assets or increase liabilities. Therefore, you should be thinking that there was an outflow of assets during the year and probably a run-up of liabilities for a combined total of \$24.31 million. In short, sales and expenses cause considerable changes in assets and liabilities. Usually these changes are rumbles, but they can cause a seismic event on occasion.



The question can be answered in terms of the *accounting equation*: a very condensed version of the balance sheet. A useful version of the accounting equation is the following, in which owners' equity is divided between invested capital and retained earnings:

$$\text{Assets} = \text{Liabilities} + \frac{\text{Owners' equity}}{\text{Invested capital} + \text{Retained earnings}}$$

The owners' equity of a business increases for two quite different reasons: The owners invest money in the business, and the business makes a profit. Naturally, a business keeps two types of accounts for owners' equity: one for invested capital and one for retained profit, or *retained earnings* (as it is generally called). The term *retained* is used because in most situations some or all of annual profit is not distributed to owners but is retained in the business. Unfortunately, the retained earnings account sounds like an asset in the minds of many people. It is not! It is a source-of-assets account, not an asset account. It's on the right-hand side of the accounting equation; assets are on the left side. See the "So why is it called retained earnings?" sidebar for more information.



So why is it called retained earnings?

The ending balance reported in the retained earnings account is the amount after recording increases and decreases in the account during the period, starting with the opening balance at the start of the period, of course. The retained earnings account increases when the business makes a profit and decreases when the business distributes some of the profit to its owners. That is, the total amount of profit paid out to the owners is recorded as a decrease in the retained earnings account. (Exactly how the profit is divided among the owners depends on the ownership structure of the business; see Chapter 8.)

Bonus question: Why doesn't a business pay out all its annual profit to owners? One reason is

that the business may not have converted all its profit into cash by the end of the year and may not have enough cash to distribute all the profit to the owners. Or the business may have had the cash but needed it for other purposes, such as growing the company by buying new buildings and equipment or spending the money on research and development of new products. Reinvesting the profit in the business in this way is often referred to as *plowing back* earnings. A business should always make good use of its cash flow instead of letting the cash pile up in the cash account. See Chapter 6 for more on cash flow from profit.

The business in the Figure 4-1 example earned \$1.69 million profit for the year. Therefore, its retained earnings account increased this amount, because the bottom-line amount of net income for the period is recorded in this account. We know this for sure. But what we can't tell from the income statement is how the assets and liabilities of the business were affected by its sale and expense activities during the period. One possible scenario is the following (in thousands of dollars):

$$\begin{array}{r} \text{Assets} = \text{Liabilities} + \frac{\text{Owners' equity}}{\text{Invested capital} + \text{Retained earnings}} \\ + \$1,990 = \quad + \$300 \qquad \qquad \qquad + \$1,690 \end{array}$$

This scenario works because the sum of the right-hand-side changes (\$300,000 increase in liabilities plus \$1.69 million increase in retained earnings) equals the \$1.99 million increase in assets.



The “financial shift” in assets and liabilities from profit-making activities is especially important for business managers to understand and pay attention to, because they have to manage and control the changes. It would be dangerous simply to assume that making a profit has only beneficial effects on assets and liabilities. One of the main purposes of the statement of cash flows, which I discuss in Chapter 6, is to summarize the financial changes caused by the profit activities of the business during the year.

To summarize, the company's \$1.69 million net income resulted in some combination of changes in its assets and liabilities, such that its owners' equity (specifically, its retained earnings) increased \$1.69 million. One such scenario is given just above. In fact, this is what happened in the business example, which I summarize later in the chapter (see the section "Summing Up the Financial Effects of Profit").

Getting Particular about Assets and Liabilities

The sales and expense activities of a business involve inflows and outflows of cash, as I'm sure you know. What you may not know, however, is that the profit-making process also involves four other basic operating assets and three basic types of operating liabilities. Each of the following sections explains one of these operating assets and liabilities. This gives you a more realistic picture of what's involved in making profit.

Making sales on credit → Accounts receivable asset

Many businesses allow their customers to buy their products or services on credit. They use an asset account called *accounts receivable* to record the total amount owed to the business by its customers who have made purchases "on the cuff" and haven't paid yet. In most cases, a business doesn't collect all its receivables by the end of the year, especially for credit sales that occur in the last weeks of the year. It records the sales revenue and the cost of goods sold expense for these sales as soon as a sale is completed and products are delivered to the customers. This is one feature of the *accrual basis of accounting*, which records revenue when sales are made and records expenses when these costs are incurred. When sales are made on credit, the accounts receivable asset account is increased; later, when cash is received from the customer, cash is increased and the accounts receivable account is decreased. Collecting the cash is the follow-up transaction trailing along after the sale is recorded.



The balance of accounts receivable at the end of the year is the amount of sales revenue that has not yet been converted into cash. Accounts receivable represents cash waiting in the wings to be collected in the near future (assuming that all customers pay their accounts owed to the business on time). Until the money is actually received, the business is without the cash inflow.

Selling products → *Inventory asset*

The *cost of goods sold* is one of the primary expenses of businesses that sell products. (In Figure 4-1, notice that this expense is equal to more than half the sales revenue for the year.) This expense is just what its name implies: the cost that a business pays for the products it sells to customers. A business makes profit by setting its sales prices high enough to cover the actual costs of products sold, the costs of operating the business, interest on borrowed money, and income taxes (assuming that the business pays income tax), with something left over for profit.

When the business acquires a product, the cost of the product goes into an *inventory asset* account (and, of course, the cost is either deducted from the cash account or added to the accounts payable liability account, depending on whether the business pays with cash or buys on credit). When a customer buys that product, the business transfers the cost of the product from the inventory asset account to the *cost of goods sold* expense account because the product is no longer in the business's inventory; the product has been delivered to the customer.

The first step in the income statement is deducting the cost of goods sold expense from the sales revenue for the goods sold. Almost all businesses that sell products report the cost of goods sold as a separate expense in their income statements, as you see in Figure 4-1.



A business that sells products needs to have a stock of those products on hand to sell to its customers. This stockpile of goods on the shelves (or in storage space in the backroom) waiting to be sold is called *inventory*. When you drive by an auto dealer and see all the cars, SUVs, and pickup trucks waiting to be sold, remember that these products are inventory. The cost of unsold products (goods held in inventory) is not yet an expense; only after the products are actually sold does the cost get listed as an expense. In this way, the cost of goods sold expense is correctly matched against the sales revenue from the goods sold. Correctly matching expenses against sales revenue is the essence of accounting for profit.

Prepaying operating costs → *Prepaid expense asset*

Prepaid expenses are the opposite of unpaid expenses. For example, a business buys fire insurance and general liability insurance (in case a customer who slips on a wet floor or is insulted by a careless salesperson sues the business). Insurance premiums must be paid ahead of time, before coverage

starts. The premium cost is allocated to expense in the actual period benefited. At the end of the year, the business may be only halfway through the insurance coverage period, so it charges off only half the premium cost as an expense. (For a six-month policy, you charge one-sixth of the premium cost to each of the six months covered.) So at the time the premium is paid, the entire amount is recorded in the prepaid expenses asset account, and for each month of coverage, the appropriate fraction of the cost is transferred to the insurance expense account.

Another example of something initially put in the prepaid expenses asset account is when a business pays cash to stock up on office supplies that it may not use for several months. The cost is recorded in the prepaid expenses asset account at the time of purchase; when the supplies are used, the appropriate amount is subtracted from the prepaid expenses asset account and recorded in the office supplies expense account.

Using the prepaid expenses asset account is not so much for the purpose of reporting all the assets of a business, because the balance in the account compared with other assets and total assets is typically small. Rather, using this account is an example of allocating costs to expenses in the period benefited by the costs, which isn't always the same period in which the business pays those costs. The prepayment of these expenses lays the groundwork for continuing operations seamlessly into the next year.

Fixed assets → Depreciation expense

Long-term operating assets that are not held for sale in the ordinary course of business are called *fixed assets*; these include buildings, machinery, office equipment, vehicles, computers and data-processing equipment, shelving and cabinets, and so on. *Depreciation* refers to spreading out the cost of a fixed asset over the years of its useful life to a business, instead of charging the entire cost to expense in the year of purchase. That way, each year of use bears a share of the total cost. For example, autos and light trucks are typically depreciated over five years; the idea is to charge a fraction of the total cost to depreciation expense during each of the five years. (The actual fraction each year depends on which method of depreciation used, which I explain in Chapter 7.)



Of course, depreciation applies only to fixed assets that you buy, not those you rent or lease. (If you lease or rent fixed assets, which is quite common, the rent you pay each month is charged to *rent expense*.) Depreciation is a real expense but not a cash outlay expense in the year it is recorded. The cash outlay occurs when the fixed asset is acquired. See “The positive impact of depreciation on cash flow” sidebar for more information.



The positive impact of depreciation on cash flow

Depreciation is good news for cash flow. This concept gets a little complex, so stay with me here. To start with, fixed assets wear out and lose their economic usefulness over time. Some fixed assets last many years, such as office furniture and buildings. Other fixed assets last just a few years, such as delivery trucks and computers. Accountants argue, quite logically, that the cost of a fixed asset should be spread out or allocated over its predicted useful life to the business. Depreciation methods are rather arbitrary, but any reasonable method is much better than the alternative of charging off the entire cost of a fixed asset in the year it is acquired.

A business has to pass the cost of its fixed assets through to its customers and recover the cost of its fixed assets through sales revenue. A good example to illustrate this critical point is a taxicab driver who owns his cab. He sets his fares high enough to pay for his time; to pay for

the insurance, license, gas, and oil; and to recover the cost of the cab. Included in each fare is a tiny fraction of the cost of the cab, which over the course of the year adds up to the depreciation expense that he passed on to his passengers and collected in fares. At the end of the year, he has collected a certain amount of money that pays him back for part of the cost of the cab.

In summary, fixed assets are gradually *liquidated*, or turned back into cash, each year. Part of sales revenue recovers some of the cost of fixed assets, which is why the decrease in the fixed assets account to record depreciation expense has the effect of increasing cash (assuming your sales revenue is collected in cash during the year). What the company does with this cash recovery is another matter. Sooner or later, you need to replace fixed assets to continue in business.

Take another look back at the business example in Figure 4-1. From the information supplied in its income statement, we don't know how much depreciation expense the business recorded in 2009. However, the footnotes to its financial statements reveal this amount. In 2009, the business recorded \$775,000 depreciation expense. Basically, this expense decreases the book value (the recorded value) of its fixed assets. Chapter 5 goes into more detail regarding how depreciation expense is recorded.

Unpaid expenses → Accounts payable, accrued expenses payable, and income tax payable

A typical business pays many expenses *after* the period in which the expenses are recorded. Following are some common examples:

- ✔ A business hires a law firm that does a lot of legal work during the year, but the company doesn't pay the bill until the following year.
- ✔ A business matches retirement contributions made by its employees but doesn't pay its share until the following year.
- ✔ A business has unpaid bills for telephone service, gas, electricity, and water that it used during the year.

Accountants use three different types of liability accounts to record a business's unpaid expenses:

- ✔ **Accounts payable:** This account is used for items that the business buys on credit and for which it receives an invoice (a bill). For example, your business receives an invoice from its lawyers for legal work done. As soon as you receive the invoice, you record in the accounts payable liability account the amount that you owe. Later, when you pay the invoice, you subtract that amount from the accounts payable account, and your cash goes down by the same amount.
- ✔ **Accrued expenses payable:** A business has to make estimates for several unpaid costs at the end of the year because it hasn't yet received invoices for them. Examples of accrued expenses include the following:
 - Unused vacation and sick days that employees carry over to the following year, which the business has to pay for in the coming year
 - Unpaid bonuses to salespeople
 - The cost of future repairs and part replacements on products that customers have bought and haven't yet returned for repair
 - The daily accumulation of interest on borrowed money that won't be paid until the end of the loan period

Without invoices to refer to, you have to examine your business operations carefully to determine which liabilities of this sort to record.

- ✔ **Income tax payable:** This account is used for income taxes that a business still owes to the IRS at the end of the year. The income tax expense for the year is the total amount based on the taxable income for the entire year. Your business may not pay 100 percent of its income tax expense during the year; it may owe a small fraction to the IRS at year's end. You record the unpaid amount in the income tax payable account.

Note: A business may be organized legally as a *pass-through tax entity* for income tax purposes, which means that it doesn't pay income tax itself but instead passes its taxable income on to its owners. Chapter 8 explains these types of business entities. The example I offer here is for a business that is an ordinary corporation that pays income tax.

Summing Up the Financial Effects of Profit



Business managers should understand not only how to make profit, but also the financial effects of making profit. Profit does not simply mean an increase in cash. Sales revenue and expenses affect several assets other than cash and operating liabilities. I realize that I make this point several times in this chapter, so forgive me if I seem to be harping. I simply want to drive home the importance of understanding this fact.

Making profit involves additional transactions that are closely allied with sales and expenses. These tightly connected transactions include the following:

- ✓ Collecting cash from customers for credit sales made to them, which takes place after recording the sales revenue
- ✓ Purchasing (or manufacturing) products that are put in inventory and held there until the products are sold sometime later, at which time the cost of products sold is charged to expense in order to match up with the revenue from the sale
- ✓ Paying certain costs in advance of when they are charged to expense
- ✓ Paying for products bought on credit and for other items that are not charged to expense until sometime after the purchase
- ✓ Paying for expenses that have been recorded sometime earlier
- ✓ Making payments to the government for income tax expense that has already been recorded

These *allied transactions* are the “before and after” of recording sales and expense transactions. The allied transactions are not reported as such in a financial statement. However, the allied transactions change assets and liabilities, and they definitely affect cash flow. I explain how the changes in assets and liabilities caused by the allied transactions affect cash flow in Chapter 6.

Figure 4-2 is a summary of the changes in assets and liabilities during the year that are caused by a company’s profit-making activities — including the sales and expense transactions (summarized in the income statement) and the allied transactions (which are not reported in a financial statement). This sort of summary is *not* usually prepared for business managers, nor is such a summary presented in external financial reports. But it is a useful way to sum up the financial consequences of making profit.

Typical Business Inc.
Summary of Changes in Assets and Liabilities
from Sales and Expenses and Allied Transactions
Through Year Ended December 31, 2009

		Assets			
		Cash	\$1,515,000		
		Receivables from credit sales	\$450,000		
Figure 4-2: Summary of changes in assets and liabilities from sales, expenses, and their allied transactions during the year.		Cost of unsold products in inventory	\$725,000		
		Amount of expenses paid in advance	\$75,000		
		Cost of fixed assets, net of depreciation	(\$775,000)		
		Change in total assets		\$1,990,000	
			Liabilities		
		Payables for products and things bought on credit	\$125,000		
	Unpaid expenses	\$150,000			
	Income tax payable	\$25,000			
	Change in liabilities			\$300,000	
	Net income for year			\$1,690,000	

Note in Figure 4-2 that I use descriptive names for the assets and liabilities, instead of the formal account titles that you see in actual financial statements. You can refer to the formal account titles earlier in the chapter (see the section “Getting Particular about Assets and Liabilities”). When explaining the balance sheet in Chapter 5, I stick to the formal titles of the accounts.

Other transactions also change the assets, liabilities, and owners’ equity of a business, such as borrowing money and buying new fixed assets. These non-revenue and non-expense transactions are reported in the statement of cash flows, which I explain in Chapter 6.

Reporting Extraordinary Gains and Losses

I have a small confession to make: The income statement example shown in Figure 4-1 is a sanitized version as compared with actual income statements in external financial reports. If you took the trouble to read 100 income statements, you’d be surprised at the wide range of things you’d find in these statements. But I do know one thing for certain you would discover.

Many businesses report *unusual, extraordinary gains and losses* in addition to their usual revenue, income, and expenses. In these situations, the income statement is divided into two sections:

- ✓ The first section presents the *ordinary, continuing sales, income, and expense operations* of the business for the year.
- ✓ The second section presents any *unusual, extraordinary, and nonrecurring gains and losses* that the business recorded in the year.

The road to profit is anything but smooth and straight. Every business experiences an occasional *discontinuity* — a serious disruption that comes out of the blue, doesn't happen regularly or often, and can dramatically affect its bottom-line profit. In other words, a discontinuity is something that disturbs the basic continuity of its operations or the regular flow of profit-making activities.

Here are some examples of discontinuities:

- ✓ **Downsizing and restructuring the business:** Layoffs require severance pay or trigger early retirement costs; major segments of the business may be disposed of, causing large losses.
- ✓ **Abandoning product lines:** When you decide to discontinue selling a line of products, you lose at least some of the money that you paid for obtaining or manufacturing the products, either because you sell the products for less than you paid or because you just dump the products you can't sell.
- ✓ **Settling lawsuits and other legal actions:** Damages and fines that you pay — as well as awards that you *receive* in a favorable ruling — are obviously nonrecurring extraordinary losses or gains (unless you're in the habit of being taken to court every year).
- ✓ **Writing down (also called *writing off*) damaged and impaired assets:** If products become damaged and unsellable, or fixed assets need to be replaced unexpectedly, you need to remove these items from the assets accounts. Even when certain assets are in good physical condition, if they lose their ability to generate future sales or other benefits to the business, accounting rules say that the assets have to be taken off the books or at least written down to lower book values.
- ✓ **Changing accounting methods:** A business may decide to use a different method for recording revenue and expenses than it did in the past, in some cases because the accounting rules (set by the authoritative accounting governing bodies — see Chapter 2) have changed. Often, the new method requires a business to record a one-time cumulative effect caused by the switch in accounting method. These special items can be huge.

- ✔ **Correcting errors from previous financial reports:** If you or your accountant discovers that a past financial report had an accounting error, you make a catch-up correction entry, which means that you record a loss or gain that had nothing to do with your performance this year.

According to financial reporting standards (GAAP), which I explain in Chapter 2, a business must make these one-time losses and gains very visible in its income statement. So in addition to the main part of the income statement that reports normal profit activities, a business with unusual, extraordinary losses or gains must add a second layer to the income statement to disclose these out-of-the-ordinary happenings.

If a business has no unusual gains or losses in the year, its income statement ends with one bottom line, usually called *net income* (which is the situation shown in Figure 4-1). When an income statement includes a second layer, that line becomes *net income from continuing operations before unusual gains and losses*. Below this line, each significant, nonrecurring gain or loss appears.

Say that a business suffered a relatively minor loss from quitting a product line and a very large loss from adopting a new accounting standard. The second layer of the business's income statement would look something like the following:

Net income from continuing operations	\$267,000,000
Discontinued operations, net of income taxes	<u>(\$20,000,000)</u>
Earnings before cumulative effect of changes in accounting principles	\$247,000,000
Cumulative effect of changes in accounting principles, net of income taxes	<u>(\$456,000,000)</u>
Net earnings (loss)	(\$209,000,000)



The gains and losses reported in the second layer of an external income statement are generally complex and may be quite difficult to follow. So where does that leave you? In assessing the implications of extraordinary gains and losses, use the following questions as guidelines:

- ✔ Were the annual profits reported in prior years overstated?
- ✔ Why wasn't the loss or gain recorded on a more piecemeal and gradual year-by-year basis instead of as a one-time charge?
- ✔ Was the loss or gain really a surprising and sudden event that could not have been anticipated?
- ✔ Will such a loss or gain occur again in the future?



Every company that stays in business for more than a couple of years experiences a discontinuity of one sort or another. But beware of a business that takes advantage of discontinuities in the following ways:

- ✓ **Discontinuities become continuities:** This business makes an extraordinary loss or gain a regular feature on its income statement. Every year or so, the business loses a major lawsuit, abandons product lines, or restructures itself. It reports “nonrecurring” gains or losses from the same source on a recurring basis.
- ✓ **A discontinuity is used as an opportunity to record all sorts of write-downs and losses:** When recording an unusual loss (such as settling a lawsuit), the business opts to record other losses at the same time, and everything but the kitchen sink (and sometimes that, too) gets written off. This so-called *big-bath* strategy says that you may as well take a big bath now in order to avoid taking little showers in the future.

A business may just have bad (or good) luck regarding extraordinary events that its managers could not have predicted. If a business is facing a major, unavoidable expense this year, cleaning out all its expenses in the same year so it can start off fresh next year can be a clever, legitimate accounting tactic. But where do you draw the line between these accounting manipulations and fraud? All I can advise you to do is stay alert to these potential problems.

Closing Comments

The income statement occupies center stage; the bright spotlight is on this financial statement because it reports profit or loss for the period. But remember that a business reports three primary financial statements — the other two being the balance sheet and the statement of cash flows, which I discuss in the next two chapters. The three statements are like a three-ring circus. The income statement may draw the most attention, but you have to watch what’s going on in all three places. As important as profit is to the financial success of a business, the income statement is not an island unto itself.



Also, keep in mind that financial statements are supplemented with footnotes and contain other commentary from the business’s executives. If the financial statements have been audited, the CPA firm includes a short report stating whether the financial statements have been prepared in conformity with GAAP. Chapter 15 explains audits and the auditor’s report.

I don’t like closing this chapter on a sour note, but I must point out that an income statement you read and rely on — as a business manager, investor, or lender — may not be true and accurate. In most cases (I’ll even say in the large majority of cases), businesses prepare their financial statements in

good faith, and their profit accounting is honest. They may bend the rules a little, but basically their accounting methods are within the boundaries of GAAP even though the business puts a favorable spin on its profit number.



But some businesses resort to accounting fraud and deliberately distort their profit numbers. In this case, an income statement reports false and misleading sales revenue and/or expenses in order to make the bottom-line profit appear to be better than the facts would support. If the fraud is discovered at a later time, the business puts out revised financial statements. Basically, the business in this situation rewrites its profit history. I wish I could say that this doesn't happen very often, but the number of high-profile accounting fraud cases in recent years has been truly alarming. The CPA auditors of these companies did not catch the accounting fraud, even though this is one purpose of an audit. Investors who relied on the fraudulent income statements ended up suffering large losses.

Anytime I read a financial report, I keep in mind the risk that the financial statements may be “stage managed” to some extent — to make year-to-year reported profit look a little smoother and less erratic, and to make the financial condition of the business appear a little better. Regretfully, financial statements don't always tell it as it is. Rather, the chief executive and chief accountant of the business fiddle with the financial statements to some extent. I say much more about this tweaking of a business's financial statements in later chapters.

Chapter 5

Reporting Assets, Liabilities, and Owners' Equity

In This Chapter

- ▶ Identifying three basic types of business transactions
 - ▶ Classifying assets and liabilities
 - ▶ Connecting revenue and expenses with their assets and liabilities
 - ▶ Examining where businesses go for capital
 - ▶ Understanding balance sheet values
-

This chapter explores one of the three primary financial statements reported by businesses — the *balance sheet*, which is also called the *statement of financial condition* and the *statement of financial position*. This financial statement is a summary at a point in time of the assets of a business on the one hand, and the liabilities and owners' equity sources of the business on the other hand. It's a two-sided financial statement, which can be condensed in the *accounting equation*:

$$\text{Assets} = \text{Liabilities} + \text{Owners' equity}$$

The balance sheet may seem to stand alone — like an island to itself — because it's presented on a separate page in a financial report. But keep in mind that the assets and liabilities reported in a balance sheet are the results of the activities, or transactions, of the business. *Transactions* are economic exchanges between the business and the parties it deals with: customers, employees, vendors, government agencies, and sources of capital. Transactions are the stepping stones from the start-of-the year to the end-of-the-year financial condition.

Understanding That Transactions Drive the Balance Sheet



A balance sheet is a snapshot of the financial condition of a business at an instant in time — the most important moment in time being at the end of the last day of the income statement period. If you read Chapter 4, you'll notice that I continue using the same business example in this chapter. The *fiscal*, or accounting, year of the business ends on December 31. So its balance sheet is prepared at the close of business at midnight December 31. (A company should end its fiscal year at the close of its natural business year or at the close of a calendar quarter — September 30, for example.) This freeze-frame nature of a balance sheet may make it appear that a balance sheet is static. Nothing is further from the truth. A business does not shut down to prepare its balance sheet. The financial condition of a business is in constant motion because the activities of the business go on nonstop.

The activities, or transactions, of a business fall into three basic types:

- ✔ **Operating activities:** This category refers to making sales and incurring expenses, and also includes the allied transactions that are part and parcel of making sales and incurring expenses. For example, a business records sales revenue when sales are made on credit, and then, later, records cash collections from customers. Another example: A business purchases products that are placed in its inventory (its stock of products awaiting sale), at which time it records an entry for the purchase. The expense (the cost of goods sold) is not recorded until the products are actually sold to customers. Keep in mind that the term *operating activities* includes the allied transactions that precede or are subsequent to the recording of sales and expense transactions.
- ✔ **Investing activities:** This term refers to making investments in assets and (eventually) disposing of the assets when the business no longer needs them. The primary examples of investing activities for businesses that sell products and services are *capital expenditures*, which are the amounts spent to modernize, expand, and replace the long-term operating assets of a business.
- ✔ **Financing activities:** These activities include securing money from debt and equity sources of capital, returning capital to these sources, and making distributions from profit to owners. Note that distributing profit to owners is treated as a financing transaction, not as a separate category.

Wondering where to find these transactions in a financial report? See the sidebar “How transactions are reported in financial statements.”

How transactions are reported in financial statements

Sales revenue and expenses, as well as any gains or losses that are recorded in the period, are reported in the income statement. However, the total flows during the period of the allied transactions *connected* with sales and expenses are not reported. For example, the total of cash collections from customers from credit sales made to them is not reported. The net changes

in the assets and liabilities directly involved in operating activities are reported in the statement of cash flows (see Chapter 6). Financing and investing transactions are also found in the statement of cash flows. (Reporting the cash flows from investing and financing activities is one of the main purposes of the statement of cash flows.)

Figure 5-1 shows a summary of changes in assets, liabilities, and owners' equity during the year for the business example I introduce in Chapter 4. Notice the middle three columns in Figure 5-1, for each of the three basic types of activities of a business. One column is for changes caused by its revenue and expenses and their allied transactions during the year, which collectively are called *operating activities*. The second column is for changes caused by its investing activities during the year. The third column is for the changes caused by its financing activities.

Typical Business, Inc.
Statement of Changes in Assets, Liabilities, and Owners' Equity
for Year Ended December 31, 2009
(Dollar amounts in thousands)

	<u>Beginning Balances</u>	<u>Operating Activities</u>	<u>Investing Activities</u>	<u>Financing Activities</u>	<u>Ending Balances</u>
Cash	\$2,275	\$1,515	(\$1,275)	(\$350)	\$2,165
Accounts receivable	\$2,150	\$450			\$2,600
Inventory	\$2,725	\$725			\$3,450
Prepaid expenses	\$525	\$75			\$600
Fixed assets, net of depreciation	\$5,535	(\$775)	\$1,275		\$6,035
Assets	<u>\$13,210</u>	<u>\$1,990</u>		<u>(\$350)</u>	<u>\$14,850</u>
Accounts payable	\$640	\$125			\$765
Accrued expenses payable	\$750	\$150			\$900
Income tax payable	\$90	\$25			\$115
Interest-bearing debt	\$6,000			\$250	\$6,250
O.E.-invested capital	\$3,100			\$150	\$3,250
O.E.-retained earnings	\$2,630	\$1,690		(\$750)	\$3,570
Liabilities & owners' equity	<u>\$13,210</u>	<u>\$1,990</u>		<u>(\$350)</u>	<u>\$14,850</u>

Figure 5-1:
Summary of changes in assets, liabilities, and owners' equity during the year.

Note: Figure 5-1 is not — I repeat *not* — a balance sheet. The balance sheet for this business is presented later in the chapter (see Figure 5-2). Businesses do not report a summary of changes in assets, liabilities, and owners' equity such as the one that I show in Figure 5-1 (although personally I think that such a summary would be helpful to users of financial reports). The purpose of Figure 5-1 is to leave a trail of how the three major types of transactions during the year change the assets, liabilities, and owner's equity accounts of the business during the year.

The 2009 income statement of the business in the example is shown in Figure 4-1 in Chapter 4. You may want to flip back to this financial statement. On sales revenue of \$26 million, the business earned \$1.69 million bottom-line profit (net income) for the year. The sales and expense transactions of the business during the year plus the allied transactions connected with sales and expenses cause the changes shown in the operating activities column in Figure 5-1. You can see in Figure 5-1 that the \$1.69 million net income has increased the business's owners' equity—retained earnings by the same amount.



The operating activities column in Figure 5-1 is worth lingering over for a few moments because the financial outcomes of making profit are seen in this column. In my experience, most people see a profit number, such as the \$1.69 million in this example, and stop thinking any further about the financial outcomes of making the profit. This is like going to a movie because you like its title, but you don't know anything about the plot and characters. You probably noticed that the \$1,515,000 increase in cash in this column differs from the \$1,690,000 net income figure for the year. That's because the cash effect of making profit (which includes the allied transactions connected with sales and expenses) is almost always different than the net income amount for the year. Chapter 6 on cash flows explains this difference.

The summary of changes presented in Figure 5-1 gives a sense of the balance sheet in motion, or how the business got from the start of the year to the end of the year. It's very important to have a good sense of how transactions propel the balance sheet. A summary of balance sheet changes, such as shown in Figure 5-1, can be helpful to business managers who plan and control changes in the assets and liabilities of the business. They need a clear understanding of how the two basic types of transactions change assets and liabilities. Also, Figure 5-1 provides a useful platform for the statement of cash flows, which I explain in Chapter 6.

Presenting a Balance Sheet

Figure 5-2 presents a two-year, comparative balance sheet for the business example that I introduce in Chapter 4. The balance sheet is at the close of business, December 31, 2008 and 2009. In most cases financial statements are not completed and released until a few weeks after the balance sheet date.

Therefore, by the time you would read this financial statement it's already out of date, because the business has continued to engage in transactions since December 31, 2009. (Managers of a business get internal financial statements much sooner.) When substantial changes have occurred in the interim, a business should disclose these developments in its financial report.



When a business does not release its annual financial report within a few weeks after the close of its fiscal year, you should be alarmed. There are reasons for such a delay, and the reasons are all bad. One reason might be that the business's accounting system is not functioning well and the controller (chief accounting officer) has to do a lot of work at year-end to get the accounts up to date and accurate for preparing the financial statements. Another reason is that the business is facing serious problems and can't decide on how to account for the problems. Perhaps a business may be delaying the reporting of bad news. Or the business may have a serious dispute with its independent CPA auditor that has not been resolved (see Chapter 15 where I explain audits).

Typical Business, Inc.
Statement of Financial Condition
at December 31, 2008 and 2009
(Dollar amounts in thousands)

Assets	2008	2009
Cash	\$2,275	\$2,165
Accounts receivable	\$2,150	\$2,600
Inventory	\$2,725	\$3,450
Prepaid expenses	\$525	\$600
Current assets	<u>\$7,675</u>	<u>\$8,815</u>
Property, plant, and equipment	\$11,175	\$12,450
Accumulated depreciation	(\$5,640)	(\$6,415)
Net of depreciation	<u>\$5,535</u>	<u>\$6,035</u>
Total assets	<u>\$13,210</u>	<u>\$14,850</u>
Liabilities and Owners' Equity	2008	2009
Accounts payable	\$640	\$765
Accrued expenses payable	\$750	\$900
Income tax payable	\$90	\$115
Short-term notes payable	\$2,150	\$2,250
Current liabilities	<u>\$3,630</u>	<u>\$4,030</u>
Long-term notes payable	<u>\$3,850</u>	<u>\$4,000</u>
Owners' equity:		
Invested capital	\$3,100	\$3,250
Retained earnings	\$2,630	\$3,570
Total owners' equity	<u>\$5,730</u>	<u>\$6,820</u>
Total liabilities and owners' equity	<u>\$13,210</u>	<u>\$14,850</u>

Figure 5-2:
The balance sheets of a business at the end of its two most recent years.

In reading through a balance sheet such as the one shown in Figure 5-2, you may notice that it doesn't have a punch line like the income statement does. The income statement's punch line is the net income line, which is rarely humorous to the business itself but can cause some snickers among analysts. You can't look at just one item on the balance sheet, murmur an appreciative "ah-ha," and rush home to watch the game. You have to read the whole thing (sigh) and make comparisons among the items. Chapters 13 and 17 offer more information on interpreting financial statements.

Notice in Figure 5-2 that the beginning and ending balances in the assets, liabilities, and owner's equity accounts are the same as in Figure 5-1. The balance sheet in Figure 5-2 discloses the original cost of the company's fixed assets and the accumulated depreciation recorded over the years since acquisition of the assets, which is standard practice. (Figure 5-1 presents only the *net* book value of its fixed assets, which equals original cost minus accumulated depreciation.)



The balance sheet is unlike the income and cash flow statements, which report flows over a period of time (such as sales revenue that is the cumulative amount of all sales during the period). The balance sheet presents the *balances* (amounts) of a company's assets, liabilities, and owners' equity at an instant in time. Notice the two quite different meanings of the term *balance*. As used in *balance sheet*, the term refers to the equality of the two opposing sides of a business — total assets on the one side and total liabilities and owners' equity on the other side, like a scale with equal weights on both sides. In contrast, the *balance* of an account (asset, liability, owners' equity, revenue, and expense) refers to the amount in the account after recording increases and decreases in the account — the net amount after all additions and subtractions have been entered. Usually, the meaning of the term is clear in context.



An accountant can prepare a balance sheet at any time that a manager wants to know how things stand financially. Some businesses — particularly financial institutions such as banks, mutual funds, and securities brokers — need balance sheets at the end of each day, in order to track their day-to-day financial situation. For most businesses, however, balance sheets are prepared only at the end of each month, quarter, and year. A balance sheet is always prepared at the close of business on the last day of the profit period. In other words, the balance sheet should be in sync with the income statement.

Kicking balance sheets out into the real world

The statement of financial condition, or balance sheet, shown earlier in Figure 5-2 is about as lean and mean as you'll ever read. In the real world many businesses are fat and complex. Also, I should make clear that Figure 5-2 shows the content and format for an *external* balance sheet, which

means a balance sheet that is included in a financial report released outside a business to its owners and creditors. Balance sheets that stay within a business can be quite different.

Internal balance sheets



For internal reporting of financial condition to managers, balance sheets include much more detail, either in the body of the financial statement itself or, more likely, in supporting schedules. For example, just one cash account is shown in Figure 5-2, but the chief financial officer of a business needs to know the balances on deposit in each of the business's checking accounts.

As another example, the balance sheet shown in Figure 5-2 includes just one total amount for accounts receivable, but managers need details on which customers owe money and whether any major amounts are past due. Greater detail allows for better control, analysis, and decision-making. Internal balance sheets and their supporting schedules should provide all the detail that managers need to make good business decisions. See Chapter 14 for more detail on how business managers use financial reports.

External balance sheets

Balance sheets presented in external financial reports (which go out to investors and lenders) do not include much more detail than the balance sheet shown in Figure 5-2. However, external balance sheets must *classify* (or group together) short-term assets and liabilities. For this reason, external balance sheets are referred to as *classified balance sheets*.

Let me make clear that the CIA does not vet balance sheets to keep secrets from being disclosed that would harm national security. The term *classified*, when applied to a balance sheet, does not mean restricted or top secret; rather, the term means that assets and liabilities are sorted into basic classes, or groups, for external reporting. Classifying certain assets and liabilities into *current* categories is done mainly to help readers of a balance sheet more easily compare current assets with current liabilities for the purpose of judging the short-term solvency of a business.

Judging solvency



Solvency refers to the ability of a business to pay its liabilities on time. Delays in paying liabilities on time can cause very serious problems for a business. In extreme cases, a business can be thrown into *involuntary bankruptcy*. Even the threat of bankruptcy can cause serious disruptions in the normal operations of a business, and profit performance is bound to suffer. If current liabilities become too high relative to current assets — which constitute the first line of defense for paying current liabilities — managers should move quickly to resolve the problem. A perceived shortage of current assets relative to current liabilities could ring alarm bells in the minds of the company's creditors and owners.

Therefore, notice in Figure 5-2 the following groupings (dollar amounts refer to year-end 2009):

- ✓ The first four asset accounts (cash, accounts receivable, inventory, and prepaid expenses) are added to give the \$8,815,000 subtotal for *current assets*.
- ✓ The first four liability accounts (accounts payable, accrued expenses payable, income tax payable, and short-term notes payable) are added to give the \$4.03 million subtotal for *current liabilities*.
- ✓ The total interest-bearing debt of the business is separated between \$2.25 million in *short-term* notes payable and \$4 million in *long-term* notes payable. (In Figure 5-1, only one total amount for all interest-bearing debt is given, which is \$6.25 million.)

The following sections offer more detail about current assets and liabilities.

Current (short-term) assets

Short-term, or *current*, assets include:

- ✓ Cash
- ✓ Marketable securities that can be immediately converted into cash
- ✓ Assets converted into cash within one operating cycle

The *operating cycle* refers to the repetitive process of putting cash into inventory, holding products in inventory until they are sold, selling products on credit (which generates accounts receivable), and collecting the receivables in cash. In other words, the operating cycle is the “from cash — through inventory and accounts receivable — back to cash” sequence. The operating cycles of businesses vary from a few weeks to several months, depending on how long inventory is held before being sold and how long it takes to collect cash from sales made on credit.

Current (short-term) liabilities

Short-term, or *current*, liabilities include non-interest-bearing liabilities that arise from the operating (sales and expense) activities of the business. A typical business keeps many accounts for these liabilities — a separate account for each vendor, for instance. In an external balance sheet you usually find only three or four operating liabilities, and they are not labeled as non-interest-bearing. It is assumed that the reader knows that these operating liabilities don't bear interest (unless the liability is seriously overdue and the creditor has started charging interest because of the delay in paying the liability).

The balance sheet example shown in Figure 5-2 discloses three operating liabilities: accounts payable, accrued expenses payable, and income tax payable. Be warned that the terminology for these short-term operating liabilities varies from business to business.

In addition to operating liabilities, interest-bearing notes payable that have maturity dates one year or less from the balance sheet date are included in the current liabilities section. The current liabilities section may also include certain other liabilities that must be paid in the short run (which are too varied and technical to discuss here).

Current ratio



The sources of cash for paying current liabilities are the company's current assets. That is, current assets are the first source of money to pay current liabilities when these liabilities come due. Remember that current assets consist of cash and assets that will be converted into cash in the short run. To size up current assets against total current liabilities, the *current ratio* is calculated. Using information from the company's balance sheet (refer to Figure 5-2), you compute its year-end 2009 current ratio as follows:

$$\begin{aligned} \$8,815,000 \text{ current assets} \div \$4,030,000 \text{ current} \\ \text{liabilities} = 2.2 \text{ current ratio} \end{aligned}$$

Generally, businesses do not provide their current ratio on the face of their balance sheets or in the footnotes to their financial statements — they leave it to the reader to calculate this number. On the other hand, many businesses present a financial highlights section in their financial report, which often includes the current ratio.

Folklore has it that a company's current ratio should be at least 2.0. However, business managers know that an acceptable current ratio depends a great deal on general practices in the industry for short-term borrowing. Some businesses do well with a current ratio less than 2.0, so take the 2.0 benchmark with a grain of salt. A lower current ratio does not necessarily mean that the business won't be able to pay its short-term (current) liabilities on time. Chapters 13 and 17 explain solvency in more detail.

Preparing multiyear statements

The three primary financial statements of a business, including the balance sheet, are generally reported in a two- or three-year comparative format. To give you a sense of comparative financial statements, I present a two-year comparative format for the balance sheet in Figure 5-2. Two- or three-year comparative financial statements are *de rigueur* in filings with the Securities

and Exchange Commission (SEC). Public companies have no choice, but private businesses are not under the SEC's jurisdiction. Generally accepted accounting principles (GAAP) favor presenting comparative financial statements for two or more years, but I've seen financial reports of private businesses that do not present information for prior years.



The main reason for presenting two- or three-year comparative financial statements is for *trend analysis*. The business's managers, as well as its outside investors and creditors, are extremely interested in the general trend of sales, profit margins, ratio of debt to equity, and many other vital signs of the business. Slippage in the ratio of gross margin to sales from year to year, for example, is a very serious matter.

Coupling the Income Statement and Balance Sheet

Chapter 4 explains that sales and expense transactions change certain assets and liabilities of a business (which are summarized in Figure 5-1). Even in the relatively straightforward business example introduced in Chapter 4, we see that cash and four other assets are involved, and three liabilities are involved in the profit-making activities of a business. I explore these key interconnections between revenue and expenses and the assets and liabilities of a business here. It turns out that the profit-making activities of a business shape a large part of its balance sheet.

Figure 5-3 shows the vital links between sales revenue and expenses and the assets and liabilities that are driven by these profit-seeking activities. Please note that I do not include cash in Figure 5-3. Sooner or later, sales and expenses flow through cash; cash is the pivotal asset of every business. Chapter 6 examines cash flows and the financial statement that reports the cash flows of a business. Here I focus on the non-cash assets of a business, as well as its liabilities and owners' equity accounts that are directly affected by sales and expenses. You may be anxious to examine cash flows, but as we say in Iowa, "Hold your horses." I'll get to cash in Chapter 6.

The income statement in Figure 5-3 continues the same business example I introduce in Chapter 4. It's the same income statement but with one modification. Notice that the depreciation expense for the year is taken out of *selling, general, and administrative* expenses. We need to see depreciation expense on a separate line.

Figure 5-3: The connections between sales revenue and expenses and the non-cash assets and liabilities driven by these profit-making activities.

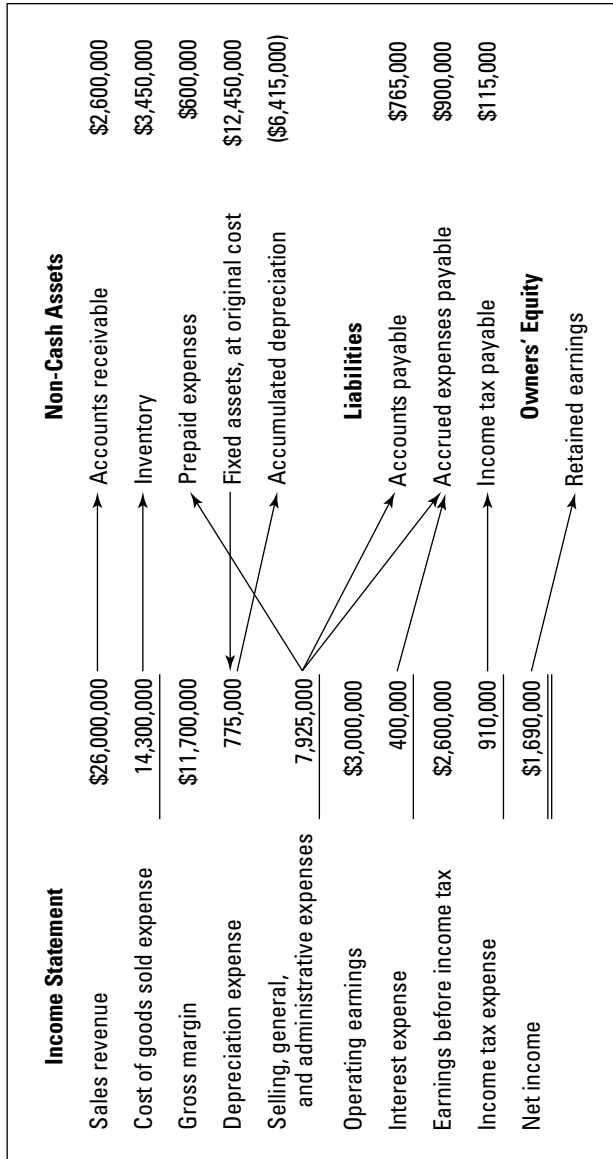


Figure 5-3 highlights the key connections between particular assets and liabilities and sales revenue and expenses. Business managers need a good understanding of these connections to control assets and liabilities. And outside investors and creditors should understand these connections to interpret the financial statements of a business (see Chapters 13 and 17).

Turning over assets

Assets should be *turned over*, or put to use, by making sales. The higher the turnover—the more times the assets are used, and then replaced—the better, because every sale is a profit-making opportunity. The *asset turnover ratio* compares annual sales revenue with total assets. In our business example, the company's asset turnover ratio is computed as follows for the year 2009 (using relevant data from Figures 5-2 and 5-3):

$$\frac{\$26,000,000 \text{ annual sales revenue}}{\$14,850,000 \text{ total assets}} = 1.75 \text{ asset turnover ratio}$$

Some industries are very capital-intensive, which means that they have low asset turnover ratios; they need a lot of assets to support their sales. For example, gas and electric utilities are capital-intensive. Many retailers, on the other hand, do not need a lot of assets to make sales. Their asset turnover ratios are relatively high; their annual sales are three, four, or five times their assets. Our business example that has a 1.75 asset turnover ratio falls in the broad middle range of businesses that sell products.

Sizing up assets and liabilities

Although the business example I use in this chapter is hypothetical, I didn't make up the numbers at random. For the example, I use a modest-sized business that has \$26 million in annual sales revenue. The other numbers in its income statement and balance sheet are realistic relative to each other. I assume that the business earns 45 percent gross margin (\$11.7 million gross margin ÷ \$26 million sales revenue = 45 percent), which means its cost of goods sold expense is 55 percent of sales revenue. The sizes of particular assets and liabilities compared with their relevant income statement numbers vary from industry to industry, and even from business to business in the same industry.

Based on its history and operating policies, the managers of a business can estimate what the size of each asset and liability should be, which provide very useful *control benchmarks* against which the actual balances of the assets and liabilities are compared, to spot any serious deviations. In other words, assets (and liabilities, too) can be too high or too low relative to the sales revenue and expenses that drive them, and these deviations can cause problems that managers should try to correct.

For example, based on the credit terms extended to its customers and the company's actual policies regarding how aggressively it acts in collecting past-due receivables, a manager determines the range for the proper, or within-the-boundaries, balance of accounts receivable. This figure is the control benchmark. If the actual balance is reasonably close to this control

benchmark, accounts receivable is under control. If not, the manager should investigate why accounts receivable is smaller or larger than it should be.

The following sections discuss the relative sizes of the assets and liabilities in the balance sheet that result from sales and expenses (for the fiscal year 2009). The sales and expenses are the *drivers*, or causes, of the assets and liabilities. If a business earned profit simply by investing in stocks and bonds, it would not need all the various assets and liabilities explained in this chapter. Such a business — a mutual fund, for example — would have just one income-producing asset: investments in securities. This chapter focuses on businesses that sell products on credit.

Sales revenue and accounts receivable

In Figure 5-3 annual sales revenue for the year 2009 is \$26 million. The year-end accounts receivable is one-tenth of this, or \$2.6 million. The average customer's credit period is roughly 36 days: 365 days in the year times the 10 percent ratio of ending accounts receivable balance to annual sales revenue. Of course, some customers' balances are past 36 days, and some are quite new; you want to focus on the average. The key question is whether a customer credit period averaging 36 days is reasonable.



Suppose that the business offers all customers a 30-day credit period, which is fairly common in business-to-business selling (although not for a retailer selling to individual consumers). The relatively small deviation of about 6 days (36 days average credit period versus 30 days normal credit terms) probably is not a significant cause for concern. But suppose that, at the end of the period, the accounts receivable had been \$3.9 million, which is 15 percent of annual sales, or about a 55-day average credit period. Such an abnormally high balance should raise a red flag; the responsible manager should look into the reasons for the abnormally high accounts receivable balance. Perhaps several customers are seriously late in paying and should not be extended new credit until they pay up.

Cost of goods sold expense and inventory

In Figure 5-3 the cost of goods sold expense for the year 2009 is \$14.3 million. The year-end inventory is \$3.45 million, or about 24 percent. In rough terms, the average product's inventory holding period is 88 days — 365 days in the year times the 24 percent ratio of ending inventory to annual cost of goods sold. Of course, some products may remain in inventory longer than the 88-day average, and some products may sell in a much shorter period than 88 days. You need to focus on the overall average. Is an 88-day average inventory holding period reasonable?



The “correct” average inventory holding period varies from industry to industry. In some industries, especially heavy equipment manufacturing, the inventory holding period is very long — three months or longer. The opposite is true for high-volume retailers, such as retail supermarkets, that depend on getting products off the shelves as quickly as possible. The 88-day average holding period in the example is reasonable for many businesses but would be too high for some businesses.

The managers should know what the company’s average inventory holding period should be — they should know what the control benchmark is for the inventory holding period. If inventory is much above this control benchmark, managers should take prompt action to get inventory back in line (which is easier said than done, of course). If inventory is at abnormally low levels, this should be investigated as well. Perhaps some products are out of stock and should be immediately restocked to avoid lost sales.

Fixed assets and depreciation expense

As Chapter 4 explains, depreciation is a relatively unique expense. Depreciation is like other expenses in that all expenses are deducted from sales revenue to determine profit. Other than this, however, depreciation is very different from other expenses. When a business buys or builds a long-term operating asset, the cash outlay for the asset is recorded in a fixed asset account. The cost of a fixed asset is spread out, or allocated, over its expected useful life to the business. The depreciation expense recorded in the period does not require any further cash outlay during the period. (The cash outlay occurred when the fixed asset was acquired.) Rather, depreciation expense for the period is that portion of the total cost of a business’s fixed assets that is allocated to the period to record the cost of using the assets during the period. Depreciation depends on which method is used to allocate the cost of fixed assets over their estimated useful lives. I explain different depreciation methods in Chapter 7.

The higher the total cost of its fixed assets (called *property, plant, and equipment* in a formal balance sheet), the higher a business’s depreciation expense. However, there is no standard ratio of depreciation expense to the cost of fixed assets. The annual depreciation expense of a business seldom is more than 10 to 15 percent of the original cost of its fixed assets. Either the depreciation expense for the year is reported as a separate expense in the income statement (as in Figure 5-3), or the amount is disclosed in a footnote.



Because depreciation is based on the gradual charging off, or writing-down of, the cost of a fixed asset, the balance sheet reports not one but two numbers: the original (historical) cost of its fixed assets and the *accumulated depreciation* amount (the total amount of depreciation that has been charged to expense from the time of acquiring the fixed assets to the current balance

sheet date). The purpose isn't to confuse you by giving you even more numbers to deal with. Seeing both numbers gives you an idea of how old the fixed assets are and also tells you how much these fixed assets originally cost.

In the example we're working with in this chapter, the business has, over several years, invested \$12,450,000 in its fixed assets (that it still owns and uses), and it has recorded total depreciation of \$6,415,000 through the end of the most recent fiscal year, December 31, 2009. (Refer to the balance sheet presented in Figure 5-2.) The business recorded \$775,000 depreciation expense in its most recent year. (See its income statement in Figure 5-3.)

You can tell that the company's collection of fixed assets includes some old assets because the company has recorded \$6,415,000 total depreciation since assets were bought — a fairly sizable percent of original cost (more than half). But many businesses use accelerated depreciation methods that pile up a lot of the depreciation expense in the early years and less in the back years (see Chapter 7 for more details), so it's hard to estimate the average age of the company's assets. A business could discuss the actual ages of its fixed assets in the footnotes to its financial statements, but hardly any businesses disclose this information — although they do identify which depreciation methods they are using.

SG&A expenses and their three balance sheet accounts

Take yet another look at Figure 5-3 and notice that sales, general, and administrative (SG&A) expenses connect with three balance sheet accounts: prepaid expenses, accounts payable, and accrued expenses payable. The broad SG&A expense category includes many different types of expenses in making sales and operating the business. (Separate expense accounts are maintained for specific expenses; depending on the size of the business and the needs of its various managers, hundreds or thousands of specific expense accounts are established.)

For bookkeeping convenience, a business records many expenses when the expense is paid. For example, wage and salary expenses are recorded on payday. However, this "record as you pay" method does not work for many expenses. For instance, insurance and office supplies costs are *prepaid*, and then released to expense gradually over time. The cost is initially put in the *prepaid expenses* asset account. (Yes, I know that "prepaid expenses" doesn't sound like an asset account, but it is.) Other expenses are not paid until weeks after the expenses are recorded. The amounts owed for these unpaid expenses are recorded in an *accounts payable* or in an *accrued expenses payable* liability account.

I won't go through all the details of how I came up with the year-end balances in prepaid expenses, accounts payable, and accrued expenses payable (aren't you lucky!). For more details, you may want to take a look at Chapter 4. Remember that the accounting objective is to match expenses with sales revenue for the year, and only in this way can the amount of profit be measured for the year. So expenses recorded for the year should be the correct amounts, regardless of when they're paid.

Intangible assets and amortization expense

Although our business example does not include these kinds of assets, many businesses invest in intangible assets. *Intangible* means without physical existence, in contrast to buildings, vehicles, and computers. For example:

- ✓ A business may purchase the customer list of another company that is going out of business.
- ✓ A business may buy patent rights from the inventor of a new product or process.
- ✓ A business may buy another business lock, stock, and barrel and may pay more than the total of the individual assets of the company being bought are worth — even after adjusting the particular assets to their current values. The extra amount is for *goodwill*, which may consist of a trained and efficient workforce, an established product with a reputation for high quality, or a very valuable location.



Only intangible assets that are purchased are recorded by a business. A business must expend cash, or take on debt, or issue owners' equity shares for an intangible asset in order to record the asset on its books. Building up a good reputation with customers or establishing a well-known brand is not recorded as an intangible asset. You can imagine the value of Coca-Cola's brand name, but this "asset" is not recorded on the company's books. (However, Coca-Cola protects its brand name with all the legal means at its disposal.)

The cost of an intangible asset is put in the appropriate asset account, just like the cost of a tangible asset is recorded in a fixed asset account. And, like a fixed asset account (with the exception of land), the cost of an intangible asset that has a limited useful economic life is allocated over its estimated useful life. (**Note:** Certain intangible assets are viewed as having more or less perpetual useful lives.) The allocation of the cost of an intangible asset over its estimated economic life is called *amortization*. Amortization expense is very similar to depreciation expense. Because our business example does not include any intangible assets, there is no amortization expense.

What about cash?

A business's cash account consists of the money it has in its checking accounts plus the money that it keeps on hand. Cash is the essential lubricant of business activity. Sooner or later, virtually all business transactions pass through the cash account.

Every business needs to maintain a working cash balance as a buffer against fluctuations in day-to-day cash receipts and payments. You can't really get by with a zero cash balance, hoping that enough customers will provide enough cash to cover all the cash payments that you need to make that day.

At year-end 2009, the cash balance of the business whose balance sheet is presented in Figure 5-2 is \$2,165,000, which equals a little

more than four weeks of annual sales revenue. How large a cash balance should a business maintain? This question has no simple answer. A business needs to determine how large a cash safety reserve it's comfortable with to meet unexpected demands on cash while keeping the following points in mind:

- ✓ Excess cash balances are unproductive and don't earn any profit for the business.
- ✓ Insufficient cash balances can cause the business to miss taking advantage of opportunities that require quick action — such as snatching up a prized piece of real estate that just came on the market or buying out a competitor.

Debt and interest expense

Look back at the balance sheet shown in Figure 5-2. Notice that the sum of this business's short-term (current) and long-term notes payable at year-end 2009 is \$6.25 million. From its income statement in Figure 5-3 we see that its interest expense for the year was \$400,000. Based on the year-end amount of debt, the annual interest rate is about 6.4 percent. (The business may have had more or less borrowed at certain times during the year, of course, and the actual interest rate depends on the debt levels from month to month.)

For most businesses, a small part of their total annual interest is unpaid at year-end; the unpaid part is recorded to bring interest expense up to the correct total amount for the year. In Figure 5-3, the accrued amount of interest is included in the *accrued expenses payable* liability account. In most balance sheets you don't find accrued interest payable on a separate line; rather, it's included in the accrued expenses payable liability account. However, if unpaid interest at year-end happens to be a rather large amount, or if the business is seriously behind in paying interest on its debt, it should report the accrued interest payable as a separate liability.

Income tax expense and income tax payable

In Figure 5-3, earnings before income tax — after deducting interest and all other expenses from sales revenue — is \$2.6 million. The actual taxable income of the business for the year probably is different than this amount because of the many complexities in the income tax law. In the example, I use a realistic 35 percent tax rate, so the income tax expense is \$910,000 of the pretax income of \$2.6 million.

A large part of the federal income tax amount for the year must be paid before the end of the year. But a small part is usually still owed at the end of the year. The unpaid part is recorded in the *income tax payable* liability account, as you see in Figure 5-3. In the example, the unpaid part is \$115,000 of the total \$910,000 income tax for the year, but I don't mean to suggest that this ratio is typical. Generally, the unpaid income tax at the end of the year is fairly small, but just how small depends on several technical factors.

Net income and cash dividends (if any)

A business may have other sources of income during the year, such as interest income on investments. In this example, however, the business has only sales revenue, which is gross income from the sale of products and services. All expenses — starting with cost of goods sold down to and including income tax — are deducted from sales revenue to arrive at the last, or bottom, line of the income statement. The preferred term for bottom-line profit is *net income*, as you see in Figure 5-3.

The \$1.69 million net income for the year increases the owners' equity account *retained earnings* by the same amount, which is indicated by the line of connection from net income to retained earnings in Figure 5-3. The \$1.69 million profit (here I go again using the term *profit* instead of *net income*) either stays in the business or some of it is paid out and divided among the owners of the business. This business paid out cash distributions from profit during the year, and the total of these cash payments to its owners (shareholders) is recorded as a decrease in retained earnings. You can't tell from the income statement or the balance sheet the amount of cash dividends. You have to look in the statement of cash flows for this information (which I explain in Chapter 6).

Financing a Business



To run a business, you need financial backing, otherwise known as *capital*. In broad overview, a business raises capital needed for its assets by buying things on credit, waiting to pay some expenses, borrowing money, getting owners to invest money in the business, and making profit that is retained in the business. Borrowed money is known as *debt*; capital invested in the business by its owners and retained profits are the two sources of *owners' equity*.

How did the business whose balance sheet is shown in Figure 5-2 finance its assets? Its total assets are \$14.85 million at year-end 2009. The company's profit-making activities generated three liabilities — accounts payable, accrued expenses payable, and income tax payable — and in total these three liabilities provided \$1.78 million of the total assets of the business. Debt provided \$6.25 million, and the two sources of owners' equity provided the other \$6.82 million. All three sources add up to \$14.85 million, which equals total assets, of course. Otherwise, its books would be out of balance, which is a definite no-no.

Accounts payable, accrued expenses payable, and income tax payable are short-term, non-interest-bearing liabilities that are sometimes called *spontaneous liabilities* because they arise directly from a business's expense activities — they aren't the result of borrowing money but rather are the result of buying things on credit or delaying payment of certain expenses.

It's hard to avoid these three liabilities in running a business; they are generated naturally in the process of carrying on operations. In contrast, the mix of debt (interest-bearing liabilities) and equity (invested owners' capital and retained earnings) requires careful thought and high-level decisions by a business. There's no natural, or automatic, answer to the debt-versus-equity question. The business in the example has a large amount of debt relative to its owners' equity, which would make many business owners uncomfortable.

Debt is both good and bad, and in extreme situations it can get very ugly. The advantages of debt are:

- ✓ Most businesses can't raise all the capital they need from owners' equity sources, and debt offers another source of capital (though, of course, many lenders are willing to provide only part of the capital that a business needs).
- ✓ Interest rates charged by lenders are lower than rates of return expected by owners. Owners expect a higher rate of return because they're taking a greater risk with their money — the business is not required to pay them back the same way that it's required to pay back a lender. For example, a business may pay 6 percent annual interest on its debt and be expected to earn a 12 percent annual rate of return on its owners' equity. (See Chapter 13 for more on earning profit for owners.)

Financial leverage: Taking a chance on debt

The large majority of businesses borrow money to provide part of the total capital needed for their assets. The main reason for debt is to close the gap between how much capital the owners can come up with and the amount the business needs. Lenders are willing to provide the capital because they have a senior claim on the assets of the business. Debt has to be paid back before the owners can get their money out of the business. A business's owners' equity provides a relatively permanent base of capital and gives its lenders a cushion of protection.

The owners use their capital invested in the business as the basis to borrow. For example, for every two bucks the owners have in the business, lenders may be willing to add another dollar (or even more). Using owners' equity as the basis for borrowing is referred to as *financial leverage*, because the equity base of the business can be viewed as the fulcrum, and borrowing is the lever for lifting the total capital of the business.

A business can realize a financial leverage gain by making more EBIT (earnings before interest

and income tax) on the amount borrowed than the interest on the debt. For a simple example, assume that debt supplies one-third of the total capital of a business (and owners' equity two-thirds). Suppose the business's EBIT for the year just ended is a nice, round \$3 million. Fair is fair, so you could argue that the lenders, who put up one-third of the money, should get one-third, or \$1 million, of the profit. This is not how it works. The lenders get only the interest amount on their loans. Suppose the total interest for the year is \$600,000. The financial leverage gain, therefore, is \$400,000. The owners would get their two-thirds share of EBIT plus the \$400,000 pretax financial leverage gain.

On the flip side, using debt may not yield a financial leverage gain, but rather a financial leverage *loss*. One-third of a company's EBIT may equal *less* than the interest due on its debt. That interest has to be paid no matter what amount of EBIT the business earns. Suppose EBIT equals zero for the year. Nevertheless, the business must pay the interest on its debt. So, the business would have a bottom-line loss for the year.

The disadvantages of debt are:

- ✔ A business must pay the fixed rate of interest for the period even if it suffers a loss for the period or earns a lower rate of return on its assets.
- ✔ A business must be ready to pay back the debt on the specified due date, which can cause some pressure on the business to come up with the money on time. (Of course, a business may be able to *roll over* or renew its debt, meaning that it replaces its old debt with an equivalent amount of new debt, but the lender has the right to demand that the old debt be paid and not rolled over.)



If a business defaults on its debt contract — it doesn't pay the interest on time or doesn't pay back the debt on the due date — it faces some major unpleasantness. In extreme cases, a lender can force it to shut down and liquidate its assets (that is, sell off everything it owns for cash) to pay off the

debt and unpaid interest. Just as you can lose your home if you don't pay your home mortgage, a business can be forced into involuntary bankruptcy if it doesn't pay its debts. A lender may allow the business to try to work out its financial crisis through bankruptcy procedures, but bankruptcy is a nasty affair that invariably causes many problems and can really cripple a business.

Costs and Other Balance Sheet Values

In my experience, the values for assets reported in a balance sheet can be a source of confusion for both business managers and investors, who tend to put all dollar amounts on the same value basis. In their minds, a dollar is a dollar, whether it's in accounts receivable, inventory, fixed assets, accounts payable, or retained earnings. However, this naïve assumption glosses over important differences and can lead to serious misinterpretation of the balance sheet. A balance sheet reports a rainbow of values — not just one color. This is the nature of the generally accepted accounting principles (GAAP) — the accounting methods used to prepare financial statements for the external financial reporting by a business (see Chapter 2).



Book values are the amounts recorded in the accounting process and reported in financial statements. Do not assume that the book values reported in a balance sheet necessarily equal the current *market values*. Book values are based on the accounting methods used by a business. Generally speaking, the amounts reported for cash, accounts receivable, and liabilities are equal to or are very close to their current market or settlement values. For example, accounts receivable will be turned into cash for the amount recorded on the balance sheet, and liabilities will be paid off at the amounts reported in the balance sheet. It's the book values of inventory and fixed assets, as well as any other assets in which the business invested some time ago, that most likely are lower than current replacement values.



Different businesses select different accounting methods to determine their cost of inventory and how much of each of their fixed assets' costs are allocated to depreciation expense each year. A business is free to use very conservative accounting methods — with the result that its inventory cost value and the undepreciated cost of its fixed assets may be considerably lower than the current replacement cost values of these assets. Chapter 7 explains about choosing from among alternative accounting methods.

A business may use accounting methods that have the effect of recording higher profit and higher asset values than would exist under more conservative accounting methods. Even so, the current replacement values of its inventory and fixed assets may be quite a bit higher than the recorded costs of these assets, in particular for buildings, land, heavy machinery, and equipment. For example, the aircraft fleet of United Airlines, as reported in its balance sheet, is

hundreds of millions of dollars less than the current cost it would have to pay to replace the planes. Complicating matters is the fact that many of its older planes are not being produced any more, and United would replace the older planes with newer models.

Businesses are not permitted under GAAP to write up the book values of their assets to current market or replacement values. (Well, investments in marketable securities held or available for sale have to be written up, or down, but this is an exception to the general rule.) Although recording market values has intuitive appeal, a mark-to-market valuation model is not practical or appropriate for businesses that sell products and services. These businesses do not stand ready to sell their assets (other than inventory); they need their assets for operating the business into the future. At the end of their useful lives, assets are sold for their disposable values (or traded in for new assets).

Chapter 6

Reporting Cash Flows

In This Chapter

- ▶ Earning profit versus generating cash flow
 - ▶ Presenting the statement of cash flows
 - ▶ Analyzing the cash flow from making profit
 - ▶ Scrutinizing the statement of cash flows
-

Suppose that a business's cash balance decreases \$110,000 during the year. You see this decrease in the company's balance sheets for the years ended December 31, 2008 and 2009. The business started the year with \$2,275,000 cash and ended the year with \$2,165,000 (as in the business example I use in Chapters 4 and 5.) What does the balance sheet tell you about the reasons for the cash decrease? Well, not a whole lot. Answering such a question is not the nature or purpose of a balance sheet.

One possibility is that the business suffered a large loss in 2009 that caused a drain on cash. You can look at its 2009 income statement to find out whether the business had a loss or made a profit, but this financial statement does *not* report the cash flow effect from the loss or profit. Another possibility for the cash decrease is that the business paid down its debt. Or perhaps the company made large investments in new machines and equipment during the year. Where do you look for such information? Answering this question is the main purpose of this chapter, which introduces the third key financial statement: *the statement of cash flows*.

Seeing the Big Picture of Cash Flows

People generally understand that a business increases its cash by increasing its debt and by its owners investing more money in the business. They understand that a business can also sell some of its assets to provide cash. They

know that its cash decreases when a business pays down its debt, returns some of the capital that its owners had previously invested in the business, and invests in new fixed assets (buildings, machines, equipment, vehicles, and so on).



Most people also know there is another important source of cash: *making profit*. However, things get a little tricky regarding this source of cash. One problem is this: Instead of saying that a business “earns profit,” people say that a business “makes money.” Therefore, many people assume that the bottom-line profit for the year increases cash exactly the same amount — no more, and no less. Not true: The actual amount of cash flow from making profit is invariably different than the amount of profit earned for the period. Earning profit and generating cash flow from the profit are two different things. You’re talking about apples and oranges when you’re talking about profit and cash flow from profit.



Here’s a very brief explanation of why profit and cash flow from profit are different amounts. When a business makes sales on credit, sales revenue is recorded before cash is collected from customers. Cash inflow from credit sales takes place *after* recording the sales revenue. Also, many expenses are recorded before cash is paid for the liabilities incurred by the expenses. So, cash outflow for the expenses takes place *after* recording the expenses. Furthermore, the recording of depreciation expense does not require a cash outlay in the period. You could simply add back depreciation expense to bottom-line profit to get a rough (and I mean rough) measure of cash flow from making profit. But this shortcut ignores the other factors that affect cash flow from profit, and I don’t recommend it.

Note: Because I use the same business example in this chapter that I use in Chapters 4 and 5, you may want to take a moment to review its 2009 income statement in Figure 4-1. And you may want to review Figure 5-1, which summarizes how the three types of activities changed its assets, liabilities, and owners’ equity accounts during the year 2009. (Go ahead, I’ll wait.)

Suppose the president of the business asks me, the chief accountant (controller), for an executive summary of the company’s sources and uses of cash during the year ended December 31, 2009. The president does not want a formal, detailed financial statement with all the bells and whistles. He wants a very brief summary that speaks to him as the very busy chief executive of the business. Here’s what I would prepare for him:

**Executive Summary for Company's President
Sources and Uses of Cash During the Year 2009**

Cash flow from making profit	\$1,515,000	
Cash distributions from profit to shareowners	(\$750,000)	\$765,000
Cash flow from increasing debt		\$250,000
Cash flow from capital invested by owners		<u>\$150,000</u>
Cash available for general business purposes		\$1,165,000
Capital expenditures during year		<u>(\$1,265,000)</u>
Cash decrease during year		(\$110,000)

The president would do a critical review of the strategic decisions that were made during the year. For example, was it prudent to take on more debt? Why did the shareowners invest an additional \$150,000 in the business, and will they invest additional capital during the coming year? Should the business have distributed about half of the cash flow from profit to its owners? I return to these issues in the last section of the chapter, “Being an Active Reader.”

You may be wondering how I got the information to prepare the executive summary of cash flows for the president. I extracted the relevant information from the company's asset, liability, and owners' equity accounts. I examined the increases and decreases entered in the accounts during the year to determine the amounts you see in the executive summary. This is no problem; I'm an accountant, you know. Accountants prepare detailed spreadsheets in which changes in the asset, liability, and owners' equity accounts are analyzed and classified in order to prepare a statement of cash flows, or an executive summary such as the one I show here. Computer software programs can be used for this purpose.



The president of the business can request any particular accounting report or summary that he wants. The president is not limited or restricted to the format and content of the three financial statements that are prepared for external reporting. If the president wants an executive summary of cash flows, as opposed to a formal statement of cash flows as it is presented in the external financial report of the business, then as controller I prepare the executive summary. I know which side my bread is buttered on. There are no restrictions regarding how to report cash flows internally (inside the business to its managers). If the president doesn't like or doesn't understand the information I give him in the executive summary of cash flows, he will let me know in no uncertain terms.

You may be wondering in particular how I got the \$1,515,000 amount for cash flow from making profit (see the executive summary). And, you may be wondering why this cash flow amount is different than the \$1.69 million bottom-line profit number reported in the company's income statement for the year (see Figure 4-1 in Chapter 4).



One purpose of the statement of cash flows is to report the cash flow from making profit and to explain the difference between the cash flow number and the bottom-line profit number in the income statement. The cash flow number is based on actual cash inflows and outflows; the profit number is based on accounting for sales revenue and expenses. Remember the following points:

- ✓ If a business makes credit sales, the total cash inflow from customers is different than the total sales revenue recorded in the year (unless the business collects all its credit sales before the end of the year).
- ✓ The total cash outlay for expenses during the year is different than the total amount of expenses recorded in the year.

The statement of cash flows begins with the cash flow from making profit, or *cash flow from operating activities* as accountants call it. *Operating activities* is the technical term that accountants have adopted for sales and expenses, which are the “operations” that a business carries out to earn profit. I don't think it's the best term in the world, but we are stuck with it; it's part of the official language of accounting.

Meeting the Statement of Cash Flows

I hate to start out like this, but I have to tell you that a business has its choice between two quite different methods of reporting cash flow from operating activities in its statement of cash flows. Financial reporting standards permit either approach. I first show you the preferred method, and then the alternative. Figure 6-1 presents the statement of cash flows for our business example dressed to the nines, in formal attire. This is not a condensed version; it's the real thing, not an executive summary. One main difference, as compared with the executive summary of cash flows I prepared for the president, is seen in the first section, *Cash Flows from Operating Activities*.

What you see in the first section of the statement of cash flows is called the *direct method* for reporting cash flow from operating activities. I think the term “direct” is meant to refer to the cash flows connected with sales and expenses. For example, the business collects \$25.55 million from customers during the year, which is the direct result of making sales.

Typical Business, Inc.
Statement of Cash Flows
for Year Ended December 31, 2009
(Dollar amounts in thousands)

Cash Flows from Operating Activities		
Collections from sales		\$25,550
Payments for products	(\$15,025)	
Payments for selling, general, and administrative costs	(\$7,750)	
Payments for interest on debt	(\$375)	
Payments on income tax	(\$885)	(\$24,035)
Cash flow from operating activities		\$1,515
Cash Flows from Investing Activities		
Expenditures on property, plant, and equipment		(\$1,275)
Cash Flows from Financing Activities		
Short-term debt increase	\$100	
Long-term debt increase	\$150	
Capital stock issue	\$150	
Dividends paid stockholders	(\$750)	(\$350)
Decrease in cash during year		(\$110)
Beginning cash balance		\$2,275
Ending cash balance		\$2,165

Figure 6-1:
The statement of cash flows — using the *direct method* for presenting cash flow from operating activities.

Note in Figure 6-1 that cash flow from operating activities for the year is \$1,515,000, which is \$175,000 less than the company's \$1,690,000 net income for the year (refer to Figure 4-1). When issuing the financial reporting standard for the statement of cash flows, the Financial Accounting Standards Board (FASB) thought that financial report readers would compare cash flow from operating activities with net income, and they would want some sort of explanation for the difference between these two important financial numbers.

Therefore, the FASB decreed that the statement of cash flows should also include a reconciliation schedule to explain the difference between cash flow from operating activities and net income. Or, a business can use the alternative method for reporting cash flow from operating activities. The alternative

method starts with net income, and then makes adjustments in order to reconcile cash flow from operating activities with net income. This alternative method is called the *indirect method*, which I show in Figure 6-2.

Typical Business, Inc.
Statement of Cash Flows
for Year Ended December 31, 2009
(Dollar amounts in thousands)

Cash Flows from Operating Activities		
Net income		\$1,690
Adjustments to net income for determining cash flow:		
Accounts receivable increase	(\$450)	
Inventory increase	(\$725)	
Prepaid expenses increase	(\$75)	
Depreciation expense	\$775	
Accounts payable increase	\$125	
Accrued expenses increase	\$150	
Income tax payable increase	\$25	(\$175)
Cash flow from operating activities		\$1,515
Cash Flows from Investing Activities		
Expenditures on property, plant, and equipment		(\$1,275)
Cash Flows from Financing Activities		
Short-term debt increase	\$100	
Long-term debt increase	\$150	
Capital stock issue	\$150	
Dividends paid stockholders	(\$750)	(\$350)
Decrease in cash during year		(\$110)
Beginning cash balance		\$2,275
Ending cash balance		\$2,165

Figure 6-2:
The statement of cash flows — using the *indirect method* for presenting cash flow from operating activities.

The indirect method for reporting cash flow from operating activities focuses on the *changes* during the year in the assets and liabilities that are connected with sales and expenses. I explain these connections in Chapter 4. (You can also trace these changes back to Figure 5-1, which includes the start-of-year and end-of-year balances of the balance sheet accounts for the business example.)

While there are obvious differences in the first section of the statement of cash flows between the two methods for reporting cash flow from operating activities, the other two sections of the statement — cash flow from investing activities and cash flow from financing activities — are the same. The level of detail disclosed in these two sections varies from business to business. For example, some companies report one aggregate amount for all capital expenditures (investments in new long-term operating assets), whereas others give a more detailed breakdown.

Dissecting the Difference Between Cash Flow and Net Income



A positive cash flow from operating activities is the amount of cash generated by a business's profit-making operations during the year, exclusive of its other sources of cash during the year. Cash flow from operating activities indicates a business's ability to turn profit into available cash — cash in the bank that can be used for the needs of business. As you see in Figure 6-1 or Figure 6-2 (take your pick), the business in our example generated \$1,515,000 cash from its profit-making activities in the year. As they say in New York, "That isn't chopped liver."

The business in our example experienced a strong growth year. Its accounts receivable and inventory increased by relatively large amounts. In fact, all its assets and liabilities intimately connected with sales and expenses increased; their ending balances are larger than their beginning balances (which are the amounts carried forward from the end of the preceding year). Of course, this may not always be the case in a growth situation; one or more assets and liabilities could decrease during the year. For flat, no-growth situations, it's likely that there will be a mix of modest-sized increases and decreases.

The following sections explain how the asset and liability changes affect cash flow from operating activities. As a business manager, you should keep a close watch on the changes in each of your assets and liabilities and understand the cash flow effects caused by these changes. Investors should focus on the business's ability to generate a healthy cash flow from operating activities, so investors should be equally concerned about these changes. In some situations these changes can signal serious problems!

I realize that you may not be too interested in the details that I discuss in the following sections. With this in mind, at the start of each section I present the punch line. If you wish, you can just read this and move on. But the details are fascinating (well, at least to accountants).

Note: Instead of using the full phrase “cash flow from operating activities” every time, I use the shorter term “cash flow” in the following sections. All data for assets and liabilities are found in the two-year balance sheet of the business (see Figure 5-2).

Accounts receivable change

Punch Line: An increase in accounts receivable hurts cash flow; a decrease helps cash flow.



The accounts receivable asset shows how much money customers who bought products on credit still owe the business; this asset is a promise of cash that the business will receive. Basically, accounts receivable is the amount of uncollected sales revenue at the end of the period. Cash does not increase until the business collects money from its customers.

The business started the year with \$2.15 million and ended the year with \$2.6 million in accounts receivable. The beginning balance was collected during the year, but the ending balance had not been collected at the end of the year. Thus the *net* effect is a shortfall in cash inflow of \$450,000. The key point is that you need to keep an eye on the increase or decrease in accounts receivable from the beginning of the period to the end of the period. Here’s what to look for:

- ✔ If the amount of credit sales you made during the period is greater than what you collected from customers during the period, your accounts receivable *increased* over the period, and you need to *subtract* from net income that difference between start-of-period accounts receivable and end-of-period accounts receivable. In short, an increase in accounts receivable hurts cash flow by the amount of the increase.
- ✔ If the amount you collected from customers during the period is greater than the credit sales you made during the period, your accounts receivable *decreased* over the period, and you need to *add* to net income that difference between start-of-period accounts receivable and end-of-period accounts receivable. In short, a decrease in accounts receivable helps cash flow by the amount of the decrease.

In our business example, accounts receivable increased \$450,000. Cash collections from sales were \$450,000 less than sales revenue. Ouch! The business increased its sales substantially over the last period, so you shouldn't be surprised that its accounts receivable increased. The higher sales revenue was good for profit but bad for cash flow.



The “lagging behind” effect of cash flow is the price of growth — managers and investors need to understand this point. Increasing sales without increasing accounts receivable is a happy situation for cash flow, but in the real world you usually can't have one increase without the other.

Inventory change

Punch Line: An increase in inventory hurts cash flow; a decrease helps cash flow.

Inventory is usually the largest short-term, or *current*, asset of businesses that sell products. If the inventory account is greater at the end of the period than at the start of the period — because unit costs increased or because the quantity of products increased — the amount the business actually paid out in cash for inventory purchases (or for manufacturing products) is more than what the business recorded in the cost of goods sold expense for the period.

In our business example, inventory increased \$725,000 from start-of-year to end-of-year. In other words, to support its higher sales levels in 2009, this business replaced the products that it sold during the year *and* increased its inventory by \$725,000. The business had to come up with the cash to pay for this inventory increase. Basically, the business wrote checks amounting to \$725,000 more than its cost of goods sold expense for the period. This step-up in its inventory level was necessary to support the higher sales level, which increased profit even though cash flow took a hit.

Prepaid expenses change

Punch Line: An increase in prepaid expenses (an asset account) hurts cash flow; a decrease helps cash flow.

A change in the prepaid expenses asset account works the same way as a change in inventory and accounts receivable, although changes in prepaid expenses are usually much smaller than changes in those other two asset accounts.

The beginning balance of prepaid expenses is charged to expense this year, but the cash for this amount was actually paid out last year. This period (the year 2009 in our example), the business pays cash for next period's prepaid expenses, which affects this period's cash flow but doesn't affect net income until next period. In short, the \$75,000 increase in prepaid expenses in this business example has a negative cash flow effect.



As it grows, a business needs to increase its prepaid expenses for such things as fire insurance (premiums have to be paid in advance of the insurance coverage) and its stocks of office and data processing supplies. Increases in accounts receivable, inventory, and prepaid expenses are the cash flow price a business has to pay for growth. Rarely do you find a business that can increase its sales revenue without increasing these assets.

The depreciation factor

Punch Line: Recording depreciation expense decreases the book value of long-term operating (fixed) assets. There is no cash outlay when recording depreciation expense. Each year the business converts part of the total cost invested in its fixed assets into cash. It recovers this amount through cash collections from sales. Thus, depreciation is a positive cash flow factor.

The amount of depreciation expense recorded in the period is a portion of the original cost of the business's fixed assets, most of which were bought and paid for years ago. (Chapters 4 and 5 explain more about depreciation.) Because the depreciation expense is not a cash outlay this period, the amount is added to net income to determine cash flow from operating activities (see Figure 6-2).

For measuring profit, depreciation is definitely an expense — no doubt about it. Buildings, machinery, equipment, tools, vehicles, computers, and office furniture are all on an irreversible journey to the junk heap (although buildings usually take a long time to get there). Fixed assets (except for land) have a limited, finite life of usefulness to a business; depreciation is the accounting method that allocates the total cost of fixed assets to each year of their use in helping the business generate sales revenue.



In our example, the business recorded \$775,000 depreciation expense for the year. Instead of looking at depreciation as only an expense, consider the investment-recovery cycle of fixed assets. A business invests money in its fixed assets that are then used for several or many years. Over the life of a fixed asset, a business has to recover through sales revenue the cost invested in the fixed asset (ignoring any salvage value at the end of its useful life). In a real sense, a business “sells” some of its fixed assets each period to its customers — it factors the cost of fixed assets into the sales prices that it charges its customers.

For example, when you go to a supermarket, a very small slice of the price you pay for that quart of milk goes toward the cost of the building, the shelves, the refrigeration equipment, and so on. (No wonder they charge so much!) Each period, a business recoups part of the cost invested in its fixed assets. In the example, \$775,000 of sales revenue went toward reimbursing the business for the use of its fixed assets during the year. In short, depreciation is a positive cash flow factor. The depreciation amount is imbedded in sales revenue, and sales revenue generates cash flow.



The business in our example does not own any intangible assets and, thus, does not record any amortization expense. (See Chapter 5 for an explanation of intangible assets and amortization.) If a business does own intangible assets, the amortization expense on these assets for the year is treated the same as depreciation is treated in the statement of cash flows. In other words, the recording of amortization expense does not require cash outlay in the year being charged with the expense. The cash outlay occurred in prior periods when the business invested in intangible assets.

Changes in operating liabilities

Punch Line: An increase in a short-term operating liability helps cash flow; a decrease hurts cash flow.

The business in our example, like almost all businesses, has three basic liabilities inextricably intertwined with its expenses:

- ✓ Accounts payable
- ✓ Accrued expenses payable
- ✓ Income tax payable

When the beginning balance of one of these liability accounts is the same as its ending balance (not too likely, of course), the business breaks even on cash flow for that account. When the end-of-period balance is higher than the start-of-period balance, the business did not pay out as much money as was recorded as an expense in the year.

In our business example, the business disbursed \$640,000 to pay off last year's accounts payable balance. (This \$640,000 was the accounts payable balance at December 31, 2008, the end of the previous fiscal year.) Its cash this year decreased \$640,000 because of these payments. But this year's ending balance sheet (at December 31, 2009) shows accounts payable of \$765,000 that the business will not pay until the following year. This \$765,000 amount was recorded to expense in the year 2009. So, the amount of expense was \$125,000

more than the cash outlay for the year; or, in reverse, the cash outlay was \$125,000 less than the expense. An increase in accounts payable benefits cash flow for the year. In other words, an increase in accounts payable has a positive cash flow effect. Increases in accrued expenses payable and income tax payable work the same way.



In short, liability increases are favorable to cash flow — in a sense, the business ran up more on credit than it paid off. Such an increase means that the business delayed paying cash for certain things until next year. So you need to add the increases in the three liabilities to net income to determine cash flow, as you see in the statement of cash flows (refer to Figure 6-2). The business avoided cash outlays to the extent of the increases in these three liabilities. In some cases, of course, the ending balance of an operating liability may be lower than its beginning balance, which means that the business paid out more cash than the corresponding expenses for the period. In this case, the decrease is a negative cash flow factor.

Putting the cash flow pieces together



The Financial Accounting Standards Board (FASB) has expressed a definite preference for the direct method of reporting cash flow from operating activities (refer to Figure 6-1). Nevertheless, this august rule-making body permits the indirect method to be used in external financial reports. And, in fact, the overwhelming majority of public companies use the indirect method. One reason may be this: If a business uses the direct method format, it has to include a supplementary schedule of changes in the assets and liabilities affecting cash flow from operating activities. Therefore, most businesses decide to provide the reconciliation between net income and cash flow by using the indirect method. Go figure.

Taking into account all the adjustments to net income, the bottom line (oops, I shouldn't use that term when referring to cash flow) is that the company's cash balance increased \$1,515,000 from its operating activities during the year. The first section in the statement of cash flows (refer to Figure 6-2) shows the stepping stones from net income to the amount of cash flow from operating activities.

What do the figures in the first section of the cash flow statement (refer to Figure 6-2) reveal about this business over the past period? Recall that the business experienced sales growth during this period. The downside of sales growth is that assets and liabilities also grow — the business needs more inventory at the higher sales level and also has higher accounts receivable. The business's prepaid expenses and liabilities also increased, although not nearly as much as accounts receivable and inventory.

The growth of the business in 2009 over 2008 yielded higher profit but also caused a surge in its assets and liabilities — the result being that cash flow is \$175,000 less than its net income. Still, the business had \$1,515,000 cash at its disposal. What did the business do with this \$1,515,000 of available cash? You have to look to the remainder of the cash flow statement to answer this very important question.

Sailing Through the Rest of the Statement of Cash Flows

After you get past the first section of the statement of cash flows, the remainder is a breeze. Well, to be fair, you *could* encounter some rough seas in the remaining two sections. But, generally speaking, the information in these sections is not too difficult to understand. The last two sections of the statement report on the other sources of cash to the business and the uses the business made of its cash during the year.

Investing activities

The second section of the statement of cash flows (see Figure 6-1 or 6-2) reports the investment actions that a business's managers took during the year. Investments are like tea leaves, which serve as indicators regarding what the future may hold for the company. Major new investments are the sure signs of expanding or modernizing the production and distribution facilities and capacity of the business. Major disposals of long-term assets and shedding off a major part of the business could be good news or bad news for the business, depending on many factors. Different investors may interpret this information differently, but all would agree that the information in this section of the cash flow statement is very important.

Certain long-lived operating assets are required for doing business. For example, Federal Express and UPS wouldn't be terribly successful if they didn't have airplanes and trucks for delivering packages and computers for tracking deliveries. When these assets wear out, the business needs to replace them. Also, to remain competitive, a business may need to upgrade its equipment to take advantage of the latest technology or to provide for growth. These investments in long-lived, tangible, productive assets, which are called *fixed assets* for short, are critical to the future of the business. In fact, these cash outlays are called *capital expenditures* to stress that capital is being invested for the long haul.

One of the first claims on cash flow from operating activities is for capital expenditures. Notice that the business spent \$1,275,000 on fixed assets, which are referred to more formally as *property, plant, and equipment* in the cash flow statement (to keep the terminology consistent with account titles used in the balance sheet — the term *fixed assets* is rather informal).

A typical statement of cash flows doesn't go into much detail regarding exactly what specific types of fixed assets the business purchased (or constructed): how many additional square feet of space the business acquired, how many new drill presses it bought, and so on. Some businesses do leave a clearer trail of their investments, though. For example, in the footnotes or elsewhere in their financial reports, airlines describe how many new aircraft of each kind were purchased to replace old equipment or to expand their fleets.



Usually, a business disposes of some of its fixed assets every year because they reached the end of their useful lives and will no longer be used. These fixed assets are sent to the junkyard, traded in on new fixed assets, or sold for relatively small amounts of money. The value of a fixed asset at the end of its useful life is called its *salvage value*. The disposal proceeds from selling fixed assets are reported as a source of cash in the investing activities section of the statement of cash flows. Usually, these amounts are fairly small. Also, a business may sell off fixed assets because it's downsizing or abandoning a major segment of its business; these cash proceeds can be fairly large.

Financing activities

Note in the annual statement of cash flows for the business example (refer to Figure 6-1 or 6-2) that cash flow from operating activities is a positive \$1,515,000 and the negative cash flow from investing activities is \$1,275,000. The result to this point, therefore, is a net cash increase of \$240,000, which would have increased the company's cash balance this much if the business had no financing activities during the year. However, the business increased its short-term and long-term debt during the year, its owners invested additional money in the business, and it distributed some of its profit to stockholders. The third section of the cash flow statement summarizes these *financing activities* of the business over the period.



The managers did not have to go outside the business for the \$1,515,000 cash increase generated from its operating activities for the year. Cash flow from operating activities is an *internal* source of money generated by the business itself, in contrast to *external* money that the business raises from lenders and owners. A business does not have to go hat in hand for external money when its internal cash flow is sufficient to provide for its growth. Making profit is the cash flow spigot that should always be turned on.

I should mention that a business that earns a profit could, nevertheless, have a *negative* cash flow from operating activities — meaning that despite posting a net income for the period, the changes in the company’s assets and liabilities cause its cash balance to decrease. In reverse, a business could report a bottom-line *loss* for the year, yet it could have a *positive* cash flow from its operating activities. The cash recovery from depreciation plus the cash benefits from decreases in its accounts receivable and inventory could be more than the amount of loss. More realistically, a loss usually leads to negative cash flow, or very little positive cash flow.

The term *financing* refers to a business raising capital from debt and equity sources — by borrowing money from banks and other sources willing to loan money to the business and by its owners putting additional money in the business. The term also includes the flip side — that is, making payments on debt and returning capital to owners. The term *financing* also includes cash distributions by the business from profit to its owners. By the way, keep in mind that interest on debt is an expense that is reported in the income statement.

Most businesses borrow money for the short term (generally defined as less than one year), as well as for longer terms (generally defined as more than one year). In other words, a typical business has both short-term and long-term debt. (Chapter 5 explains that short-term debt is presented in the current liabilities section of the balance sheet.)

The business in our example has both short-term and long-term debt. Although this is not a hard-and-fast rule, most cash flow statements report just the *net* increase or decrease in short-term debt, not the total amounts borrowed and total payments on short-term debt during the period. In contrast, both the total amounts of borrowing from and repayments on long-term debt during the year are generally reported in the statement of cash flows — the numbers are reported gross, instead of net.

In our example, no long-term debt was paid down during the year, but short-term debt was paid off during the year and replaced with new short-term notes payable. However, only the \$100,000 net increase is reported in the cash flow statement. The business also increased its long-term debt \$150,000 (refer to Figure 6-1 or 6-2).

The financing section of the cash flow statement also reports the flow of cash between the business and its owners (stockholders of a corporation). Owners can be both a *source* of a business’s cash (capital invested by owners) and a *use* of a business’s cash (profit distributed to owners). The financing activities section of the cash flow statement reports additional capital raised from its owners, if any, as well as any capital returned to the owners. In the cash flow statement, note that the business issued additional stock shares for \$150,000 during the year, and it paid a total of \$750,000 cash dividends from profit to its owners.

Speaking of cash dividends from profit to shareowners, you might note that in the executive summary to the president I deduct the \$750,000 cash dividends directly from the \$1,515,000 cash flow from profit for the year, which leaves \$765,000 for other business purposes. Personally, I think it makes better sense to “match up” the cash flow from profit (operating activities) and how much of this amount was distributed to the owners. In my view this is a natural comparison to make. However, the official financial reporting standard says that cash distributions from profit should be put in the financing activities section of the statement of cash flows, as you see in Figures 6-1 and 6-2. For further discussion on this point see the last section in the chapter, “Being an Active Reader.”

Trying to Pin Down “Free Cash Flow”

A term has emerged in the lexicon of finance: *free cash flow*. This piece of language is not — I repeat, *not* — an officially defined term by any authoritative accounting rule-making body. Furthermore, the term does *not* appear in cash flow statements reported by businesses. Rather, *free cash flow* is street language, and the term appears in *The Wall Street Journal* and *The New York Times*. Securities brokers and investment analysts use the term freely (pun intended). Unfortunately, the term *free cash flow* hasn’t settled down into one universal meaning, although most usages of the term have something to do with cash flow from operating activities.

The term *free cash flow* has been used to mean the following:

- ✔ Net income plus depreciation expense, plus any other expense recorded during the period that does not involve the outlay of cash — such as amortization of costs of the intangible assets of a business, and other asset write-downs that don’t require cash outlay
- ✔ Cash flow from operating activities as reported in the statement of cash flows, although the very use of a different term (*free cash flow*) suggests a different meaning is intended
- ✔ Cash flow from operating activities minus the amount spent on capital expenditures during the year (purchases or construction of property, plant, and equipment)
- ✔ Earnings before interest, tax, depreciation, and amortization (EBITDA) — although this definition ignores the cash flow effects of changes in the short-term assets and liabilities directly involved in sales and expenses, and it obviously ignores that most of interest and income tax expenses are paid in cash during the period



In the strongest possible terms, I advise you to be very clear on which definition of *free cash flow* a speaker or writer is using. Unfortunately, you can't always determine what the term means even in context. Be careful out there.

One definition of free cash flow, in my view, is quite useful: cash flow from operating activities minus capital expenditures for the year. The idea is that a business needs to make capital expenditures in order to stay in business and thrive. And to make capital expenditures, the business needs cash. Only after paying for its capital expenditures does a business have “free” cash flow that it can use as it likes. In the example in this chapter, the free cash flow according to this definition is:

$$\begin{aligned} & \$1,515,000 \text{ cash flow from operating activities} - \\ & \$1,275,000 \text{ capital expenditures} = \$240,000 \text{ free} \\ & \text{cash flow} \end{aligned}$$

In many cases, cash flow from operating activities falls short of the money needed for capital expenditures. To close the gap a business has to borrow more money, persuade its owners to invest more money in the business, or dip into its cash reserve. Should a business in this situation distribute any of its profit to owners? After all, it has a cash *deficit* after paying for capital expenditures. But, in fact, many businesses make cash distributions from profit to their owners even when they don't have any free cash flow (as I just defined it).

Being an Active Reader

Your job is to ask questions (at least in your own mind) when reading a financial statement. You should be an active reader, not a ho-hum passive reader, in reading the statement of cash flows. You should mull over certain questions to get full value out of the statement.

The statement of cash flows reveals what financial decisions the business's managers made during the period. Of course, management decisions are always subject to second-guessing and criticizing, and passing judgment based on reading a financial statement isn't totally fair because it doesn't capture the pressures the managers faced during the period. Maybe they made the best possible decisions in the circumstances. Then again, maybe not.

One issue, in my mind, comes to the forefront in reading the company's statement of cash flows. The business in our example (see Figure 6-2) distributed \$750,000 cash from profit to its owners — a 44 percent *payout ratio* (which equals the \$750,000 distribution divided by its \$1,690,000 net income). In analyzing whether the payout ratio is too high, too low, or just about right, you need to look at the broader context of the business's sources of and needs for cash.

The company's \$1,515,000 cash flow from operating activities is enough to cover the business's \$1,275,000 capital expenditures during the year and still leave \$240,000 available. The business increased its total debt \$250,000. Combined, these two cash sources provided \$490,000 to the business. The owners also kicked in another \$150,000 during the year, for a grand total of \$640,000. Its cash balance did not increase this amount because the business paid out \$750,000 dividends from profit to its stockholders. So, its cash balance dropped \$110,000.

If I were on the board of directors of this business, I certainly would ask the chief executive why cash dividends to shareowners were not limited to \$240,000 in order to avoid the increase in debt and to avert having shareowners invest additional money in the business. I would probably ask the chief executive to justify the amount of capital expenditures as well. Being an old auditor, I tend to ask tough questions and raise sensitive issues.

Would you like to hazard a guess regarding the average number of lines in the cash flow statements of publicly owned corporations? Typically, their cash flow statements have 30 to 40 or more lines of information by my reckoning. So it takes quite a while to read the cash flow statement — more time than the average investor probably has available. You know, each line of information in a financial statement should be a useful and relevant piece of information. In reading many statements of cash flows over the years, I have to question why so many companies overload this financial statement with so much technical information. One could even suspect, with some justification, that many businesses deliberately obscure their statements of cash flows.

Chapter 7

Choosing Accounting Methods: Different Strokes for Different Folks

In This Chapter

- ▶ Realizing there's more than one way to skin a cat
 - ▶ Comparing impacts of different accounting methods on financial statements
 - ▶ Calculating cost of goods sold expense and inventory cost
 - ▶ Dealing with depreciation
 - ▶ Scanning other expenses
-

This chapter explains that the financial statements reported by a business are just one version of its financial history and position. Different accountants and different managers for the business could have presented different versions that would have told a different story. I take a no-holds-barred look at how the income statement and balance sheet depend on which accounting methods a business chooses and on whether the financial statements are tweaked to make them look better (while staying within the boundaries of accounting and financial reporting standards).

The amounts reported in the financial statements of a business are not simply facts that depend only on good bookkeeping. Here's why:

- ✔ A business has choices among different accounting methods for recording the amounts of revenue and expenses.
- ✔ A business can make pessimistic or optimistic estimates and forecasts when recording certain revenue and expenses.
- ✔ A business has some wiggle room in implementing its accounting methods, especially regarding the precise timing of when to record sales and expenses.
- ✔ A business can engage in certain tactics at year-end to put a more favorable spin on its financial statements.

These are important points to understand when you read financial statements, and I help you get a firm handle on them in this chapter.

Reading Statements with a Touch of Skepticism

Suppose that you have the opportunity and the ready cash to buy a going business. The business I have in mind is the very one I use as the example in the previous three chapters in which I explain the income statement (Chapter 4), the balance sheet (Chapter 5), and the statement of cash flows (Chapter 6). Of course, you should consider many factors in deciding your offering price. The company's most recent financial statements would be your main source of information in reaching a decision — not the *only* source, of course, but the most important source for financial information about the business.



I'd recommend that you employ an independent CPA auditor to examine the company's recordkeeping and accounting system, to determine whether the accounts of the business are complete, accurate, and in conformity with generally accepted accounting principles (GAAP). The CPA should also test for possible fraud and any accounting shenanigans in the financial statements. (I discuss accounting and financial reporting fraud in Chapter 15.) As the potential buyer of the business you can't be too careful. You don't want the seller of the business to play you for a sucker.

Recognizing a business's bias

Some people put a great deal of faith in numbers: $2 + 2 = 4$, and that's the end of the story. When they see a dollar amount reported to the last digit in a financial statement, they get the impression of exactitude and precision. But accounting isn't just a matter of adding up numbers. It's not an exact science. Some even argue that accounting is more art than science, although I wouldn't go that far (and I certainly wouldn't trust any numbers that Picasso came up with — would you?). Accounting involves a whole lot more subjective judgments and arbitrary choices than most people think.



Only one set of financial statements is included in a business's financial report: one income statement, one balance sheet, and one statement of cash flows. A business does not provide a second, alternative set of financial statements that would have been generated if the business had used different accounting methods and if the business had not tweaked its financial statements. Therefore, you see only one version of the financial performance and position of the business. But behind the scenes the controller and managers know that the company's financial statements would have been different if different accounting methods

had been used to record sales revenue and expenses and if the business had not engaged in certain end-of-period maneuvers to make its financial statements look better. (My father-in-law, a retired businessman, calls these tricks of the trade “fluffing the pillows.”)



Everyone having a financial stake in a business should understand and keep in mind the bias or tilt of the financial statements they’re reading. Using a baseball analogy, the version of financial statements in your hands may be in left field, right field, or center field. All versions are in the ballpark of GAAP, which define the playing field but don’t dictate that every business has to play straight down the middle. In their financial reports, businesses don’t comment on whether their financial statements as a whole are liberal, conservative, or somewhere in between. However, a business does have to disclose in the footnotes to its statements which accounting methods it uses. (See Chapter 12 for getting a financial report ready for release.)

Contrasting aggressive and conservative numbers

As the potential buyer of a business, you have to decide on an offering price. You have to decide what the business is worth. Generally speaking, the two most important factors are the profit performance of the business (reported in its income statement) and the composition of assets, liabilities, and owners’ equity of the business (reported in its balance sheet). For instance, how much would you pay for a business that has never made a profit and whose liabilities are more than its assets? There’s no simple formula for calculating the market value for a business based on its profit performance and financial condition. But, quite clearly, the profit performance and financial condition of a business are dominant factors in setting its market value.

Figure 7-1 shows a comparison that you never see in real-life financial reports. The Version A column in Figure 7-1 presents the income statement and balance sheet reported by the business. The Version C column reveals an alternative income statement for the year and an alternative balance sheet at year-end that the business could have reported (but didn’t). I don’t present an alternative statement of cash flows, for reasons I explain later in the chapter.

Assuming you’ve read Chapters 4 and 5, the account balances in the Version A column should be familiar — these are the same numbers from the financial statements I explain in those chapters. The dollar amounts in the Version C column are the amounts that could have been recorded using different accounting methods.

Typical Business, Inc.
(Dollar amounts in thousands)

Balance Sheet at December 31, 2009

Assets	Version A	Version C	Difference
Cash	\$2,165	\$2,045	(\$120)
Accounts receivable	\$2,600	\$2,570	(\$30)
Inventory	\$3,450	\$2,750	(\$700)
Prepaid expenses	\$600	\$550	(\$50)
Current assets	<u>\$8,815</u>	<u>\$7,915</u>	<u>(\$900)</u>
Property, plant, and equipment	\$12,450	\$12,225	(\$225)
Accumulated depreciation	(\$6,415)	(\$7,435)	(\$425)
Net of depreciation	<u>\$6,035</u>	<u>\$4,790</u>	<u>(\$650)</u>
Total assets	<u><u>\$14,850</u></u>	<u><u>\$12,705</u></u>	<u><u>(\$1,550)</u></u>
Liabilities and Owners' Equity			
Accounts payable	\$765	\$765	\$0
Accrued expenses payable	\$900	\$965	\$65
Income tax payable	\$115	\$115	\$0
Short-term notes payable	\$2,250	\$2,250	\$0
Current liabilities	<u>\$4,030</u>	<u>\$4,095</u>	<u>\$65</u>
Long-term notes payable	<u>\$4,000</u>	<u>\$4,000</u>	<u>\$0</u>
Owners' equity:			
Invested capital	\$3,250	\$3,250	\$0
Retained earnings	\$3,570	\$1,955	(\$1,615)
Total owners' equity	<u>\$6,820</u>	<u>\$5,205</u>	<u>(\$1,615)</u>
Total liabilities and owners' equity	<u><u>\$14,850</u></u>	<u><u>\$13,300</u></u>	<u><u>(\$1,550)</u></u>

Income Statement for Year Ended December 31, 2009

	Version A	Version C	Difference
Sales revenue	\$26,000	\$25,775	(\$225)
Cost of goods sold expense	(\$14,300)	(\$14,580)	(\$280)
Gross margin	\$11,700	\$11,195	(\$505)
Selling, general, and administrative expenses	(\$8,700)	(\$8,830)	(\$130)
Operating earnings	\$3,000	\$2,365	(\$635)
Interest expense	(\$400)	(\$400)	\$0
Earnings before income tax	\$2,600	\$1,965	(\$635)
Income tax expense	(\$910)	(\$615)	\$295
Net income	<u><u>\$1,690</u></u>	<u><u>\$1,350</u></u>	<u><u>(\$340)</u></u>

Figure 7-1:
Two versions of financial statements for the business.

The “A” in Version A stands for *actual* and *aggressive*. What I mean by *aggressive* is that the business adopted accounting methods that maximize its recorded profit, and it used certain techniques to make its year-end financial condition look as positive as possible.

Some businesses go the opposite direction. They adopt conservative accounting methods to record profit performance, and they wouldn’t think of tinkering with their financial statements at the end of the year, even when their profit performance falls short of expectations and their financial condition has some trouble spots. In Figure 7-1, the “C” in Version C stands for *conservative* and *cautious*.

Now, you may very well ask, “Where in the devil did you get the numbers for Version C?” The dollar amounts in Version C are my best estimates of what conservative and cautious numbers would be for this business — a company that has been in business for several years, has made a profit most years, and has not gone through bankruptcy.

Figuring Out Why Financial Statements Differ

Look at the third column on the right in Figure 7-1. These are the differences between the two financial statement versions. In the balance sheet the differences are concentrated in assets; only one liability is different. In total, assets are \$1.55 million lower and liabilities are \$65,000 higher. These differences are the results of recording slightly lower amounts of sales revenue and significantly higher amounts of expenses in the conservative Version C scenario.



Remember the following about revenue and expenses:

- ✓ Recording sales revenue increases an asset (or decreases a liability in some cases).
- ✓ Recording an expense either decreases an asset or increases a liability.

Most of the balance sheet differences in Figure 7-1 are caused by higher amounts of expenses in the Version C scenario. The cumulative amount of net income recorded over the years by the business in the Version C scenario is \$1,615,000 less than in Version A:

$$\begin{aligned}
 & \$1,550,000 \text{ smaller amount of assets} + \$65,000 \\
 & \text{higher amount of liabilities} = \$1,615,000 \\
 & \text{less net income recorded over the years}
 \end{aligned}$$

At the end of each year, the amount of annual net income is recorded in the retained earnings owners' equity account. As you can see in Figure 7-1, the retained earnings balance in Version C is exactly \$1,615,000 less than in Version A. This is a sizable amount, to be sure. But keep in mind that it took all the years of its existence to accumulate that \$1,615,000 amount. The net income difference for its latest year (2009) is responsible for only part of the cumulative, total difference in retained earnings.

Sales revenue and every expense except interest are different between Versions A and C. Net income in Version C is \$340,000 (about 20 percent) lower than in Version A.

Suppose that in putting a market value on the business, you use the earnings multiple method. (For more information on the valuation of a small business, see *Small Business Financial Management Kit For Dummies*, written by myself and my son, Tage C. Tracy [Wiley]). Suppose you are willing to pay six times the most recent annual profit of the business. (I certainly don't mean to suggest that six times earnings is a standard multiple for all small businesses.) In Version A, you would offer \$10.74 million for the business (\$1.69 million net income \times 6 = \$10.74 million). In Version C, you would offer only \$8.1 million (\$1.35 million net income \times 6 = \$8.1 million). If the business had used more conservative accounting methods, you would offer \$2.64 million less for the business!

The following sections briefly explain each of the differences in Figure 7-1, except the retained earnings difference that I explain just above. I keep the explanations relatively brief and to the point. The idea is to give you a basic taste of some of the main reasons for the differences. **Note:** From here on, instead of referring to Version A and Version C, I will call the two different situations Company A and Company C. Remember that Company A uses aggressive accounting methods that boost recorded profit, and Company C uses conservative accounting methods that dampen recorded profit.

Cash balance

Company A engaged in what is called *window dressing*, which I discuss in Chapter 12. Company A held its books open for a few days after the close of the fiscal year in order to record additional cash collections from its accounts receivable. It's as if the cash had been received on December 31, 2009, even though the cash was not actually deposited in its checking account until the first week in January 2010. Isn't this cheating? Well, yes; it's like telling a small fib or a white lie.

The reason a business would do some window dressing is to improve the cash balance in its ending balance sheet. A business knows that when its creditors and shareowners read its ending balance sheet they pay particular attention to how its cash balance stacks up against its liabilities. Also, keeping the books open for a few days (only for cash collections of accounts receivable)

makes the company's ending accounts receivable balance appear to be more under control because the balance is a smaller percent of total sales for the year. This gives the impression that the credit terms extended to customers are under good management, and the ending balance of accounts receivable is not too large (which would indicate that too many customers are late in paying their amounts owed the business).

Accounts receivable balance

One reason the ending balance of accounts receivable is lower is explained in the previous section: Company A did some window dressing. But there are two other reasons as well:

- ✔ Company C waits a little longer to record sales made on credit than Company A, to be more certain that all aspects of delivering products and the acceptance by customers are finalized and there is little chance of the products being returned by the customers. This delay in recording sales causes its accounts receivable balance to be slightly lower, because at December 31, 2009 it had not yet recorded some credit sales that were still in the process of final acceptance by the customers.



Businesses should be consistent from year to year regarding when they record sales. For some businesses, the timing of recording sales revenue is a major problem — especially when the final acceptance by the customer depends on performance tests or other conditions that must be satisfied. Some businesses engage in *channel stuffing* by forcing their dealers or customers to take delivery of more products than they ordered. A good rule to follow is to read the company's footnote in its financial statements that explains its revenue recognition method, and see whether there is anything unusual about it. If the footnote is vague, be careful — be very careful!



If products are returnable and the deal between the seller and buyer does not satisfy normal conditions for a completed sale, the recording of sales revenue should be postponed until the return privilege no longer exists. For example, some products are sold *on approval*, which means the customer takes the product and tries it out for a few days or longer to see if the customer really wants it.

- ✔ Company C is stricter about writing off a customer's past due balance as uncollectible. After it has made a reasonable effort to collect the debt but a customer still hasn't sent a check, Company C writes off the balance as a *bad debts* expense. It decreases the past due accounts receivable balance to zero and records an expense of the same amount. Company A, in contrast, waits much longer to write off a customer's past due amount. In the long run Company A still has to write off a customer's debt if it has been outstanding too long — but it waits until the last minute to make the write-off entry.

Inventory and cost of goods sold expense

The business in the example sells products, mainly to other businesses. A business either manufactures the products it sells or purchases products for resale to customers. (Chapter 11 explains the determination of product costs for manufacturing businesses.) At this point it is not too important whether the business manufactures or purchases the products it sells. What is important is that the costs of its products have drifted upward over time because of inflation and other factors. Therefore, the business has had to increase its sales prices to keep up with the product cost increases.

There are two ways to deal with product cost inflation:

- ✓ Push the higher, most recent costs through to cost of goods sold expense as soon as possible.
- ✓ Follow the chronological order of acquisition and let the older product costs go out to cost of goods sold before the more recent product costs are charged out to expense.

I explain these two methods in the later section “Calculating Cost of Goods Sold and Cost of Inventory.”

Company A uses the method that minimizes cost of goods sold expense and maximizes cost of ending inventory. Company C, in contrast, uses the method that maximizes cost of goods sold expense and minimizes cost of ending inventory. Note in Figure 7-1 that Company C’s ending inventory is \$700,000 lower and its cost of goods sold expense for the year is \$280,000 higher. Over the years its cost of goods sold expense has been charged with \$700,000 that Company A has not yet charged to the expense. Company C’s cost of goods sold expense in 2009 is \$280,000 higher than Company A; the remainder of the \$700,000 cumulative difference in inventory cost is attributable to prior years.

Actually, not all of the cumulative \$700,000 inventory difference and not all of the \$280,000 cost of goods sold difference in 2009 is due to the different inventory and cost of goods sold expense methods used by the companies. Part of each difference is due to how each company applies, and puts into practice, the lower of cost or market (LCM) accounting rule. I explain this topic later in the chapter; see the section “Recording Inventory Losses under the Lower of Cost or Market (LCM) Rule.” Company C is tougher and stricter in implementing the LCM procedure. It records higher amounts of inventory write-down at the end of the year, which increases its cost of goods sold expense (or some other expense account).

Cost of fixed assets, accumulated depreciation, and depreciation expense

All accountants agree that the costs of long-term operating assets that have limited useful lives to a business should be spread out over those predicted useful lives instead of being charged off entirely to expense in the year of acquisition. These long-lived operating assets are labeled *property, plant and equipment* in Figure 7-1, and less formally are called *fixed assets*. (The cost of land owned by a business is not depreciated because land is a property right that has perpetual life.) The allocation of the cost of a fixed asset over its estimated useful economic life to a business is called *depreciation*. The principle of depreciation is beyond criticism, but the devil is in the details.



The original costs of fixed assets should theoretically include certain costs in addition to their purchase or construction costs. However, in actual practice these fringe costs are not always included in the original cost of fixed assets. For example, it is theoretically correct to include installation costs of putting into place and connecting electrical and other power sources of heavy machinery and equipment. It is correct to include the cost of painting logos on the sides of delivery trucks. The cost of an older building just bought by a business should include the preparatory clean-up costs and the safety inspection cost. But, as I say, in practice a business may not include such additional costs in the original costs of its fixed assets.

Company A does include most of these additional costs in the original costs of its fixed assets, which means that the cost balances of its fixed assets are higher. These additional costs are not expensed immediately but are included in the total amount to be depreciated over future years. Also, Company A uses what is called *straight-line depreciation*, which spreads out the cost of a fixed asset evenly over the years of its useful life to the business.

In contrast, Company C does not include any costs other than purchase or construction costs in its fixed asset accounts, which means these additional costs are charged to expense immediately and are not delayed to future years. Also, and most importantly, Company C uses what is called *accelerated depreciation* for allocating the cost of its fixed assets to expense. Higher amounts are allocated to early years and smaller amounts to later years. Only the original cost is allocated to expense over time, but there is a front-end loading on the early years using accelerated depreciation.

I explain the straight-line and accelerated depreciation methods later in the chapter (see the section “Appreciating Depreciation Methods”). For now, note in Figure 7-1 that the original cost of Company C’s property, plant, and equipment is \$225,000 smaller than Company A’s, and its accumulated depreciation balance is \$425,000 higher. The company’s depreciation expense is not disclosed as a separate expense in the income statement shown in Figure 7-1. We can’t tell

from the information in the income statement the amount of 2009 depreciation expense between the two companies. But Company C's depreciation expense for the year is higher because the business has been growing and increasing its investments in new fixed assets.

Accrued expenses payable liability balance

Most products are sold with expressed or implied warranties and guarantees. Even if good quality controls are in place, some products sold by a business don't perform up to promises, and the customers want the problems fixed. A business should estimate the cost of these future obligations and record this amount as an expense in the same period that the goods are sold (along with the cost of goods sold expense, of course); it should not wait until customers actually return products for repair or replacement. After being in business a few years, a company can forecast with reasonable accuracy the percent of products sold that will be returned for repair or replacement under the guarantees and warranties offered to its customers. However, brand new products that have no track record may be a serious problem in this regard.

Company A does not make the effort to estimate future product warranty and guaranty costs; it records these costs on a when-paid basis. It waits until it actually incurs these costs to record an expense. The company has decided that the understatement of its liabilities is not significant.

Company C, on the other hand, takes the high road and goes to the trouble to estimate the amount of future costs for the products it has already sold. Therefore, its accrued expenses payable liability account is \$65,000 higher than Company A's. The difference of this particular expense for the year between the two versions is a bit tricky to determine. (I won't delve into details here.) Furthermore, the \$65,000 higher amount of the liability includes accruals that a business records to recognize other unpaid expenses at the end of the year.



A typical business at the end of the year has certain costs that will not be paid until sometime in the future — costs that are an outgrowth of the current year's operating activities. For example, a business should accrue (calculate and record) the amount it owes to its employees for vacation and sick pay. A business may not have received its property tax bill yet, but it should estimate the amount of tax to be assessed and record the proper portion of the annual property tax to the current year. One expense accrual is easy to calculate: the accumulated interest on notes payable that hasn't been paid yet at the end of the year. Calculating this amount is straightforward because the amount borrowed and the interest rate are definite.

Wrapping things up

In Figure 7-1, you should note that the accounts payable liability is the same in both versions. These short-term operating liabilities are definite amounts that have definite due dates. There are no accounting choices or options in recording accounts payable. Also in Figure 7-1, I keep the income tax payable the same in both versions. If the business had used different accounting methods for determining its annual taxable income, its annual income tax expense would have been different, and the ending amount of its income tax payable liability might be a little different. This point is not that important to go into here.



Figure 7-1 presents just one alternative scenario regarding how different accounting methods cause differences in the financial statements of a company. The differences in Figure 7-1 are not unrealistic in my opinion. But to be frank, my alternative numbers are no more than educated guesses. Businesses keep only one set of books. Even a business itself doesn't know how different its financial statements would be if it had used different accounting methods. Financial report readers can read the footnotes to determine whether liberal or conservative accounting methods are being used, but footnotes are not easy to read. Plus, they don't allow you to determine what profit would have been and how the balance sheet amounts would be different if alternative accounting methods had been used.

So, why don't I include the statement of cash flows in the financial statements comparison in Figure 7-1? Generally speaking, this financial statement, which summarizes cash flows for the year, is the same no matter which accounting methods are used by a business. Cash flows are recorded when cash is actually received or disbursed; cash flow entries don't depend on which accrual-based accounting methods are used. However, a business may engage in *window dressing* at the end of the year (see the earlier section "Cash balance"). In this situation, the cash flow from operating activities is higher because the business has recorded cash flows that actually did not take place until after the end of its accounting year.



If you own or manage a business, I strongly encourage you to get involved in deciding which accounting methods to use for measuring your profit and how these methods are actually implemented. Chapter 16 explains that a manager has to answer questions about his or her financial reports on many occasions, so you should know which accounting methods are used to prepare the financial statements. However, "get involved" does not mean manipulating the amounts of sales revenue and expenses recorded in the year — to make profit look higher, to smooth fluctuations in profit from year to year, or to improve the amounts of assets and liabilities reported in your ending balance sheet. You shouldn't even consider doing these things. (Of course these manipulations go on in the real world. Some people also drive under the influence, but that doesn't mean you should.)

Calculating Cost of Goods Sold and Cost of Inventory

One main accounting decision that must be made by companies that sell products is which method to use for recording the cost of goods sold expense, which is the sum of the costs of the products sold to customers during the period. You deduct cost of goods sold from sales revenue to determine *gross margin* — the first profit line on the income statement (refer to Figure 7-1). Cost of goods sold is a very important figure, because if gross margin is wrong, bottom-line profit (net income) is wrong.

A business acquires products either by buying them (retailers and distributors) or by producing them (manufacturers). Chapter 11 explains how manufacturers determine product cost; for retailers, product cost is simply purchase cost. (Well, it's not entirely this simple, but you get the point.) Product cost is entered in the inventory asset account and is held there until the products are sold.

When a product is sold, but not before, the product cost is taken out of inventory and recorded in the cost of goods sold expense account. You must be absolutely clear on this point. Suppose that you clear \$700 from your salary for the week and deposit this amount in your checking account. The money stays in your bank account and is an asset until you spend it. You don't have an expense until you write a check.

Likewise, not until the business sells products does it have a cost of goods sold expense. When you write a check, you know how much it's for — you have no doubt about the amount of the expense. But when a business withdraws products from its inventory and records cost of goods sold expense, the expense amount is in some doubt. The amount of expense depends on which accounting method the business selects.

A business can choose between two opposite methods to record its cost of goods sold and the cost balance that remains in its inventory asset account:

- ✓ The first-in, first-out (FIFO) cost sequence
- ✓ The last-in, first-out (LIFO) cost sequence

Other methods are acceptable, but these two are the primary options. **Caution:** Product costs are entered in the inventory asset account in the order acquired, but they are not necessarily taken out of the inventory asset account in this order. The different methods refer to the order in which product costs are *taken out* of the inventory asset account. You may think that only one method is appropriate — that the sequence in should be the sequence out. However, generally accepted accounting principles (GAAP) permit alternative methods.



The choice between the FIFO and LIFO accounting methods does *not* depend on the actual physical flow of products. Generally speaking, products are delivered to customers in the order the business bought or manufactured the products — one reason being that a business does not want to keep products in inventory too long because the products might deteriorate or show their age. So, products generally move in and move out of inventory in a first-in, first-out sequence. Nevertheless, a business may choose the last-in, first-out accounting method.

The FIFO (first-in, first-out) method

With the FIFO method, you charge out product costs to cost of goods sold expense in the chronological order in which you acquired the goods. The procedure is that simple. It's like the first people in line to see a movie get in the theater first. The ticket-taker collects the tickets in the order in which they were bought.

Suppose that you acquire four units of a product during a period, one unit at a time, with unit costs as follows (in the order in which you acquire the items): \$100, \$102, \$104, and \$106. By the end of the period, you have sold three of these units. Using FIFO, you calculate the cost of goods sold expense as follows:

$$\$100 + \$102 + \$104 = \$306$$

In short, you use the first three units to calculate cost of goods sold expense.

The cost of the ending inventory asset, then, is \$106, which is the cost of the most recent acquisition. The \$412 total cost of the four units is divided between \$306 cost of goods sold expense for the three units sold and the \$106 cost of the one unit in ending inventory. The total cost has been accounted for; nothing has fallen between the cracks.

FIFO works well for two reasons:

- ✓ Products generally move into and out of inventory in a first-in, first-out sequence: The earlier acquired products are delivered to customers before the later acquired products are delivered, so the most recently purchased products are the ones still in ending inventory to be delivered in the future. Using FIFO, the inventory asset reported in the balance sheet at the end of the period reflects recent purchase (or manufacturing) costs, which means the balance in the asset is close to the current *replacement costs* of the products.



- ✓ When product costs are steadily increasing, many (but not all) businesses follow a first-in, first-out sales price strategy and hold off raising sales prices as long as possible. They delay raising sales prices until they have sold their lower-cost products. Only when they start selling from the next batch of products, acquired at a higher cost, do they raise sales prices. I favor using the FIFO cost of goods sold expense method when a business follows this basic sales pricing policy, because both the expense and the sales revenue are better matched for determining gross margin. I realize that sales pricing is complex and may not follow such a simple process, but the main point is that many businesses use a FIFO-based sales pricing approach. If your business is one of them, I urge you to use the FIFO expense method to be consistent with your sales pricing.

The LIFO (last-in, first-out) method

Remember the movie ticket-taker I mentioned earlier? Think about that ticket-taker going to the *back* of the line of people waiting to get into the next showing and letting them in first. The later you bought your ticket, the sooner you get into the theater. This is the LIFO method, which stands for *last-in, first-out*. The people in the front of a movie line wouldn't stand for it, of course, but the LIFO method is acceptable for determining the cost of goods sold expense for products sold during the period.

The main feature of the LIFO method is that it selects the *last* item you purchased first, and then works backward until you have the total cost for the total number of units sold during the period. What about the ending inventory — the products you haven't sold by the end of the year? Using the LIFO method, the earliest cost remains in the inventory asset account (unless all products are sold and the business has nothing in inventory).

Using the same example from the preceding section, assume that the business uses the LIFO method instead of FIFO. The four units, in order of acquisition, had costs of \$100, \$102, \$104, and \$106. If you sell three units during the period, the LIFO method calculates the cost of goods sold expense as follows:

$$\$106 + \$104 + \$102 = \$312$$

The ending inventory cost of the one unit not sold is \$100, which is the oldest cost. The \$412 total cost of the four units acquired less the \$312 cost of goods sold expense leaves \$100 in the inventory asset account. Determining which units you actually delivered to customers is irrelevant; when you use the LIFO method, you always count backward from the last unit you acquired.

The two main arguments in favor of the LIFO method are these:

- ✔ Assigning the most recent costs of products purchased to the cost of goods sold expense makes sense because you have to replace your products to stay in business, and the most recent costs are closest to the amount you will have to pay to replace your products. Ideally, you should base your sales prices not on original cost but on the cost of replacing the units sold.
- ✔ During times of rising costs, the most recent purchase cost maximizes the cost of goods sold expense deduction for determining taxable income, and thus minimizes income tax. In fact, LIFO was invented for income tax purposes. True, the cost of inventory on the ending balance sheet is lower than recent acquisition costs, but the taxable income effect is more important than the balance sheet effect.

But here are the reasons why LIFO is problematic:



- ✔ Unless you are able to base sales prices on the most recent purchase costs or you raise sales prices as soon as replacement costs increase — and most businesses would have trouble doing this — using LIFO depresses your gross margin and, therefore, your bottom-line net income.
- ✔ The LIFO method can result in an ending inventory cost value that's seriously out of date, especially if the business sells products that have very long lives. For instance, for several years, Caterpillar's LIFO-based inventory has been about \$2 billion less than what it would have been under the FIFO method.
- ✔ Unscrupulous managers can use the LIFO method to manipulate their profit figures if business isn't going well. They deliberately let their inventory drop to abnormally low levels, with the result that old, lower product costs are taken out of inventory to record cost of goods sold expense. This gives a one-time boost to gross margin. These "LIFO liquidation gains" — if sizable in amount compared with the normal gross profit margin that would have been recorded using current costs — have to be disclosed in the footnotes to the company's financial statements. (Dipping into old layers of LIFO-based inventory cost is necessary when a business phases out obsolete products; the business has no choice but to reach back into the earliest cost layers for these products. The sales prices of products being phased out usually are set low, to move the products out of inventory, so gross margin is not abnormally high for these products.)

If you sell products that have long lives and for which your product costs rise steadily over the years, using the LIFO method has a serious impact on the ending inventory cost value reported on the balance sheet and can cause the balance sheet to look misleading. Over time, the current cost of replacing products becomes further and further removed from the LIFO-based inventory costs. Your 2009 balance sheet may very well include products with 1999, 1989, or 1979 costs. As a matter of fact, the product costs reported for inventory could go back even further.

Note: A business must disclose in a footnote with its financial statements the difference between its LIFO-based inventory cost value and its inventory cost value according to FIFO. However, not too many people outside of stock analysts and professional investment managers read footnotes very closely. Business managers get involved in reviewing footnotes in the final steps of getting annual financial reports ready for release (refer to Chapter 12). If your business uses FIFO, ending inventory is stated at recent acquisition costs, and you do not have to determine what the LIFO value would have been.



Many products and raw materials have very short lives; they're regularly replaced by new models (you know, with those "New and Improved!" labels) because of the latest technology or marketing wisdom. These products aren't around long enough to develop a wide gap between LIFO and FIFO, so the accounting choice between the two methods doesn't make as much difference as with long-lived products.

The average cost method

If you were to make an exhaustive survey of businesses, you would find out that some businesses use methods other than FIFO and LIFO to measure cost of goods sold expense and inventory cost. Furthermore, you would discover variations on how LIFO is implemented. I don't have the space in this book to explain all the methods. Instead, I'll quickly mention a third basic method: the *average cost method*.

Compared with the FIFO and LIFO methods, the average cost method seems to offer the best of both worlds. The costs of many things in the business world fluctuate, and business managers tend to focus on the average product cost over a time period. Also, the averaging of product costs over a period of time has a desirable smoothing effect that prevents cost of goods sold from being overly dependent on wild swings of one or two acquisitions.

However, to many businesses, the compromise aspect of the average cost accounting method is its *worst* feature. Businesses often want to go one way or the other and avoid the middle ground. If they want to minimize taxable income, LIFO gives the best effect during times of rising prices. Why go only halfway with the average cost method? If the business wants its ending inventory to be as near to current replacement costs as possible, FIFO is better than the average cost method. Plus, recalculating averages every time product costs change, even with computers, is a real pain in the posterior. But the average cost method is an acceptable method under GAAP and for income tax purposes.

Recording Inventory Losses under the Lower of Cost or Market (LCM) Rule

Acquiring and holding an inventory of products involves certain unavoidable economic risks:

- ✓ **Deterioration, damage, and theft risk:** Some products are perishable or otherwise deteriorate over time, which may be accelerated under certain conditions that are not under the control of the business (such as the air conditioning going on the blink). Most products are subject to damage when they're handled, stored, and moved (for example when the forklift operator misses the slots in the pallet and punctures the container). Products may be stolen (by employees and outsiders).
- ✓ **Replacement cost risk:** After you purchase or manufacture a product, its replacement cost may drop permanently below the amount you paid (which usually also affects the amount you can charge customers for the products).
- ✓ **Sales demand risk:** Demand for a product may drop off permanently, forcing you to sell the products below cost just to get rid of them.

Regardless of which method a business uses to record cost of goods sold and inventory cost, it should apply the *lower of cost or market* (LCM) test to inventory. A business should regularly inspect its inventory very carefully to determine loss due to theft, damage, and deterioration. And the business should go through the LCM routine at least once a year, usually near or at year-end. The process consists of comparing the cost of every product in inventory — meaning the cost that's recorded for each product in the inventory asset account according to the FIFO or LIFO method (or whichever method the company uses) — with two benchmark values:

- ✓ The product's *current replacement cost* (how much the business would pay to obtain the same product right now)
- ✓ The product's *net realizable value* (how much the business can sell the product for)

If a product's cost on the books is higher than either of these two benchmark values, an accounting entry is made to decrease product cost to the lower of the two. In other words, inventory losses are recognized *now* rather than *later*, when the products are sold. The drop in the replacement cost or sales value of the product should be recorded now, on the theory that it's better to take your medicine now than to put it off. Also, the inventory cost value on the balance sheet is more conservative because inventory is reported at a lower cost value.

Determining current replacement cost values for every product in your inventory isn't easy! When I worked for a CPA firm many years ago, we tested the ways clients applied the LCM method to their ending inventories. I was surprised by how hard it was to pin down current market values — vendors wouldn't quote current prices or had gone out of business, prices bounced around from day to day, suppliers offered special promotions that confused matters, and on and on. Applying the LCM test leaves much room for interpretation.



Some shady characters abuse LCM to cheat on their income tax returns. They *knock down* their ending inventory cost value — decrease ending inventory cost more than can be justified by the LCM test — to increase the deductible expenses on their income tax returns and thus decrease taxable income. A product may have proper cost value of \$100, for example, but a shady character may invent some reason to lower it to \$75 and thus record a \$25 inventory write-down expense in this period for each unit — which is not justified. But, even though the person can deduct more this year, he or she will have a lower inventory cost to deduct in the future. Also, if the person is selected for an IRS audit and the Feds discover an unjustified inventory knockdown, the person may end up with a felony conviction for income tax evasion.

Appreciating Depreciation Methods

In theory, depreciation expense accounting is straightforward enough: You divide the cost of a fixed asset (except land) among the number of years that the business expects to use the asset. In other words, instead of having a huge lump-sum expense in the year that you make the purchase, you charge a fraction of the cost to expense for each year of the asset's lifetime. Using this method is much easier on your bottom line in the year of purchase, of course.



Theories are rarely as simple in real life as they are on paper, and this one is no exception. Do you divide the cost *evenly* across the asset's lifetime, or do you charge more to certain years than others? Furthermore, when it eventually comes time to dispose of fixed assets, the assets may have some disposable, or *salvage*, value. In theory, only cost minus the salvage value should be depreciated. But in actual practice most companies ignore salvage value and the total cost of a fixed asset is depreciated. Moreover, how do you estimate how long an asset will last in the first place? Do you consult an accountant psychic hot line?

As it turns out, the IRS runs its own little psychic business on the side, with a crystal ball known as the Internal Revenue Code. Okay, so the IRS can't tell you that your truck is going to conk out in five years, seven months, and two days. The Internal Revenue Code doesn't give you predictions of how long your fixed assets will *last*; it only tells you what kind of time line to use for income tax purposes, as well as how to divide the cost along that time line.



Hundreds of books have been written on depreciation, but the book that really counts is the Internal Revenue Code. Most businesses adopt the useful lives allowed by the income tax law for their financial statement accounting; they don't go to the trouble of keeping a second depreciation schedule for financial reporting. Why complicate things if you don't have to? Why keep one depreciation schedule for income tax and a second for preparing your financial statements?

Note: The tax law can change at any time, and you can count on the tax law to be extremely technical. The following discussion is meant only as a basic introduction and certainly not as tax advice. The annual income tax guides, such as *Taxes For Dummies* by Eric Tyson, Margaret Atkins Munro, and David J. Silverman (Wiley), go into the more technical details of calculating depreciation.

The IRS rules offer two depreciation methods that can be used for particular classes of assets. Buildings must be depreciated just one way, but for other fixed assets you can take your pick:

- ✓ **Straight-line depreciation:** With this method, you divide the cost evenly among the years of the asset's estimated lifetime. Buildings have to be depreciated this way. Assume that a building purchased by a business cost \$390,000, and its useful life — according to the tax law — is 39 years. The depreciation expense is \$10,000 (1/39 of the cost) for each of the 39 years. You may choose to use the straight-line method for other types of assets. After you start using this method for a particular asset, you can't change your mind and switch to another depreciation method later.
- ✓ **Accelerated depreciation:** Actually, this term is a generic catchall for several different kinds of methods. What they all have in common is that they're *front-loading* methods, meaning that you charge a larger amount of depreciation expense in the early years and a smaller amount in the later years. The term *accelerated* also refers to adopting useful lives that are shorter than realistic estimates. (Very few automobiles are useless after five years, for example, but they can be fully depreciated over five years for income tax purposes.)

One popular accelerated method is the *double-declining balance* (DDB) depreciation method. With this method, you calculate the straight-line depreciation *rate*, and then you double that percentage. You apply that doubled percentage to the declining balance over the course of the asset's depreciation time line. After a certain number of years, you switch back to the straight-line method to ensure that you depreciate the full cost by the end of the predetermined number of years.



The *salvage value* of fixed assets (the estimated disposal values when the assets are taken to the junkyard or sold off at the end of their useful lives) is ignored in the calculation of depreciation for income tax. Put another way, if a fixed asset is held to the end of its entire depreciation life, then its original cost will be fully depreciated, and the fixed asset from that time forward will

have a zero book value. (Recall that *book value* is equal to original cost minus the balance in the accumulated depreciation account.)

Fully depreciated fixed assets are grouped with all other fixed assets in external balance sheets. All these long-term resources of a business are reported in one asset account called *property, plant, and equipment* (usually not “fixed assets”). If all its fixed assets were fully depreciated, the balance sheet of a company would look rather peculiar — the cost of its fixed assets would be offset by its accumulated depreciation. Keep in mind that the cost of land (as opposed to the structures on the land) is not depreciated. The original cost of land stays on the books as long as the business owns the property.

The straight-line depreciation method has strong advantages: It’s easy to understand, and it stabilizes the depreciation expense from year to year. Nevertheless, many business managers and accountants favor an accelerated depreciation method in order to minimize the size of the checks they have to write to the IRS in the early years of using fixed assets. This lets the business keep the cash, for the time being, instead of paying more income tax. Keep in mind, however, that the depreciation expense in the annual income statement is higher in the early years when you use an accelerated depreciation method, and so bottom-line profit is lower. Many accountants and businesses like accelerated depreciation because it paints a more conservative (a lower or more moderate) picture of profit performance in the early years. Who knows? Fixed assets may lose their economic usefulness to a business sooner than expected. If this happens, using the accelerated depreciation method would look very wise in hindsight.



Except for brand-new enterprises, a business typically has a mix of fixed assets — some in their early years of depreciation, some in their middle years, and some in their later years. So, the overall depreciation expense for the year may not be that different than if the business had been using straight-line depreciation for all its depreciable fixed assets. A business does *not* have to disclose in its external financial report what its depreciation expense would have been if it had been using an alternative method. Readers of the financial statements cannot tell how much difference the choice of accounting methods would have caused in depreciation expense that year.

Scanning the Expense Horizon

Recording sales revenue and other income can present some hairy accounting problems. As a matter of fact, the Financial Accounting Standards Board (FASB) — the private sector authority that sets accounting and financial reporting standards in the United States — ranks revenue recognition as a major problem area. A good part of the reason for putting revenue recognition high on the list of accounting problems is that many high profile financial accounting frauds have involved recording bogus sales revenue that had no

economic reality. Sales revenue accounting presents challenging problems in some situations. But in my view, the accounting for many key expenses is equally important. Frankly, it's damn difficult to measure expenses on a year-by-year basis.

I could write a book on expense accounting, which would have at least 20 or 30 major chapters. All I can do here is to call your attention to a few major expense accounting issues.

- ✓ **Asset impairment write-downs:** Inventory shrinkage, bad debts, and depreciation by their very nature are asset write-downs. Other asset write-downs are required when an asset becomes *impaired*, which means that it has lost some or all of its economic utility to the business and has little or no disposable value. An asset write-down reduces the book (recorded) value of an asset (and at the same time records an expense or loss of the same amount). A *write-off* reduces the asset's book value to zero and removes it from the accounts, and the entire amount becomes an expense.
- ✓ **Employee-defined benefits pension plans and other post-retirement benefits:** The GAAP rule on this expense is extremely complex. Several key estimates must be made by the business, including, for example, the expected rate of return on the investment portfolio set aside for these future obligations. This and other estimates affect the amount of expense recorded. In some cases, a business uses an unrealistically high rate of return in order to minimize the amount of this expense.
- ✓ **Certain discretionary operating expenses:** Many operating expenses involve timing problems and/or serious estimation problems. Furthermore, some expenses are very discretionary in nature, which means how much to spend during the year depends almost entirely on the discretion of managers. Managers can defer or accelerate these expenses in order to manipulate the amount of expense recorded in the period. For this reason, businesses filing financial reports with the SEC are required to disclose certain of these expenses, such as repairs and maintenance expense, and advertising expense. (To find examples, go to the EDGAR database of the Securities and Exchange Commission at www.sec.gov.)
- ✓ **Income tax expense:** A business can use different accounting methods for some of the expenses reported in its income statement than it uses for calculating its taxable income. Oh, boy! The hypothetical amount of taxable income, as if the accounting methods used in the income statement were used in the tax return, is calculated; then the income tax based on this hypothetical taxable income is figured. This is the income tax expense reported in the income statement. This amount is reconciled with the actual amount of income tax owed based on the accounting methods used for income tax purposes. A reconciliation of the two different income tax amounts is provided in a technical footnote schedule to the financial statements.



✓ **Management stock options:** A *stock option* is a contract between an executive and the business that gives the executive the option to purchase a certain number of the corporation's capital stock shares at a fixed price (called the *exercise* or *strike* price) after certain conditions are satisfied. Usually a stock option does not vest until the executive has been with the business for a certain number of years. The question is whether the granting of stock options should be recorded as an expense. This issue had been simmering for some time. The Financial Accounting Standards Board (FASB) finally issued a pronouncement that requires a value measure be put on stock options when they are issued and that this amount be recorded as an expense.

You could argue that management stock options are simply an arrangement between the stockholders and the privileged few executives of the business, by which the stockholders allow the executives to buy shares at bargain prices. The granting of stock options does not reduce the assets or increase the liabilities of the business, so you could argue that stock options are not a direct expense of the business; instead, the cost falls on the stockholders. Allowing executives to buy stock shares at below-market prices increases the number of shares over which profit has to be spread, thus decreasing earnings per share. Stockholders have to decide whether they are willing to do this; the granting of management stock options must be put to a vote by the stockholders.

In any case, the main problem today concerns how to put a value on stock options at the time they are issued to executives. The FASB pronouncement opened the door to alternative methods for calculating the value of stock options. Guess what? More than one method is being used by public businesses to measure the expense of management stock options. This should not be a surprise to anyone. It will take some time for things to settle down on the preferred way to measure the cost of management stock options.

Please don't think that the short list above does justice to all the expense accounting problems of businesses. U.S. businesses — large and small, public and private — operate in a highly developed and very sophisticated economy. One result is that expense accounting has become very complicated and confusing.

Part III

Accounting in Managing a Business

The 5th Wave

By Rich Tennant



"Gentlemen, we stand on the shoulders
of accountants."

In this part . . .

This part of the book, in short, explains how accounting helps managers achieve the financial objectives of the business.

To survive and thrive, a business faces three inescapable financial imperatives: making adequate profit, turning its profit into cash flow on a timely basis, and keeping its financial condition in good shape. Its managers should understand the financial statements of the business (see Part II). In addition, business managers should take advantage of time-tested accounting tools and techniques to help them achieve the financial goals of the business.

To begin this part, Chapter 8 explains that business founders must decide which legal structure to use. Chapter 9 demonstrates that business managers need a well-designed P&L (profit and loss) report for understanding and analyzing profit — one that serves as the touchstone in making decisions regarding sales prices, costs, marketing and procurement strategies, and so on.

Chapter 10 explains that budgeting, whether done on a big-time or a small-scale basis, is a valuable technique for planning and setting financial goals. Lastly, Chapter 11 examines the costs that managers work with day in and day out. Managers may think they understand the cost figures they work with, but they may not appreciate the problems in measuring costs.

Chapter 8

Deciding the Legal Structure for a Business

In This Chapter

- ▶ Structuring the business to attract capital
 - ▶ Taking stock of the corporation legal structure
 - ▶ Partnering with others in business
 - ▶ Looking out for Number One in a sole proprietorship
 - ▶ Choosing a legal structure for income tax
-

The obvious reason for investing in a business rather than putting your hard-earned money in a safer type of investment is the potential for greater rewards. Note the word *potential*. As one of the partners or shareowners of a business, you're entitled to your fair share of the business's profit — but at the same time you're subject to the risk that the business could go down the tubes, taking your money with it.

Ignore the risks for a moment and look at just the rosy side of the picture: Suppose the doohickeys that your business sells become the hottest products of the year. Sales are booming, and you start looking at buying a five-bedroom mansion with an ocean view. Don't jump into that down payment just yet — you may not get as big a piece of the sales revenue pie as you're expecting. You may not see *any* of profit after all the claims on sales revenue are satisfied. And even if you do, the way the profit is divided among owners depends on the business's legal structure.

This chapter shows you how legal structure determines your share of the profit — and how changes beyond your control can make your share less valuable. It also explains how the legal structure determines whether the business as a separate entity pays income taxes. (In one type of legal structure, the business pays income taxes *and* its owners pay a second layer of income taxes on the distributions of profit to them by the business. Uncle Sam gets not one but *two* bites of the profit apple.)

Studying the Sources of Business Capital

Every business needs capital. Capital provides the money for the assets a business needs to carry on its operations. Common examples of assets are the working cash balance a business needs for day-to-day activities, products held in inventory for sale, and long-life operating assets (buildings, machines, computers, office equipment, and so on). One of the first questions that sources of business capital ask is: How is the business entity organized legally? In other words, which specific form or legal structure is being used by the business? The different types of business legal entities present different risks and offer different rewards to business capital sources.

Before examining the different types of business entities in detail, it's useful to look at the basic sources of business capital. In other words, where does a business get capital? Regardless of the particular legal structure a business uses, the answer comes down to two basic sources: debt and equity. *Debt* refers to the money borrowed by a business, and *equity* refers to money invested in the business by owners. Making profit also provides equity capital. No matter which type of business entity form that it uses, every business needs a foundation of ownership (equity) capital to persuade people to loan money to the business.

I might add that in starting a new business from scratch, its founders typically must invest a lot of *sweat equity*, which refers to the grueling effort and long hours to get the business off the ground and up and running. The founders don't get paid for their sweat equity, and it does not show up in the accounting records of the business. You don't find the personal investment of time and effort for sweat equity in a balance sheet.

Deciding on debt

Suppose a business has \$10 million in total assets. (You find assets in the balance sheet of a business — see Chapter 5.) How much of the \$10 million should be supplied by debt capital? As you probably know, there's no simple answer to such a question. Some businesses depend on debt capital for more than half of the money needed for their assets. In contrast, some businesses have virtually no debt at all. You find many examples of both public and private companies that have no borrowed money. But as a general rule, businesses carry some debt (and therefore have interest expense).

The debt decision is not really an accounting responsibility. Deciding on debt is the responsibility of the chief financial officer and chief executive of the business. In modest-sized and smaller businesses, the chief accounting officer (controller) may also serve as the chief financial officer. In larger-sized businesses, two different persons hold the top financial and accounting positions.



Most businesses borrow money because their owners are not able or not willing to supply all the capital needed for its assets. As you know, banks are one major source of loans to businesses. Of course, banks charge interest on the loans; a business and its bank negotiate an interest rate acceptable to both. Many other terms and conditions are negotiated, including the term (time period) of the loan and whether collateral is required. The loan contract between a business and its lender may prohibit the business from distributing profit to owners during the period of the loan. Or, the loan agreement may require that the business maintain a minimum cash balance. Generally speaking, the higher the ratio of debt to equity, the more likely a lender will charge higher interest rates and will insist on tougher conditions, because the lender has higher risk that the business might default on the loan.



The president or other appropriate financial officer of the business signs the note payable to the bank. In addition, the bank (or other lender) may ask the major investors in a smaller, privately owned business to sign the note payable *as individuals*, in their personal capacities — and it may ask their spouses to sign the note payable as well. You should definitely understand your personal obligations if you are inclined to sign a note payable of a business. You take the risk that you may have to pay some part or perhaps the entire amount of the loan from your personal assets.

Tapping two sources of owners' equity



The rights and risks of a business's owners are completely different than those of its debtholders. Whether you're a budding entrepreneur about to start up a new business venture or a seasoned business investor, you'd better understand the fundamental differences between the debtholders and shareowners of a business. Every business — regardless of how big it is and whether it's publicly or privately owned — has owners; no business can get all the capital it needs just by borrowing. Every business needs a continuing base of ownership (equity) capital.

Here's what business owners do:

- ✓ Invest money in the business when it originally raises capital from individuals or institutions (for instance, when IBM issued shares of stock to persons who invested money in the company when it started up many years ago, or when three friends formed a partnership last year to start up Joe's Bar & Grill).
- ✓ Expect the business to earn profit on their equity capital in the business and expect to share in that profit by receiving cash distributions from profit and by benefiting from increases in the value of their ownership shares — with no guarantee of either.

- ✔ Directly participate in the management of the business or hire others to manage the business. In smaller businesses, an owner may be one of the managers and may sit on the board of directors, but in very large businesses you are just one of thousands of owners who elect a representative board of directors to oversee the managers of the business and to protect the interests of the owners.
- ✔ Receive a proportionate share of the proceeds if the business is sold, or receive a proportionate share of ownership when another business buys or merges with the business, or end up with nothing in the event the business goes kaput and there's nothing left over after paying off the creditors of the business.

When owners invest money in a business, the accountant records the amount of money as an increase in the company's *cash* account. And, to keep things in balance, the amount invested in the business is also recorded as an increase in an *owners' equity* account. Owners' equity also increases when a business makes profit. (See Chapters 4 and 7 for more on this subject.) Because of the two different reasons for increases, and because of certain legal requirements regarding minimum owners' capital amounts that have to be maintained by a business for the protection of creditors, the owners' equity of a business is divided into two separate types of accounts:

- ✔ **Invested capital:** This type of owners' equity account records the amounts of money that owners have invested in the business, which could have been many years ago. Owners may invest additional capital from time to time, but generally speaking they cannot be forced to put additional money in a business (unless the business issues *assessable* ownership shares, which is unusual). **Note:** A business may keep two or more accounts for invested capital from its owners.
- ✔ **Retained earnings:** The profit earned by a business over the years that has been retained and not distributed to its owners is accumulated in this account. If all profit had been distributed every year, retained earnings would have a zero balance. (If a business has never made a profit, its accumulated loss would cause retained earnings to have a negative balance, which generally is called a *deficit*.) If none of the annual profits of a business had been distributed to its owners, the balance in retained earnings would be the cumulative profit earned by the business since it opened its doors (net of any losses along the way).

Whether to retain part or all of annual net income is one of the most important decisions that a business makes; distributions from profit have to be decided at the highest level of a business. A growing business needs additional capital for expanding its assets, and increasing the debt load of the business usually cannot supply all the additional capital. So, the business *plows back* some of its profit for the year rather than giving it out to the owners. In the long run this may be the best course of action because it provides additional capital for growth.

Recognizing the Legal Roots of Business Entities



One of the most important aspects of our legal system, from the business and economic point of view, is that the law enables *entities* to be created for conducting business activities. These entities are separate and distinct from the individual owners of the business. Business entities have many of the rights of individuals. Business entities can own property and enter into contracts, for example. In starting a business venture, one of the first things the founders have to do is select which type of legal structure to use — which usually requires the services of a lawyer who knows the laws of the state in which the business is organized.

A business may have just one owner, or two or more owners. A one-owner business may choose to operate as a *sole proprietorship*; a multi-owner business must choose to be a *corporation*, a *partnership*, or a *limited liability company*. The most common type of business is a corporation (although the number of sole proprietorships would be larger if you count part-time, self-employed persons in this category).

No legal structure is inherently better than another; which one is right for a particular business is something that the business's managers and owners need to decide at the time of starting the business. The advice of a lawyer is usually needed. The following discussion focuses on the basic types of legal entities that owners can use for their business. Later, the chapter explains how the legal structure determines the income tax paid by the business and its owners, which is always an important consideration.

Incorporating a Business

The law views a *corporation* as a real, live person. Like an adult, a corporation is treated as a distinct and independent individual who has rights and responsibilities. (A corporation can't be sent to jail, but its officers can be put in the slammer if they are convicted of using the corporate entity for carrying out fraud.) A corporation's "birth certificate" is the legal form that is filed with the Secretary of State of the state in which the corporation is created (incorporated). A corporation must have a legal name, of course, like an individual. Some names cannot be used, such as the State Department of Motor Vehicles; you need to consult a lawyer on this point.

Be careful what (and how) you sign

If I sign a \$10 million note payable to the bank as “John A. Tracy, President of Best-Selling Books, Inc.,” then only the business (Best-Selling Books, Inc.) is liable for the debt. But if I also add my personal signature, “John A. Tracy,” below my signature as president of the business, the bank can come after my personal assets in the

event that the business can’t pay the note payable. A good friend of mine once did this; only later did he learn of his legal exposure by signing as an individual. By signing a note payable as an individual, you put your personal and family assets at risk in the event the business is not able to pay the loan.

Just as a child is separate from his or her parents, a corporation is separate from its owners. The corporation is responsible for its own debts. The bank can’t come after you if your neighbor defaults on his or her loan, and the bank can’t come after you if the corporation you have invested money in goes belly up. If a corporation doesn’t pay its debts, its creditors can seize only the corporation’s assets, not the assets of the corporation’s owners. (However, see the sidebar “Be careful what [and how] you sign.”)



This important legal distinction between the obligations of the business entity and its individual owners is known as *limited liability* — that is, the limited liability of the owners. Even if the owners have deep pockets, they have no legal exposure for the unpaid debts of the corporation (unless they’ve used the corporate shell to defraud creditors). So, when you invest money in a corporation as an owner, you know that the most you can lose is the amount you put in. You may lose every dollar you put in, but the corporation’s creditors cannot reach through the corporate entity to grab your assets to pay off the liabilities of the business. (But, to be prudent, you should check with your lawyer on this issue — just to be sure.)

Issuing stock shares

When raising equity capital, a corporation issues ownership shares to persons who invest money in the business. These ownership shares are documented by stock certificates, which state the name of the owner and how many shares are owned. The corporation has to keep a register of how many shares everyone owns, of course. (An owner can be an individual, another corporation, or any other legal entity.) Actually, many public corporations use an independent agency to maintain their ownership records. In some situations stock shares are issued in *book entry form*, which means you get a formal letter (not a fancy engraved stock certificate) attesting to the fact that you own so many shares. Your legal ownership is recorded in the official “books,” or stock registry of the business.

The owners of a corporation are called *stockholders* because they own stock shares issued by the corporation. The stock shares are *negotiable*, meaning the owner can sell them at any time to anyone willing to buy them without having to get the approval of the corporation or other stockholders. *Publicly owned corporations* are those whose stock shares are traded in public markets, such as the New York Stock Exchange and NASDAQ. There is a ready market for the buying and selling of the stock shares.

The stockholders of a private business have the right to sell their shares, although they may enter into a binding agreement restricting this right. For example, suppose you own 20,000 of the 100,000 stock shares issued by the business. So, you have 20 percent of the voting power in the business (one share has one vote). You may agree to offer your shares to the other shareowners before offering the shares to someone else outside the present group of stockholders. Or, you may agree to offer the business itself the right to buy back the shares. In these ways, the continuing stockholders of the business control who owns the stock shares of the business.

Offering different classes of stock shares



Before you invest in stock shares, you should ascertain whether the corporation has issued just one *class* of stock shares. A class is one group, or type, of stock shares all having identical rights; every share is the same as every other share. A corporation can issue two or more different classes of stock shares. For example, a business may offer Class A and Class B stock shares, where Class A stockholders are given the vote in elections for the board of directors but Class B stockholders do not get a vote.

State laws generally are liberal when it comes to allowing corporations to issue different classes of stock shares. A whimsical example is that holders of one class of stock shares could get the best seats at the annual meetings of the stockholders. But whimsy aside, differences between classes of stock shares are very significant and affect the value of the shares of each class of stock.

Two classes of corporate stock shares are fundamentally different: *common stock* and *preferred stock*. Here are two basic differences:

- ✓ Preferred stockholders are promised a certain amount of cash dividends each year (note I said “promised,” not “guaranteed”), but the corporation makes no such promises to its common stockholders. Each year, the board of directors must decide how much, if any, cash dividends to distribute to its common stockholders.
- ✓ Common stockholders have the most risk. A business that ends up in deep financial trouble is obligated to pay off its liabilities first, and then its preferred stockholders. By the time the common stockholders get their turn the business may have no money left to pay them.

Neither of these points makes common stock seem too attractive. But consider the following points:

- ✔ Preferred stock shares usually are promised a *fixed* (limited) dividend per year and typically don't have a claim to any profit beyond the stated amount of dividends. (Some corporations issue *participating* preferred stock, which gives the preferred stockholders a contingent right to more than just their basic amount of dividends. This topic is too technical to explore further in this book.)
- ✔ Preferred stockholders generally don't have voting rights, unless they don't receive dividends for one period or more. In other words, preferred stock shareholders usually do not participate in electing the corporation's board of directors or vote on other critical issues facing the corporation.

The main advantages of common stock, therefore, are the ability to vote in corporation elections and the unlimited *upside potential*: After a corporation's obligations to its preferred stock are satisfied, the rest of the profit it has earned accrues to the benefit of its common stock.

Here are some important things to understand about common stock shares:

- ✔ Each stock share is equal to every other stock share in its class. This way, ownership rights are standardized, and the main difference between two stockholders is how many shares each owns.
- ✔ The only time a business must return stockholders' capital to them is when the majority of stockholders vote to liquidate the business (in part or in total). Other than this, the business's managers don't have to worry about losing the stockholders' capital.
- ✔ A stockholder can sell his or her shares at any time, without the approval of the other stockholders. However, as I mention earlier, the stockholders of a privately owned business may agree to certain restrictions on this right when they first became stockholders in the business.
- ✔ Stockholders can put themselves in key management positions, or they may delegate the task of selecting top managers and officers to the *board of directors*, which is a small group of persons selected by the stockholders to set the business's policies and represent stockholders' interests.

Now don't get the impression that if you buy 100 shares of IBM, you can get yourself elected to its board of directors. On the other hand, if Warren Buffett bought 100 million shares of IBM, he could very well get himself on the board. The relative size of your ownership interest is key. If you put up more than half the money in a business, you can put yourself on the board and elect yourself president of the business. The stockholders who own 50 percent plus one share constitute the controlling group that decides who goes on the board of directors.

Note: The all-stocks-are-created-equal aspect of corporations is a practical and simple way to divide ownership, but its inflexibility can be a hindrance, too. Suppose the stockholders want to delegate to one individual extraordinary power, or to give one person a share of profit out of proportion to his or her stock ownership. The business can make special compensation arrangements for key executives and ask a lawyer for advice on the best way to implement the stockholders' intentions. Nevertheless, state corporation laws require that certain voting matters be settled by a majority vote of stockholders. If enough stockholders oppose a certain arrangement, the other stockholders may have to buy them out to gain a controlling interest in the business. (The limited liability company legal structure permits more flexibility in these matters. I talk about this type of legal structure later in the chapter; see the section "Considering Partnerships and Limited Liability Companies.")

Determining the market value of stock shares

If you want to sell your stock shares, how much can you get for them? There's a world of difference between owning shares of a public corporation and owning shares of a private corporation. *Public* means there is an active market in the stock shares of the business; the shares are *liquid*. The shares can be converted into cash in a flash by calling your stockbroker or going online to sell them. You can check a daily financial newspaper — such as *The Wall Street Journal* — for the current market prices of many large publicly owned corporations. Or you can go to one of many Internet Web sites (such as <http://finance.yahoo.com>) that provide current market prices. But stock shares in privately owned businesses aren't publicly traded, so how can you determine the value of your shares in such a business?

Well, I don't mean to sidestep the question, but stockholders of a private business don't worry about the market value of their shares — until they are serious about selling their shares, or when something else happens that demands putting a value on the shares. When you die, the executor of your estate has to put a value on the shares you own (excuse me, the shares you *used to own*) for estate tax purposes. If you divorce your spouse, a value is needed for the stock shares you own, as part of the divorce settlement. When the business itself is put up for sale, a value is put on the business; dividing this value by the number of stock shares issued by the business gives the value per share.

Other than during events like these, which require that a value be put on the stock shares, the shareowners of a private business get along quite well without knowing a definite value for their shares. This doesn't mean they have no idea regarding the value of their business and what their shares are worth. They read

the financial statements of their business, so they know its profit performance and financial condition. In the backs of their minds they should have a reasonably good estimate regarding how much a willing buyer might pay for the business and the price they would sell their shares for. So even though they don't know the exact market value of their stock shares, they are not completely in the dark about that value.



My son, Tage C. Tracy, and I discuss the valuation of small businesses in our book *Small Business Financial Management Kit For Dummies* (Wiley). Space does not permit an extended discussion of business valuation methods here. Generally speaking, the value of ownership shares in a private business depends heavily on the recent profit performance and the current financial condition of the business, as reported in its latest financial statements. The financial statements may have to be *trued up*, as they say, to bring some of the historical cost values in the balance sheet up to current replacement values.



Business valuation is highly dependent on the specific circumstances of each business. The present owners may be very eager to sell out, and they may be willing to accept a low price instead of taking the time to drive a better bargain. The potential buyers of the business may see opportunities that the present owners don't see or aren't willing to pursue. Even Warren Buffett, who has a well-deserved reputation for knowing how to value a business, admits that he's made some real blunders along the way.

Keeping alert for dilution of share value



Watch out for developments that cause a *dilution effect* on the value of your stock shares — that is, that cause each stock share to drop in value. Keep in mind that sometimes the dilution effect may be the result of a good business decision, so even though your share of the business has decreased in the short term, the long-term profit performance of the business (and, therefore, your investment) may benefit. But you need to watch for these developments closely. The following situations cause a dilution effect:

- ✓ A business issues additional stock shares at the going market value but doesn't really need the additional capital — the business is in no better profit-making position than it was before issuing the new stock shares. For example, a business may issue new stock shares in order to let a newly hired chief executive officer buy them. The immediate effect may be a dilution in the value per share. Over the long term, however, the new CEO may turn the business around and lead it to higher levels of profit that increase the stock's value (see the sidebar "The motivation for management stock options").

- ✔ A business issues new stock shares at a discount below its stock shares' current value. For example, the business may issue a new batch of stock shares at a price lower than the current market value to employees who take advantage of an employee stock-purchase plan. Selling stock shares at a discount, by itself, has a dilution effect on the market value of the shares. But in the grand scheme of things, the stock-purchase plan may motivate its employees to achieve higher productivity levels, which can lead to superior profit performance of the business.

Now here's one for you: The main purpose of issuing additional stock shares is to deliberately dilute the market value per share. For example, a publicly owned corporation doubles its number of shares by issuing a two-for-one *stock split*. Each shareholder gets one new share for each share presently owned, without investing any additional money in the business. As you would expect, the market value of the stock drops in half — which is exactly the purpose of the split because the lower stock price is better for stock market trading (according to conventional wisdom).

The motivation for management stock options

Management stock options are a prime example of issuing stock shares at below-market prices. (See Chapter 7, where I discuss accounting for the expense of management stock options.) Many publicly owned corporations grant their top-level executives stock options in addition to their salaries and other compensation benefits. A *management stock option* gives a manager the legal right to buy a certain number of shares at a fixed price starting at some time in the future — assuming that conditions of continued employment and other requirements are satisfied. Usually the *exercise price* (also called the *strike price*) of a management stock option is set equal to or higher than the market value of the stock shares at the time of grant. So, giving a manager a stock option does not produce any immediate gain to the manager. If the market price of the stock shares rises above

the exercise price of the stock option sometime in the future, the stock options become valuable; indeed, many managers have become multimillionaires from their stock options.

It may seem, therefore, that the management stock options should have a negative impact on the market price of the corporation's stock shares because the total value of the business has to be divided over a larger number of stock shares. On the other hand, the theory is that the total value of the business is higher than it would have been without the management stock options because better managers were attracted to the business or managers performed better because of their options. The stockholders end up better off than they would have been if no stock options had been awarded to the managers. Well, that's the theory.

Recognizing conflicts between stockholders and managers

Stockholders (including managers who own stock shares in the business) are primarily concerned with the profit performance of the business; the dividends they receive and the value of their stock shares depend on it. Managers' jobs depend on living up to the business's profit goals. But while stockholders and managers have the common goal of optimizing profit, they have certain inherent conflict of interests:



- ✓ The more money that managers make in wages and benefits, the less stockholders see in bottom-line net income. Stockholders obviously want the best managers for the job, but they don't want to pay any more than they have to. In many corporations, top-level managers, for all practical purposes, set their own salaries and compensation packages.

A public business corporation establishes a compensation committee consisting of *outside* directors that sets the salaries, incentive bonuses, and other forms of compensation of the top-level executives of the organization. An outside director is one who has no management position in the business and who, therefore, should be more objective and should not be beholden to the chief executive of the business. This is good in theory, but it doesn't work out all that well in practice — mainly because the top-level executive of a large public business typically has the dominant voice in selecting the persons to serve on its board of directors. Being a director of a large public corporation is a prestigious position, to say nothing of the annual fees that are fairly substantial at most corporations.

- ✓ The question of who should control the business — managers, who are hired for their competence and are intimately familiar with the business, or stockholders, who may have no experience relevant to running this business but whose money makes the business tick — can be tough to answer.

In ideal situations, the two sides respect each other's contributions to the business and use this tension constructively. Of course, the real world is far from ideal, and in some companies, managers control the board of directors rather than the other way around.

As an investor, be aware of these issues and how they affect the return on your investment in a business. If you don't like the way your business is run, you can sell your shares and invest your money elsewhere. (However, if the business is privately owned, there may not be a ready market for its stock shares, which puts you between a rock and a hard place.)

Where profit goes in a corporation

Suppose that a private business earned \$1.32 million net income for the year just ended and has issued 400,000 capital stock shares. Divide net income by the number of shares, and you come up with *earnings per share* of \$3.30. Assume that the business paid \$400,000 cash dividends during the year, or \$1.00 per share. The retained earnings account thus increased \$2.30 per share (earnings per share minus dividends per share). Although stockholders don't have the cash to show for it, their investment is better off by \$2.30 per share, which shows up in the balance sheet as an increase in the retained earnings account. They can hope that the business will use the cash provided from profit to increase future profit, which should lead to higher cash dividends.

Now, suppose the business is a public company that is 1,000 times larger. It earned \$1.32 billion on its 400 million capital stock shares and distributed \$400 million in cash dividends. You may

think that the market value should increase \$2.30 per share, because the business earned this much per share that it retained in the business and did not distribute to its shareholders. Your thinking is quite logical: Profit is an increase in the net assets of a business (assets less liabilities, which is also called *net worth*). The business is \$2.30 per share "richer" at the end of the year than it was at the start of the year, due to the profit it earned and retained.

Yet it's entirely possible that the market price of the stock shares actually *decreased* during the year. Market prices are governed by psychological, political, and economic factors that go beyond the information in the financial reports of a business. Financial statements are only one of the information sources that stock investors use in making their buy-and-sell decisions. Chapters 13 and 17 explain how stock investors use the information in financial reports.

Considering Partnerships and Limited Liability Companies

Suppose you're starting a new business with one or more other owners, but you don't want it to be a corporation. You can choose to create a *partnership* or a *limited liability company*, which are the main alternatives to the corporate form of business.



A partnership is also called a *firm*. You don't see this term used to refer to a corporation or limited liability company nearly as often as you do to a partnership. The term *firm* connotes an association of a group of individuals working together in a business or professional practice.

Compared with the relatively rigid structure of corporations, the partnership and limited liability company forms of legal entities allow the division of management authority, profit sharing, and ownership rights among the owners to be very flexible. Here are the key features of these two legal structures:

- ✔ **Partnerships:** Partnerships avoid the double-taxation feature that corporations are subject to (see “Choosing the Right Legal Structure for Income Tax,” later in this chapter, for details). Partnerships also differ from corporations with respect to owners’ liability. A partnership’s owners fall into two categories:
 - **General partners** are subject to *unlimited liability*. If a business can’t pay its debts, its creditors can reach into general partners’ personal assets. General partners have the authority and responsibility to manage the business. They are roughly equivalent to the president and other high-level managers of a business corporation. The general partners usually divide authority and responsibility among themselves, and often they elect one member of their group as the senior general partner or elect a small executive committee to make major decisions.
 - **Limited partners** escape the unlimited liability that the general partners have hanging around their necks. Limited partners are not responsible, as individuals, for the liabilities of the partnership entity. These junior partners have ownership rights to the business’s profit, but they don’t generally participate in the high-level management of the business. A partnership must have one or more general partners; not all partners can be limited partners.

Many large partnerships copy some of the management features of the corporate form — for example, a senior partner who serves as chair of the general partners’ executive committee acts in much the same way as the chair of a corporation’s board of directors.

Generally, a partner can’t sell his or her interest to an outsider without the consent of all the other partners. You can’t just buy your way into a partnership; the other partners have to approve your joining the partnership. In contrast, you can buy stock shares and thereby become part owner of a corporation without the approval of the other stockholders.



- ✔ **Limited liability company (LLC):** The LLC is a relatively new and increasingly popular type of business creature. An LLC is like a corporation regarding limited liability, and it’s like a partnership regarding the flexibility of dividing profit among the owners. An LLC can elect to be treated like a partnership for income tax purposes.

An LLC’s key advantage is *flexibility* — especially regarding how profit and management authority are determined. For example, an LLC permits the founders of the business to put up, say, only 10 or 20 percent of the money to start a business venture but to keep all management authority in their hands. The other investors share in profit but not necessarily in proportion to their invested capital.



LLCs have a lot more flexibility than corporations, but this flexibility can have a downside. The owners must enter into a very detailed agreement that spells out the division of profit, the division of management authority and responsibility, their rights to withdraw capital, and their responsibilities to contribute new capital as needed. These schemes can get very complicated and difficult to understand, and they may end up requiring a lawyer to untangle them. If the legal structure of an LLC is too complicated and too far off the beaten path, the business may have difficulty explaining itself to a lender when applying for a loan, and it may have difficulty convincing new shareholders to put capital into the business.

A partnership treats salaries paid to partners (at least to its general partners) as distributions from profit. In other words, profit is determined *before* the deduction of partners' salaries. LLCs are more likely to treat salaries paid to owner-managers as an expense (like a corporation). I should warn you that the accounting for compensation and services provided by the owners in an LLC and the partners in a partnership gets rather technical and is beyond the scope of this book.

The partnership or LLC agreement specifies how to divide profit among the owners. Whereas owners of a corporation receive a share of profit directly proportional to the number of shares they own, a partnership or LLC does not have to divide profit according to how much each owner invested.

Limiting liability: Professional corporations and LLPs

Professional partnerships — physicians, CPAs, lawyers, and so on — may choose to become *professional corporations (PCs)*, which are a special type of legal structure that state laws offer to professionals who otherwise would have to operate under the specter of unlimited partnership liability. States also permit *limited liability partnerships (LLPs)* for qualified professionals (such as doctors, lawyers, CPAs, and dentists), in which all the partners have limited liability.

These types of legal entities were created mainly in reaction to very large damage awards in malpractice lawsuits against partners during

recent times. The professionals pleaded for protection from the unlimited liability of the partnership form of organization, which they had traditionally used. Until these new types of professional legal entities came along, the code of professional ethics of the various professions required that practitioners operate as a partnership (or as sole practitioners).

Today, almost all professional associations are organized as PCs or LLPs. They function very much as partnerships do but without the unlimited liability feature — which is like having the best of both worlds.

Invested capital is only one of three factors that generally play into profit allocation in partnerships and LLCs:

- ✓ **Treasure:** Owners may be rewarded according to how much of the *treasure* — invested capital — they contributed. So if Jane invested twice as much as Joe did, her cut of the profit may be twice as much as Joe's.
- ✓ **Time:** Owners who invest more time in the business may receive more of the profit. Some partners or owners, for example, may generate more billable hours to clients than others, and the profit-sharing plan reflects this disparity. Some partners or owners may work only part-time, so the profit-sharing plan takes this factor into account.
- ✓ **Talent:** Regardless of capital and time, some partners bring more to the business than others. Maybe they have better business contacts, or they're better *rainmakers* (they have a knack for making deals happen), or they're celebrities whose names alone are worth a special share of the profit. Whatever it is that they do for the business, they contribute much more to the business's success than their capital or time suggests.



TIP

A partnership needs to maintain a separate capital (ownership) account for each partner. The total profit of the entity is allocated into these capital accounts, as spelled out in the partnership agreement. The agreement also specifies how much money each partner can withdraw from his capital account. For example, partners may be limited to withdrawing no more than 80 percent of their anticipated share of profit for the coming year, or they may be allowed to withdraw only a certain amount until they've built up their capital accounts.

Going It Alone: Sole Proprietorships

A *sole proprietorship* is, basically, the business arm of an individual who has decided not to carry on his or her business activity as a separate legal entity (as a corporation, partnership, or limited liability company). This is the default when you don't establish a legal entity.



REMEMBER

This kind of business is not a separate entity; it's like the front porch of a house — attached to the house but a separate and distinct area. You may be a sole proprietor of a business without knowing it! An individual may do house repair work on a part-time basis or be a full-time barber who operates on his own. Both are sole proprietorships. Anytime you regularly provide services for a fee, sell things at a flea market, or engage in any business activity whose primary purpose is to make profit, you are a sole proprietor. If you carry on business activity to make profit or income, the IRS requires that you file a separate Schedule C "Profit or Loss From Business" with your annual individual income tax return. Schedule C summarizes your income and expenses from your sole proprietorship business.

Sharing profit with customers: Business cooperatives

A business that shares its profit with its customers? Nobody can be *that* generous. Actually, one type of business entity does just that: A *cooperative* pays its customers *patronage dividends* based on its profit for the year — each customer receives a year-end refund based on his or her purchases from the business over the year. Imagine that.

Oh, did I mention that in a cooperative, the customers are the owners? To shop in the cooperative, a customer must invest a certain amount of money in the business. (You knew there had to be a catch somewhere!) I grew up in Iowa. You see

the silos of grain co-ops (cooperative associations) all over the state. They are owned by the farmers who use the co-ops to store and deliver their crops.

Business cooperatives deduct patronage dividends in determining their taxable income for the year. If the business returns all profit to customers as patronage dividends, taxable income is zero. But the owners have to list their patronage dividends on their individual income tax returns for the year (and the co-op reports these distributions to the IRS).

As the sole owner (proprietor), you have *unlimited liability*, meaning that if your business can't pay all its liabilities, the creditors to whom your business owes money can come after your personal assets. Many part-time entrepreneurs may not know this or may put it out of their minds, but this is a big risk to take. I have friends who are part-time business consultants and they operate their consulting businesses as sole proprietorships. If they are sued for giving bad advice, all their personal assets are at risk — though they may be able to buy malpractice insurance to cover these losses.

Obviously, a sole proprietorship has no other owners to prepare financial statements for, but the proprietor should still prepare these statements to know how his or her business is doing. Banks usually require financial statements from sole proprietors who apply for loans.



One other piece of advice for sole proprietors: Although you don't have to separate invested capital from retained earnings like corporations do, you should still keep these two separate accounts for owners' equity — not only for the purpose of tracking the business but for the benefit of any future buyers of the business as well.

Choosing the Right Legal Structure for Income Tax

While deciding which type of legal structure is best for securing capital and managing their business, owners should also consider the dreaded income tax factor. They should know the key differences between the two alternative kinds of business entities from the income tax point of view:

- ✓ **Taxable-entity, C corporations:** These corporations are subject to income tax on their annual taxable income. Plus, their stockholders pay a second income tax on cash dividends that the business distributes to them from profit, making C corporations and their owners subject to double taxation. The owners (stockholders) of a C corporation include in their individual income tax returns the cash distributions from the after-tax profit paid to them by the business.
- ✓ **Pass-through entities — partnerships, S corporations, and LLCs:** These entities do not pay income tax on their annual taxable income; instead, they pass through their taxable income to their owners, who pick up their shares of the taxable income on their individual tax returns. Pass-through entities still have to file tax returns with the IRS, even though they don't pay income tax on their taxable income. In their tax returns, they inform the IRS how much taxable income is allocated to each owner, and they send each owner a copy of this information to include with his or her individual income tax return.



Most LLCs opt to be treated as pass-through entities for income tax purposes. But an LLC can choose instead to be taxed as a C corporation and pay income tax on its taxable income for the year, with its individual shareholders paying a second tax on cash distributions of profit from the LLC. Why would an LLC choose double taxation? Keep reading.

The following sections illustrate the differences between the two types of tax entities for deciding on the legal structure for a business. In these examples, I assume that the business uses the same accounting methods in preparing its income statement that it uses for determining its taxable income — a generally realistic assumption. (I readily admit, however, that there are many technical exceptions to this general rule.) To keep this discussion simple, I consider just the federal income tax, which is much larger than any state income tax that may apply.

C corporations

A corporation that cannot qualify as an S corporation (which I explain in the next section) or that does not elect this alternative if it does qualify is referred to as a *C corporation* in the tax law. A C corporation is subject to federal income tax based on its taxable income for the year, keeping in mind that there are a host of special tax credits (offsets) that could reduce or even eliminate the amount of income tax a corporation has to pay. I probably don't need to remind you how complicated the federal income tax is.

Suppose a business is taxed as a C corporation. Its abbreviated income statement for the year just ended is as follows (see Chapter 4 for more about income statements):

Sales revenue	\$26,000,000
Expenses, except income tax	<u>(23,800,000)</u>
Earnings before income tax	\$2,200,000
Income tax	<u>(748,000)</u>
Net income	<u>\$1,452,000</u>

Now, at this point I had to make a decision. One alternative was to refer to income tax form numbers and to use the tax rates in effect at the time of writing this chapter. The income tax form numbers have remained the same for many years, but the rest of the tax law keeps changing. For instance, Congress shifts tax rates every so often. Furthermore, tax rates are not flat; they're progressive, which means that the rates step up from one taxable income bracket to the next higher bracket — for both businesses and individuals. As I have already alluded to, there are many special deductions to determine taxable income, and there are many special tax credits that offset the normal amount of income tax. (And I haven't even said anything about the increasingly serious problems caused by the alternative minimum tax provision in the income tax law.)



Given the complexity and changing nature of the income tax law, in the following discussion I avoid going into details about income tax form numbers and the income tax rates that I use to determine the income tax amounts in each example. By the time you read this section, the tax rates probably will have changed anyway. Let me assure you, however, that I use realistic income tax numbers in the following discussion. (I didn't just look out the window and make up income tax amounts.)

Refer to the C corporation income statement example again. Based on its \$2.2 million taxable income for the year, the business owes \$748,000 income tax — most of which should have been paid to the IRS before year-end. The income

tax is a big chunk of the business's hard-earned profit before income tax. Finally, don't forget that net income means bottom-line profit after income tax expense.

Being a C corporation, the business pays \$748,000 income tax on its profit before tax, which leaves \$1,452,000 net income after income tax. Suppose the business distributes \$500,000 of its after-tax profit to its stockholders as their just rewards for investing capital in the business. The stockholders include the cash dividends as income in their individual income tax returns.

Assuming that all the individual stockholders have to pay income tax on this additional layer of income, as a group they would pay something in the neighborhood of \$75,000 income tax to Uncle Sam.



A business corporation is not legally required to distribute cash dividends, even when it reports a profit and has good cash flow from its operating activities. But paying zero cash dividends may not go down well with all the stockholders. If you've persuaded your Aunt Hilda and Uncle Harry to invest some of their money in your business, and if the business doesn't pay any cash dividends, they may be very upset. The average large public corporation pays out about 30 percent of its after-tax annual net income as cash dividends to its stockholders. It's difficult to say what privately owned corporations do regarding dividends, since the information is not available to the public.

S corporations

A business that meets the following criteria (and certain other conditions) can elect to be treated as an S corporation:

- ✓ It has issued only one class of stock.
- ✓ It has 100 or fewer people holding its stock shares.
- ✓ It has received approval for becoming an S corporation from all its stockholders.

Suppose that the business example I discuss in the previous section qualifies and elects to be taxed as an S corporation. Its abbreviated income statement for the year is as follows:

Abbreviated Annual Income Statement for an S Corporation

Sales revenue	\$26,000,000
Expenses, except income tax	(23,800,000)
Earnings before income tax	\$2,200,000
Income tax	<u>0</u>
Net income	<u>\$2,200,000</u>

An S corporation pays no income tax itself, as you see in this abbreviated income statement. But it must allocate its \$2.2 million taxable income among its owners (stockholders) in proportion to the number of stock shares each owner holds. If you own one-tenth of the total shares, you include \$220,000 of the business's taxable income in your individual income tax return for the year whether or not you receive any cash distribution from the profit of the S corporation. That probably pushes you into a high income tax rate bracket.



When its stockholders read the bottom line of this S corporation's annual income statement, it's a good news/bad news thing. The good news is that the business made \$2.2 million net income and does not have to pay any corporate income tax on this profit. The bad news is that the stockholders must include their respective shares of the \$2.2 million in their individual income tax returns for the year. I can only speculate on the total amount of individual income tax that would be paid by the stockholders as a group. But I would hazard a guess that the amount would be \$300,000 or more. An S corporation could distribute cash dividends to its stockholders, to provide them the money to pay the income tax on their shares of the company's taxable income that is passed through to them.

The main tax question concerns how to minimize the overall income tax burden on the business entity and its stockholders. Should the business be an S corporation (assuming it qualifies) and pass through its taxable income to its stockholders, which generates taxable income to them? Or should the business operate as a C corporation (which always is an option) and have its stockholders pay a second tax on dividends paid to them in addition to the income tax paid by the business? Here's another twist: In some cases, stockholders may prefer that their S corporation *not* distribute any cash dividends. They are willing to finance the growth of the business by paying income tax on the taxable profits of the business, which relieves the business from paying income tax. Many factors come into play in choosing between an S and C corporation. There are no simple answers. I strongly advise you to consult a CPA or other tax professional.

Partnerships and LLCs

The LLC type of business entity borrows some features from the corporate form and some features from the partnership form. The LLC is neither fish nor fowl; it's an unusual blending of features that have worked well for many business ventures. A business organized as an LLC has the option to be a pass-through tax entity instead of paying income tax on its taxable income. A partnership doesn't have an option; it's a pass-through tax entity by virtue of being a partnership.

Following are the key income tax features of partnerships and LLCs:



- ✔ A partnership is a pass-through tax entity, just like an S corporation.

When two or more owners join together and invest money to start a business and don't incorporate and don't form an LLC, the tax law treats the business as a *de facto* partnership. Most partnerships are based on written agreements among the owners, but even without a formal, written agreement, a partnership exists in the eyes of the income tax law (and in the eyes of the law in general).

- ✔ An LLC has the choice between being treated as a pass-through tax entity and being treated as a taxable entity (like a C corporation). All you need to do is check off a box in the business's tax return to make the choice. (It's hard to believe that anything related to taxes and the IRS is as simple as that!) Many businesses organize as LLCs because they want to be pass-through tax entities (although the flexible structure of the LLC is also a strong motive for choosing this type of legal organization).

The partners in a partnership and the shareholders of an LLC pick up their shares of the business's taxable income in the same manner as the stockholders of an S corporation. They include their shares of the entity's taxable income in their individual income tax returns for the year. For example, suppose your share of the annual profit as a partner, or as one of the LLC's shareholders, is \$150,000. You include this amount in your personal income tax return.



Once more, I must mention that choosing the best legal structure for a business is a complicated affair that goes beyond just the income tax factor. You need to consider many other factors, such as the number of equity investors who will be active managers in the business, state laws regarding business legal entities, ease of transferring ownership shares, and so on. After you select a particular legal structure, changing it later is not easy. Asking the advice of a qualified professional is well worth the money and can prevent costly mistakes.

Sometimes the search for the ideal legal structure that minimizes income tax and maximizes other benefits is like the search for the Holy Grail. Business owners should not expect to find the perfect answer — they have to make compromises and balance the advantages and disadvantages. In its external financial reports, a business has to make clear which type of legal entity it is. The type of entity is a very important factor to the lenders and other creditors of the business, and to its owners of course.

Chapter 9

Analyzing and Managing Profit

In This Chapter

- ▶ Recognizing the profit-making function of business managers
 - ▶ Scoping the field of managerial accounting
 - ▶ Centering on profit centers
 - ▶ Understanding P&L reports
 - ▶ Analyzing profit for fun and profit
-

As a manager, you get paid to make profit happen. That's what separates you from the employees at your business. Of course, you should be a motivator, innovator, consensus builder, lobbyist, and maybe sometimes a babysitter, too, but the hard-core purpose of your job is to make and improve profit. No matter how much your staff loves you (or do they love those doughnuts you bring in every Monday?), if you don't meet your profit goals, you're facing the unemployment line.

Competition in most industries is fierce, and you can never take profit performance for granted. Changes take place all the time — changes initiated by the business and changes from outside forces. Maybe a new superstore down the street is causing your profit to fall off, and you figure that you'll have a huge sale to draw customers, complete with splashy ads on TV and Dimbo the Clown in the store. Whoa, not so fast. First make sure that you can afford to cut prices and spend money on advertising and still turn a profit. Maybe price cuts and Dimbo's balloon creations will keep your cash register singing, but making sales does not guarantee that you make a profit. Profit is a two-headed beast: Profit comes from making sales *and* controlling expenses.

This chapter focuses on the fundamental financial factors that drive profit — what you could call the *levers of profit*. Business managers need a sure-handed grip on these profit handles. Profit reports prepared for people outside the business don't disclose all the vital information that business managers need to plan and control profit performance. A manager needs to thoroughly understand external income statements and also needs to look deep into the bowels of the business.

Helping Managers Do Their Jobs

As previous chapters explain, accounting serves critical functions in a business. A business needs a dependable recordkeeping and bookkeeping system for operating in a smooth and efficient manner. Strong internal accounting controls are needed to minimize errors and fraud. A business must comply with a myriad of tax laws, and it depends on its chief accountant (controller) to make sure that all its tax returns are prepared on time and correctly. A business prepares financial statements that must conform with established accounting standards, which are reported on a regular basis to its creditors and external shareholders. In addition, accounting should help managers in their decision-making, control, and planning. This sub-field of accounting is generally called *managerial or management accounting*.

This is the first of three chapters devoted to this branch of accounting. In this chapter, I pay particular attention to the internal accounting report to managers that provides essential feedback information needed for controlling current profit performance, and which also serves as the platform for planning future profit performance. I also explain how managers use accounting information for analyzing how they make profit and why profit changes from one period to the next. Chapter 10 concentrates on financial planning and budgeting, and Chapter 11 examines the methods and problems of determining product costs (generally called *cost accounting*).



Designing and monitoring the accounting system, complying with tax laws, and preparing external financial reports all put heavy demands on the time and attention of the accounting department of a business. Even so, managers' needs for accounting information should not be given second-level priority. The chief accountant (controller) has the responsibility of ensuring that the financial information needs of managers are served with maximum usefulness. Ideally, a manager tells the accountant exactly what information he needs and how to report the information. In the real world, however, this is not exactly how it works. The accountant has to more or less read the mind of the manager. Oftentimes the accountant has to take the initiative regarding the information to report to managers and how to report it.

Following the organizational structure

The first rule of managerial accounting is to follow the organizational structure: to report relevant information for which each manager is responsible. (This principle is sometimes referred to as *responsibility accounting*.) If a manager is in charge of sales in a territory, for instance, the controller reports the sales activity for that territory during the period to the sales manager. Two

types of organizational units in a business are of primary interest to managerial accountants:

- ✓ **Profit centers:** These are separate, identifiable sources of sales revenue that expenses can be matched with, so that a measure of profit can be determined for each. A profit center can be a particular product or a product line, a particular location or territory in which a wide range of products are sold, or a channel of distribution. Rarely is the entire business managed as one conglomerate profit center, with no differentiation of its different sources of sales and profit.
- ✓ **Cost centers:** Some departments and other organizational units do not generate sales, but they have costs that can be identified to their operations. Examples are the accounting department, the headquarters staff of a business, the legal department, and the security department. The managers responsible for these organizational units need accounting reports that keep them informed about the costs of running their departments. The managers should keep their costs under control, of course, and they need informative accounting reports to do this.



In this chapter, I concentrate on accounting reports for managers of profit centers. I don't mean to shun cost centers, but, frankly, the type of accounting information needed by the managers of cost centers is relatively straightforward. They need a lot of detailed information, including comparisons with last period and with the budgeted targets for the current period. I don't mean to suggest that the design of cost center reports is a trivial matter. Sorting out significant cost variances and highlighting these cost problems for management attention is very important. But the spotlight of this chapter is on profit analysis methods and the primary accounting report for managers of profit centers.

Note: I should mention that large businesses commonly create relatively autonomous units within the organization that, in addition to having responsibility for their profit and cost centers, also have broad authority and control over investing in assets and raising capital for their assets. These organization units are called, quite logically, *investment centers*. Basically, an investment center is a mini business within the larger conglomerate. Discussing investment centers is beyond the scope of this chapter.

Centering on profit centers

From a one-person sole proprietorship to a mammoth business organization like General Electric or IBM, one of the most important tasks of managerial accounting is to identify each source of profit within the business and to accumulate the sales revenue and the expenses for each of these sources of profit. Can you imagine an auto dealership, for example, not separating revenue and expenses between its new car sales and its service department? For that

matter an auto dealer may earn more profit from its financing operations (originating loans) than from selling new and used cars.

Even many small businesses have a relatively large number of different sources of profit. In contrast, even a relatively large business may have just a few mainstream sources of profit. There are no sweeping rules for classifying sales revenue and costs for the purpose of segregating sources of profit — in other words, for defining the profit centers of a business. Every business has to sort this out on its own. The controller (chief accountant) can advise top management regarding how to organize the business into profit centers. But the main job of the controller is to identify the profit centers that are established by management and to make sure that the managers of these profit centers get the accounting information they need.

Presenting a P&L Template



Profit performance reports prepared for a business's managers typically are called *P&L* (profit and loss) *reports*. These reports are prepared as frequently as managers need them, usually monthly or quarterly — perhaps even weekly in some businesses. An internal P&L report goes to the manager in charge of each profit center; these confidential profit reports do not circulate outside the business.

External financial statements comply with well-established rules and conventions. In contrast, the format and content of internal accounting reports to managers is a wide-open field. If you could sneak a peek at the internal P&L reports of several businesses, I think you would be surprised at the diversity among the businesses. All businesses include sales revenue and expenses in their internal P&L reports. Beyond this broad comment, it's very difficult to generalize about the specific format and level of detail included in P&L reports, particularly regarding how operating expenses are disclosed.

Businesses that sell products deduct the cost of goods sold expense from sales revenue, and then report *gross margin* (also called *gross profit*) — both in their externally reported income statements and in their internal P&L reports to managers. However, internal P&L reports have a lot more detail about sources of sales and the components of cost of goods sold expense. In this chapter, I use the example of a business that sells products, so the P&L report that I introduce in the next section follows this pattern. Businesses that sell products manufactured by other businesses generally fall into one of two types: *retailers* that sell products to final consumers, and *wholesalers* (distributors) that sell to retailers. The following discussion applies to both retailers and wholesalers, and also lays the foundation for manufacturing businesses, which I discuss in Chapter 11.

From the gross margin on down in an internal P&L statement, reporting practices vary from company to company. One question looms large: How should the *operating expenses* of a profit center be presented in its P&L report? There's no authoritative answer to this question. Different businesses report their operating expenses differently in their internal P&L statements. One basic choice for reporting operating expenses is between the *object of expenditure basis* and the *cost behavior basis*.

Reporting operating expenses on the object of expenditure basis

One way to present operating expenses in a profit center's P&L report is to list them according to the *object of expenditure basis*. This means that expenses are classified according to what is purchased (the object of the expenditure) — such as salaries and wages, commissions paid to salespersons, rent, depreciation, shipping costs, real estate taxes, advertising, insurance, utilities, office supplies, telephone costs, and so on. To do this, the operating expenses of the business have to be recorded in such a way that these costs can be traced to each of its various profit centers. For example, employee salaries of persons working in a particular profit center are recorded as belonging to that profit center.



The object of expenditure basis for reporting operating costs to managers of profit centers is practical and convenient. And this information is useful for management control because, generally speaking, controlling costs focuses on the particular items being bought by the business. For example, a profit center manager analyzes wages and salary expense to decide whether additional or fewer personnel are needed relative to current and forecast sales levels. A manager can examine the fire insurance expense relative to the types of assets being insured and their risks of fire losses. For cost control purposes the object of expenditure basis works well. But, there is a downside. This method for reporting operating costs to profit center managers obscures the all-important factor in making profit: *margin*. Managers absolutely need to know margin, as I explain in the following sections.

Reporting operating expenses on their cost behavior basis



Margin is the residual amount after all variable expenses of making sales are deducted from sales revenue. The first and usually largest variable expense of making sales is the cost of goods sold expense (for companies that sell products). But most businesses also have other variable expenses that depend either on the volume of sales (quantities sold) or the dollar amount of sales (sales revenue). In addition to variable operating expenses of making sales,

almost all businesses have fixed expenses that are not sensitive to sales activity — at least not in the short run. Margin equals profit after all variable costs are deducted from sales revenue but before fixed costs are deducted from sales revenue.

Figure 9-1 presents a P&L report for a profit center example that classifies operating expenses according to how they behave relative to sales activity. The detailed expenses under each major heading are not presented in the P&L report itself; instead, this information is presented in supporting schedules that supplement the main page of the P&L report.

This two-level approach provides a hierarchy of information. The most important and critical information is included in the main P&L report, in summary form. As time permits, the manager can drill down to the more detailed information in the supporting schedules for each variable and fixed expense in the main P&L report. The supplementary information for each variable and fixed expense is presented according to the object of expenditure basis. For example, depreciation on the profit center's fixed assets is one of several items listed in the *direct fixed expenses* category. The amount of commissions paid to salespersons is listed in the *revenue-driven expenses* category.

The example shown in Figure 9-1 is an *annual* P&L report. As I mention earlier, profit reports are prepared as frequently as needed by managers, monthly in most cases. Interim P&L reports may be abbreviated versions of the annual report. But at least once a year, and preferably more often, the manager should see the complete picture of all expenses of the profit center. Keep in mind that this example is for just one slice of the total business, which has other profit centers each with its own profit (P&L) report.

	Year Ended December 31, 2009		Year Ended December 31, 2008	
	100,000 units		97,500 units	
	Per Unit	Totals	Per Unit	Totals
Sales volume				
Sales revenue	\$100.00	\$10,000,000	\$98.00	\$9,555,000
Cost of goods sold	\$60.00	\$6,000,000	\$61.50	\$5,996,250
Gross margin	\$40.00	\$4,000,000	\$36.50	\$3,558,750
Revenue-driven expenses	8.50%	\$850,000	8.00%	\$764,400
Volume-driven expenses	\$6.50	\$650,000	\$6.00	\$585,000
Margin	\$25.00	\$2,500,000	\$22.66	\$2,209,350
Direct fixed expenses		\$750,000		\$700,000
Allocated fixed expenses		\$250,000		\$225,000
Operating earnings		\$1,500,000		\$1,284,350

Figure 9-1:
A P&L
report
template for
a profit
center.



The P&L report shown in Figure 9-1 includes *sales volume*, which is the total number of units of product sold during the period. Of course, the accounting system of a business has to be designed to accumulate sales volume information for the P&L report of each profit center. Generally speaking, keeping track of sales volume for products is not a problem, unless the business sells a huge variety of different products. When a business cannot come up with a meaningful measure of sales volume, it still can classify its operating costs between variable and fixed, although it loses the ability to use per-unit values in analyzing profit and has to rely on other techniques.

Separating variable and fixed expenses

For a manager to analyze a business's profit behavior thoroughly, she needs to know which expenses are *variable* and which are *fixed* — in other words, which expenses change according to the level of sales activity in a given period, and which don't. The title of each expense account often gives a pretty good clue. For example, the cost of goods sold expense is variable because it depends on the number of units of product sold, and sales commissions are variable expenses. On the other hand, real estate property taxes and fire and liability insurance premiums are fixed for a period of time.

Managers should always have a good feel for how their operating expenses behave relative to sales activity. But to be honest, separating variable and fixed operating expenses is not quite as simple as it may appear at first glance. One problem that rears its ugly head is that some expenses, which are recorded on an object of expenditure basis, have both a fixed cost component and a variable cost component. A classic example was the “telephone and telegraph” expense (as it was called in the old days). Businesses had to pay a fixed charge per month for local calls, but long-distance charges depended on how many calls were made and to where. Of course, modern communication networks using cell phones and the Internet are quite different. In any case, the accountant should separate between the fixed and variable cost components of expenses for reporting to managers.

Variable expenses

Virtually every business has *variable expenses*, which move up and down in tight proportion with changes in sales volume or sales revenue, like soldiers obeying orders barked out by their drill sergeant. Here are examples of common variable expenses:

- ✓ The cost of goods sold expense, which is the cost of products sold to customers
- ✓ Commissions paid to salespeople based on their sales
- ✓ Franchise fees based on total sales for the period, which are paid to the franchisor

- ✔ Transportation costs of delivering products to customers via FedEx, UPS, and freight haulers (railroads and trucking companies)
- ✔ Fees that a retailer pays when a customer uses a credit or debit card

Cost of goods sold is usually the largest variable expense of a business that sells products, as you would suspect. Other variable expenses are referred to as *operating* expenses, which are the costs of making sales and running the business. The sizes of variable operating expenses, relative to sales revenue, vary from industry to industry. Delivery costs of Wal-Mart and Costco, for instance, are minimal because their customers take the products they buy with them. (Wal-Mart and Costco employees generally don't even help carry purchases to their customers' vehicles.) Other businesses deliver products to their customers' doorsteps, so that expense is obviously much higher (and dependent on which delivery service the company uses — FedEx or UPS versus the U.S. Postal Service, for example).

Fixed expenses

Fixed operating expenses include many different costs that a business is obligated to pay and cannot decrease over the short run without major surgery on the human resources and physical facilities of the business.

As an example of fixed expenses, consider the typical self-service car wash business — you know, the kind where you drive in, put some coins in a box, and use the water spray to clean your car. Almost all the operating costs of this business are fixed; rent on the land, depreciation of the structure and the equipment, and the annual insurance premium don't depend on the number of cars passing through the car wash. The main variable expenses are the water and the soap, and perhaps the cost of electricity.

Fixed expenses are the costs of doing business that, for all practical purposes, are stuck at a certain amount over the short term. Fixed expenses do not react to changes in the sales level. Here are some more examples of fixed operating expenses:

- ✔ Gas and electricity costs to heat, cool, and light the premises
- ✔ Employees' salaries and benefits
- ✔ Real estate property taxes
- ✔ Annual audit fee (if the business has its financial statements audited)
- ✔ General liability and officers' and directors' insurance premiums

If you want to decrease fixed expenses significantly, you need to downsize the business (lay off workers, sell off property, and so on). When looking at the various ways for improving profit, significantly cutting down on fixed expenses is generally the last-resort option. Refer to the section “Know your options for

improving profit” later in the chapter. A business should be careful not to overreact to a temporary downturn in sales by making drastic reductions in its fixed costs, which it may regret later if sales pick up again.

Stopping at operating earnings

In Figure 9-1, the P&L report terminates at the operating earnings line; it does not include interest expense or income tax expense. Interest expense and income tax expense are business-wide types of expenses, which are the responsibility of the financial executive(s) of the business. Generally, interest and income tax expenses are not assigned to profit centers, unless a profit center is a rather large and autonomous organizational division of the business that has responsibility for its own assets, finances, and income tax.



The measure of profit before interest and income tax is commonly called *operating earnings* or *operating profit*. It also goes by the name *earnings before interest and tax*, or EBIT. It is not called *net income*, because this term is reserved for the final bottom-line profit number of a business, after all expenses (including interest and income tax) are deducted from sales revenue.

Different uses of the term *margin*

Gross margin, also called *gross profit*, equals sales revenue minus the cost of goods sold expense. Gross margin does not reflect other variable operating expenses that are deducted from sales revenue. In contrast, the term *margin* refers to sales revenue less *all* variable expenses. Some people use the term *contribution margin* instead of just *margin* to stress that margin contributes toward the recovery of fixed expenses (and to profit after fixed expenses are covered). However, the prefix *contribution* is not really necessary, and I don't use it. Why use two words when one will do?

Businesses that sell products report gross margin in their external income statements. However, they do not disclose their variable and fixed operating expenses. They report expenses according to an object of expenditure basis, such as “marketing, administrative, and general

expenses.” The broad expense categories reported in external income statements include both variable and fixed cost components. Therefore, the margin of a business (sales revenue after all variable expenses but before fixed expenses) is not reported in its external income statement. Managers carefully guard information about margins. They don't want competitors to know the margins of their business.

Further complicating the issue, unfortunately, is that newspaper reporters frequently use the term *margin* when referring to operating earnings. Strictly speaking, this usage is not correct. Margin equals profit after all variable expenses are deducted from sales revenue and before fixed expenses are deducted. So, be careful when you see the term *margin*: It may refer to gross margin, to true margin, or to operating earnings.

Focusing on margin — the catalyst of profit

Figure 9-1 includes a very important line of information: *margin* — both *margin per unit* and *total margin*. Margin is your operating profit before fixed expenses are deducted. Don't confuse this number with *gross margin*, which is profit after the cost of goods sold expense is subtracted from sales revenue but before any other expenses are deducted. (Please refer to the sidebar “Different uses of the term *margin*.”)

With the information in Figure 9-1 in hand, you can dig into the reasons that margin per unit increased from \$22.66 in fiscal year 2008 to \$25.00 in fiscal year 2009. Two favorable changes occurred: The sales price per unit increased, and the product cost decreased — no small achievement, to be sure! However, the gain in the gross profit per unit was offset by unfavorable changes in both variable operating expenses. The profit center manager must keep on top of these changes.



As a manager, your attention should be riveted on margin per unit, and you should understand the reasons for changes in this key profit driver from period to period. A small change in unit margin can have a big impact on operating earnings. (See “Don't underestimate the impact of small changes in sales price” later in the chapter.)

Answering Two Critical Profit Questions



If you were the manager of a profit center and you had just received the latest P&L report (see Figure 9-1), you should immediately ask yourself two questions:

- ✓ How did I make \$1.5 million profit (operating earnings before interest and income tax) in 2009?
- ✓ Why did my profit increase \$215,650 over last year (\$1,500,000 in 2009 – \$1,284,350 in 2008 = \$215,650 profit increase)?

How did you make profit?

Actually, you can answer this profit question three ways (see Figure 9-1 for data):

- ✓ **Answer # 1: You earned total margin that is more than fixed expenses.**

You earned \$25 profit margin per unit and sold 100,000 units; therefore:

$$\begin{aligned} \$25 \text{ unit margin} \times 100,000 \text{ units sales volume} = \\ \$2,500,000 \text{ margin} \end{aligned}$$

Your profit center is charged with \$1 million total fixed expenses for the year (\$750,000 direct plus \$250,000 allocated fixed costs); therefore:

$$\begin{aligned} \$2,500,000 \text{ margin} - \$1,000,000 \text{ fixed operating} \\ \text{expenses} = \$1,500,000 \text{ operating profit} \end{aligned}$$

✔ **Answer # 2: Your sales volume exceeded your break-even point.**

Your break-even point is the sales volume at which total margin exactly equals total fixed expenses. Your break-even point for 2009 was:

$$\begin{aligned} \$1,000,000 \text{ total fixed expenses for year} \div \$25 \\ \text{margin per unit} = 40,000 \text{ units sales volume} \\ \text{break-even point} \end{aligned}$$

Your actual sales volume for the year was 100,000 units, or 60,000 units in excess of your break-even point. Each unit sold in excess of break-even generated \$25 “pure” profit because the first 40,000 units sold covered your fixed expenses. Therefore:

$$\begin{aligned} 60,000 \text{ units sold in excess of break-even} \times \$25 \\ \text{margin per unit} = \$1,500,000 \text{ operating profit} \end{aligned}$$

✔ **Answer # 3: Your high sales volume diluted fixed expenses per unit to below your margin per unit.**

The average fixed expenses per unit sold for the year is:

$$\begin{aligned} 1,500,000 \text{ total fixed expenses} \div 100,000 \text{ units sold} \\ = \$10 \text{ fixed expenses per unit sold} \end{aligned}$$

Your margin per unit was \$25; so operating earnings per unit were \$15 (\$25 margin per unit – \$10 fixed expenses per unit = \$15 operating earnings per unit). Therefore:

$$\begin{aligned} \$15 \text{ operating earnings per unit} \times 100,000 \text{ units} \\ \text{sales volume} = \$1,500,000 \text{ operating earnings} \end{aligned}$$

Each answer is valid. In certain situations, one method of analysis is more useful than another. If you were thinking of making a large increase in fixed operating expenses, for example, you should pay attention to the effect on your break-even point; answer #2 is useful in this situation. If you were thinking of changing sales prices, answer #1, which focuses on margin per unit, is very relevant. (See the later section “Using the P&L Template for Decision-Making Analysis.”) Likewise, if you’re dealing with changes in product cost or variable operating expenses that affect unit margin, answer #1 is very helpful.



Answer 3 is useful to focus on the *full cost* of a product. In the example, the sales price is \$100 per unit (refer to Figure 9-1). The total of variable costs per unit is \$75 (which includes product cost and the two variable operating costs per unit). The average fixed cost per unit sold is \$10, which added to the \$75 variable cost per unit gives \$85 full cost per unit. Subtracting the full cost per unit from the \$100 sales price gives the \$15 profit per unit.

How did you increase profit?

In your profit center report (refer to Figure 9-1), note that your total fixed expenses increased from \$925,000 last year to \$1 million in 2009, a \$75,000 increase. Of course, you should investigate the reasons for your fixed expense increases. The \$25,000 increase in allocated fixed expenses may not be under your control, but the \$50,000 increase in direct fixed expenses is under your control. These fixed costs are your responsibility as manager of the profit center. You definitely should know which of these costs were higher than last year, and the reasons for the increases.

In any case, you were able to increase margin more than enough to cover the fixed costs increases and to boost profit. In fact, your margin increased \$290,650 over last year (\$2,500,000 margin in 2009 – \$2,209,350 margin in 2008 = \$290,650 margin increase). How did you do this?

This question can be answered more than one way. In my view, the most practical method is to calculate the effect of changes in *sales volume* and the *margin per unit*. Being the superb manager that you are, to say nothing of your marketing genius, your profit center increased sales volume over last year. Furthermore, you were able to increase margin per unit, which is even more impressive. The profit impact of each change is determined as follows (refer to Figure 9-1 for data):

✔ **Sales volume change impact on profit:**

$$\begin{aligned} & \$25 \text{ margin per unit} \times 2,500 \text{ units sales volume} \\ & \text{increase} = \$62,500 \text{ increase in margin} \end{aligned}$$

✔ **Margin per unit change impact on profit:**

$$\begin{aligned} & \$2.34 \text{ increase in margin per unit} \times 97,500 \text{ units} \\ & \text{sales volume last year} = \$228,150 \text{ increase} \\ & \text{in margin} \end{aligned}$$

Even if your sales volume had stayed the same, the \$2.34 increase in your margin per unit (from \$22.66 to \$25) would have increased margin \$228,150. And by selling 2,500 more units than last year, you increased margin \$62,500. Quite clearly, the major factor was the significant increase in your margin per unit. You were able to increase this key profit driver by more than 10 percent (10.3 percent to be precise). However, you may not be able to repeat this performance in the coming year; you may have to increase sales volume to boost profit next year.

Looking More Closely at the Profit Center P&L Report

As the previous sections should make clear, profit center managers depend heavily on the information in their P&L reports. They need to thoroughly understand these profit reports. Therefore, I want to spend some time walking through each element of the P&L report. Please flip back to Figure 9-1 as I do so.

Sales volume

Sales volume, the first line in the P&L report, is the total number of units sold during the period, net of any returns by customers. Sales volume should include only units that actually brought in revenue to the business. In general, businesses do a good job in keeping track of the sales volumes of their products (and services). These are closely monitored figures in, for example, the automobile and personal computer industries.

Now here's a nagging problem: Some businesses sell a huge variety of products. No single product or product line brings in more than a small fraction of the total sales revenue. For instance, McGuckin Hardware, a general hardware store in Boulder, carries more than 100,000 products. The business may keep count of customer traffic or the number of individual sales made over the year, but it probably does not track the quantities sold for each and every product it sells. I explore this issue later in the chapter — see the last section, “Closing with a Boozy Example,” for more details.

Sales revenue

Sales revenue is the net amount of money received by the business from the sales of products during the period. Notice the word *net* here. The business in our example, like most, offers its customers many incentives to buy its products and to pay quickly for their purchases. The amount of sales revenue in Figure 9-1 is not simply the list prices of the products sold times the number of units sold. Rather, the sales revenue amount takes into account deductions for rebates, allowances, prompt payment discounts, and any other incentives offered to customers that reduce the amount of revenue received by the business. (The manager can ask that these revenue offsets be included in the supplementary backup layer of schedules to the main page of the P&L report.)

Cost of goods sold

Cost of goods sold is the cost of the products sold during the period. This expense should be net of discounts, rebates, and allowances the business receives from its vendors and suppliers. The cost of goods sold means different things for different types of businesses:

✓ To determine product costs, manufacturers add together three costs:

- The costs of raw materials
- Labor costs
- Production overhead costs

Accounting for the cost of manufactured products is a major function of *cost accounting*, which I discuss in Chapter 11.

✓ For retailers and distributors, product cost basically is purchase cost. However, refer to Chapter 7, where I explain the differences between the FIFO and LIFO methods for releasing inventory costs to the cost of goods sold expense. The profit center manager should have no doubts about which cost of goods sold expense accounting method is being used. For that matter, the manager should be aware of any other costs that are included in total product cost (such as inbound freight and handling costs in some cases).



One common problem is how to report the cost of *inventory shrinkage*, which refers to losses from shoplifting by customers, physical deterioration of products as they sit in inventory, employee theft of products, damage caused in the handling and storage of products, and so on. The amount of inventory shrinkage can be included in the cost of goods sold expense, or it may be included in volume-driven operating expenses. A manager definitely should know which other costs have been placed in the cost of goods sold expense, in addition to the product cost of units sold during the period.

Variable operating expenses

In Figure 9-1, variable operating expenses are divided into two types: revenue-driven expenses and volume-driven expenses.

Revenue-driven expenses are those that depend primarily on the dollar amount of sales revenue. This group of variable operating expenses includes commissions paid to salespersons based on the dollar amount of their sales, credit card fees paid by retailers, franchise fees based on sales revenue, and any other cost that depends directly on the amount of sales revenue. Notice in Figure 9-1 that these

operating expenses are presented as a *percent* of sales price in the per-unit column; in the example these costs equal 8.5 percent, or \$8.50 per \$100 of sales revenue in 2009 (versus only 8.0 percent in 2008).

Volume-driven expenses are driven by and depend primarily on the number of units sold, or the total quantity of products sold during the period (as opposed to the dollar value of the sales). These expenses include delivery and transportation costs paid by the business, packaging costs, and any costs that depend primarily on the size and weight of the products sold.

Most businesses have both types of variable operating expenses. However, one or the other may be so minor that it would not be useful to report the cost as a separate item to managers. Only the dominant type of variable operating expense would be presented, and it would absorb the other type — which is good enough for government work, as they say.

Fixed operating expenses

Managers may view fixed operating expenses as an albatross around the neck of the business. In fact, these costs provide the infrastructure and support for making sales. The main characteristic of fixed operating costs is that they do not decline when sales during the period fall short of expectations. A business commits to many fixed operating costs for the coming period. For all practical purposes these costs cannot be decreased very much over the short run. Examples of fixed costs are wages of employees on fixed salaries (from managers to maintenance workers), real estate taxes, depreciation on the buildings and equipment used in making sales, and utility bills.



Certain fixed costs can be matched with a particular profit center. For example, a business may advertise a specific product, and the fixed cost of the advertisement can be matched against revenue from sales of that product. A major product line may have its own employees on fixed salaries or its own delivery trucks on which depreciation is recorded. A business may purchase specific liability insurance covering a particular product it sells. In Figure 9-1 these costs are reported as *direct fixed expenses*.

In contrast, you cannot directly couple company-wide fixed operating expenses to particular products, product lines, or other types of profit units in the organizational structure of a business. General administrative expenses (such as the CEO's annual salary and corporate legal expenses) are incurred on an entity-as-a-whole basis and cannot be connected directly with any particular profit center. A business may, therefore, allocate these fixed costs among its different profit centers. The fixed costs that are handed down from headquarters are shown as *allocated fixed expenses* in Figure 9-1.

Dealing with a flaw in the accounting system

The P&L report template I show in Figure 9-1 and the analysis of profit I explain in the section “Answering Two Critical Profit Questions” hinge on the separation of variable and fixed operating costs. On the other hand, the classification between variable and fixed operating expenses is not needed in external financial statements and income tax returns. Operating expenses are reported on the object of expenditure basis in external financial reports and tax returns, so the accounting systems of many businesses do not tag operating expense accounts as fixed or variable. As a result, variable versus fixed information for operating expenses is not readily

available from the accounting system. What’s a manager to do?

Well, here’s a practical solution: As the profit center manager, you can tell your accountant whether an operating expense is variable or fixed. Give your classification of the operating expenses in your profit center to the accountant, and stress that you want this classification in the P&L report for your profit center. This may be extra work for your accountant, but the variable versus fixed classification of operating expense is of great value for your management decision-making, control, and planning.

Using the P&L Template for Decision-Making Analysis

The P&L template (refer to Figure 9-1) serves as a good model for decision-making analysis. To demonstrate, suppose that you’re under intense competitive pressure to lower the sales price of one product you sell. This product is one “slice” of the total activity reported in Figure 9-1. Suppose that during the year (2009) you sold 1,000 units of the product at a \$100 sales price, and the unit costs of this product are the same as in Figure 9-1.



Your competitors are undercutting your sales price, so you’re thinking of cutting the sales price 10 percent next year, or \$10 per unit. You predict that the price reduction will boost sales volume 25 percent and increase your market share. Seems like a good idea — or does it? You should run some numbers before making a final decision, just to be sure. Answer #1 in the earlier section “How did you make profit?” is the best method for this analysis. For the year just ended, this product generated \$25,000 margin:

$$\begin{aligned} \$25 \text{ margin per unit} \times 1,000 \text{ units sold} &= \\ & \$25,000 \text{ margin} \end{aligned}$$

Assuming your prediction about sales volume at the lower price is correct and sales volume increases to 1,250 units, and assuming that the variable costs for the product remain the same, next year you would earn \$18,750 margin:

$$\begin{aligned} \$15 \text{ margin per unit} \times 1,250 \text{ units sold} &= \\ & \$18,750 \text{ margin} \end{aligned}$$

Cutting the sales price \$10 reduces the margin per unit \$10; the new margin per unit would be \$5 per unit. That's a 50 percent drop in margin per unit. A 25 percent gain in sales volume cannot make up for the 50 percent plunge in margin per unit. You'd need a much larger sales increase just to keep margin the same as in 2009, and even more sales to increase margin next year. You'd better think twice about dropping the sales price.

You may gain a larger market share, but your margin would drop from \$25,000 to \$18,750 on this product if you go ahead with the sales price cut. Is the larger market share worth this much sacrifice of margin? That's why you get paid the big bucks: to make decisions like this. As your controller I can only help you do the analysis and calculate the impact on profit before you make a final decision.



Another factor to consider is this: Fixed expenses (people, warehouse space, distribution channels, and so on) provide the *capacity* to make sales and carry on operations. A small increase in sales volume, such as selling 250 more units of the product in question, should not push up the total fixed expenses of your profit center (unless you are already bursting at the seams). On the other hand, a major sales volume increase across the board would require additional capacity, and your fixed expenses would have to be increased.

This sales price reduction decision is just one example of the many decisions business managers have to deal with day in and day out. The P&L report template is a useful — indeed an invaluable — analysis framework for many decisions facing business managers.

Tucking Away Some Valuable Lessons

The P&L report template shown in Figure 9-1 offers managers several important lessons. Like most tools, the more you use it the more you learn. In the following sections I summarize some important lessons from the template.

Recognize the leverage effect caused by fixed operating expenses

Suppose sales volume had been 10 percent higher or lower in 2009, holding other profit factors the same. Would profit have been correspondingly 10

percent higher or lower? The intuitive, knee-jerk reaction answer is yes, profit would have been 10 percent higher or lower. Wouldn't it? Not necessarily. *Margin* would have been 10 percent higher or lower — \$250,000 higher or lower ($\$25 \text{ margin per unit} \times 10,000 \text{ units} = \$250,000$).

The \$250,000 change in margin would carry down to profit *unless* fixed expenses would have been higher or lower at the different sales volume. The very nature of fixed expenses is that these costs do not change with relatively small changes in sales volume. In all likelihood, fixed expenses would have been virtually the same at a 10 percent higher or lower sales level.



Therefore, profit would have been \$250,000 higher or lower. On the base profit of \$1.5 million, the \$250,000 swing equals a 17 percent shift in profit. Thus, a 10 percent swing in sales volume causes a 17 percent swing in profit. This wider swing in profit is called the *operating leverage* effect. The idea is that a business makes better use of its fixed expenses when sales go up; its fixed expenses don't increase with the sales volume increase. Of course, the downside is that fixed expenses don't decrease when sales volume drops.

Don't underestimate the impact of small changes in sales price

Recall that in the example the sales price is \$100, and revenue-driven variable expenses are 8.5 percent of sales revenue (refer to Figure 9-1). Suppose the business had sold the product for \$4 more or less than it did, which is only a 4 percent change — pretty small it would seem. This different sales price would have changed its margin per unit \$3.66 net of the corresponding change in the revenue-driven variable expenses per unit. ($\$4 \text{ sales price change} \times 8.5 \text{ percent} = \$.34 \text{ per unit}$, which netted against the \$4 sales price change = \$3.66 change in margin per unit.)

Therefore, the business would have earned total margin \$366,000 higher or lower than it did at the \$100 sales price. ($\$3.66 \text{ change in margin per unit} \times 100,000 \text{ units sales volume} = \$366,000 \text{ shift in margin}$.) Fixed expenses are not sensitive to sales price changes and would have been the same, so the \$366,000 shift in margin would carry down to profit.



The \$366,000 swing in profit, compared with the \$1.5 million baseline profit in the example, equals a 24 percent swing in profit. A 4 percent change in sales price causes a 24 percent change in profit. Recall that a 10 percent change in sales volume causes just a 17 percent change in profit. When it comes to profit impact, sales price changes dominate sales volume changes.

The moral of the story is to protect margin per unit above all else. Every dollar of margin per unit that's lost — due to decreased sales prices, increased product cost, or increases in other variable costs — has a tremendously negative impact on profit. Conversely, if you can increase the margin per unit without hurting sales volume, you reap very large profit benefits.



Know your options for improving profit

Improving profit boils down to three critical factors, listed in order from the most effective to the least effective:

- ✓ Increasing margin per unit
- ✓ Increasing sales volume
- ✓ Reducing fixed expenses

Say you want to improve your profit from the \$1.5 million you earned in 2009 to \$1.8 million next year, which is a \$300,000 or 20 percent increase. Okay, so how are you going to increase profit \$300,000? Here are your basic options:

- ✓ Increase your margin per unit \$3, which would raise total margin \$300,000 based on the 100,000 units sales volume.
- ✓ Sell 12,000 additional units at the present margin per unit of \$25, which would raise your total margin by \$300,000. (12,000 additional units \times \$25 = \$300,000 additional margin.)
- ✓ Use a combination of these two strategies: Increase both the margin per unit and sales volume such that the combined effect is to improve total margin \$300,000.
- ✓ Reduce fixed expenses \$300,000.

The last alternative may not be very realistic. Part of your fixed expenses (\$250,000) is the amount allocated from headquarters, over which you have no control. Reducing your direct fixed expenses \$300,000, from \$750,000 to \$450,000, would be drastic and probably would reduce your capacity to make sales and carry out the operations in your part of the business. Perhaps you could do a little belt-tightening in your fixed expenses area, but in all likelihood you would have to turn to the other alternatives for increasing your profit.

The second approach is obvious — you just need to set a sales goal of increasing the number of products sold by 12,000 units. (How you motivate your already overworked sales staff to accomplish that sales volume goal is up to you.) But how do you go about the first approach, increasing the margin per unit by \$3?

The simplest way to increase margin per unit by \$3 would be to decrease your product cost per unit \$3. Or you could attempt to reduce sales commissions from \$8.50 per \$100 of sales to \$5.50 per \$100 — which may hurt the motivation of your sales force, of course. Or you could raise the sales price about \$3.38 (remember that 8.5 percent comes off the top for sales commission, so only \$3 would remain to improve the unit margin). Or you could combine two or more such changes so that your unit margin next year would increase \$3.

Closing with a Boozy Example

Several years ago, some friends pooled their capital and opened a liquor store in a rapidly growing area. In their estimation, the business had a lot of promise. They didn't come to me for advice, but if they had I would have told them one thing to do during their planning stage — in addition to location analysis and competition analysis, of course. I would have recommended that they run some critical numbers through a basic profit model in order to estimate the annual sales revenue they would need to break even. Of course, they want to do better than break even, but the break-even sales level is a key point of reference.

Starting up any business involves making commitments to a lot of fixed expenses. Leases are signed, equipment is purchased, people are hired, and so on. All this puts a heavy fixed cost burden on a new business. The business needs to make sales and generate margin from the sales that is enough to cover its fixed expenses before it can break into the profit column. So, the first step I would have suggested is that they estimate their fixed expenses for the first year. Next, they should have estimated their profit margin on sales. Here there is a slight problem, but one that is not too difficult to deal with.

During their open house for the new store, I noticed the very large number of different beers, wines, and spirits available for sale — to say nothing of the different sizes and types of containers many products come in. Quite literally, the business sells thousands of distinct products. The store also sells many products like soft drinks, ice, corkscrews, and so on. Therefore, the business does not have an easy-to-define sales volume factor (the number of units sold) for analyzing profit. The business example I discuss in this chapter uses a sales volume factor, which is the number of units sold during the period. In the liquor store example, this won't work. So, a modification is made. *Total sales revenue* is used for the measure of sales volume, not the number of units (bottles) sold.

The next step, then, is to determine the *average margin as a percent of sales revenue*. I'd estimate that a liquor store's average gross margin (sales revenue less cost of goods sold) is about 25 percent. The other variable operating expenses of the liquor store probably run about 5 percent of sales. (I could be off on this estimate, of course.) So, the average margin would be 20 percent of sales (25

percent gross margin less 5 percent variable operating expenses). Suppose the total fixed operating expenses of the liquor store were about \$100,000 per month (for rent, salaries, electricity, and so on), which is \$1.2 million per year. So, the store needs \$6 million in annual sales to break even:

$$\begin{array}{l} \$1,200,000 \text{ annual fixed expenses} \div 20\% \text{ average} \\ \text{margin} = \$6,000,000 \text{ annual sales revenue to break} \\ \text{even} \end{array}$$

Selling \$6 million of product a year means moving a lot of booze. The business needs to sell another \$1 million to provide \$200,000 of operating earnings (at the 20 percent average margin) — to pay interest expense and income tax and leave enough net income for the owners who invested capital in the business and who expect a decent return on their investment.

I'm not privy to the financial statements of the liquor store. It appears that they have been quite successful. Business seems to be booming, even without my advice. Perhaps they did exactly the sort of profit model analysis that I would have recommended.

Chapter 10

Financial Planning, Budgeting, and Control

In This Chapter

- ▶ Defining the benefits of budgeting
 - ▶ Budgeting profit and cash flow
 - ▶ Keeping budgeting in perspective
 - ▶ Staying flexible with budgets
-

A business can't open its doors each day without having a pretty good idea of what to expect. And it can't close its doors at the end of the day not knowing what happened. Recall the Boy Scouts' motto: "Be prepared." A business should follow that dictum: It should plan and be prepared for its future, and it should control its actual performance to reach its financial goals.

Business managers can wait for results to be reported to them on a "look back" basis, and then wing it from there. Or, they can look ahead and carefully plan profit, cash flows, and financial condition of the business, to chart its course into the future. The plan provides invaluable benchmarks; actual results can be compared against the plan to detect when things go off course.

Planning the financial future of a business and comparing actual performance against the plan are the essence of *business budgeting*. Budgeting is not an end to itself but rather a means or tool of financial planning and control.

But keep in mind that budgeting costs time and money. The business manager should put budgeting to the cost/benefit test. Frankly, budgeting may not earn its keep and could actually cause serious problems that contradict the very reasons for doing it.

Budgeting offers important benefits, but a business may decide not to go to the effort of full-scale budgeting. I can't argue with a minimal budgeting strategy for some businesses. However, a business should not throw out the budgeting baby with the bathwater. Certain techniques used in budgeting are very useful even when a business doesn't do formal budgeting.

Exploring the Reasons for Budgeting



The financial statements included in the financial reports of a business are prepared *after the fact*; they're based on transactions that have already taken place. (I explain business financial statements in Chapters 4, 5, and 6.) Budgeted financial statements, on the other hand, are prepared *before the fact* and reflect future transactions that are expected to take place based on the business's strategy and financial goals. **Note:** Budgeted financial statements are not shared outside the business; they are strictly for internal management use.



Business budgeting requires setting specific goals and developing the detailed plans necessary to achieve them. Business budgeting should be built on realistic forecasts for the coming period. A business budget is an integrated plan of action — not simply a few trend lines on a financial chart. Budgeting is much more than slap-dashing together a few figures. A budget is an integrated financial plan put down on paper — or, more likely these days, entered in computer spreadsheets. (Many budgeting computer programs are on the market today; ask your CPA or other financial consultant which one he or she thinks is best for your business.)

Business managers don't just look out the window and come up with budget numbers. Budgeting is not pie-in-the-sky wishful thinking. Business budgeting — to have practical value — must start with a broad-based critical analysis of the most recent actual performance and position of the business by the managers who are responsible for the results. Then the managers decide on specific and concrete goals for the coming year. (Budgets can be done for more than one year, but the first stepping stone into the future is the budget for the coming year — see the sidebar “Taking it one game at a time.”)

In short, budgeting demands a fair amount of managers' time and energy. Budgets should be worth this time and effort. So why should a business go to the trouble of budgeting? Business managers do budgeting and prepare budgeted financial statements for three main reasons: modeling, planning, and control.



Taking it one game at a time

A company generally prepares one-year budgets, although many businesses also develop budgets for two, three, and five years out. Whenever you reach out beyond a year, what you're doing becomes more tentative and iffy. Making forecasts and estimates for the next 12 months is tough enough. A one-year budget is

more definite and detailed in comparison to longer-term budgets. As they say in the sports world, a business should take it one game (or year) at a time. Looking down the road beyond one year is a good idea, to set long-term goals and to develop long-term strategy. But long-term planning is different than short-term budgeting.

Modeling reasons for budgeting

Business managers should make detailed analyses to determine how to improve the financial performance and condition of their business. The status quo is usually not good enough; business managers are paid to improve things — not to simply rest on their past accomplishments. For this reason managers should develop good *models* of profit, cash flow, and financial condition for their business. Models are blueprints or schematics of how things work. A financial model is like a roadmap that clearly marks the pathways to profit, cash flow, and financial condition.



Don't be intimidated by the term *model*. Simply put, a model consists of variables and how they interact. A variable is a critical factor that, in conjunction with other factors, determines results. A model is analytical, but not all models are mathematical. In fact, none of the financial models in this book is the least bit mathematical — but you do have to look at each factor of the model and how it interacts with one or more other factors. Here's an example of an accounting model, which is called the *accounting equation*:

$$\text{Assets} = \text{Liabilities} + \text{Owners' equity}$$

This is a very condensed model of the balance sheet. The accounting equation is not detailed enough for budgeting, however. More detail about assets and liabilities is needed for budgeting purposes.

Chapter 9 presents a profit and loss (P&L) report template for managers (see Figure 9-1). This P&L report is, at its core, a *profit model*. This model includes the critical variables that drive profit: sales volume, sales price, product cost, and so on. A P&L report, such as the one I show in Figure 9-1, provides the essential feedback information on profit performance of the organizational unit (a profit center in the example). The P&L report also serves as the platform and the point of departure for mapping out the profit strategies and goals for the coming year.



Likewise, business managers need a model for planning cash flow from operating activities. (I explain this important source of cash flow in Chapter 6.) Managers should definitely forecast the amount of cash they will generate during the coming year from making profit. They need a reliable estimate of this source of cash flow in order to plan for other sources of cash flow they will need during the coming year — to provide the money for replacing and expanding the long-term operating (fixed) assets of the business and to make cash distributions from profit to owners. Managers need a model that provides a clear trail of how the sales and expenses of the business drive its assets and liabilities, which in turn drive the cash flow from operating activities.

Most business managers see the advantages of budgeting profit for the coming year; you don't have to twist their arms to do this. At the same time, many businesses balk at budgeting changes in assets and liabilities during the coming year, which means they can't budget cash flow from operating activities. All their budget effort is focused on profit, and they leave cash flows and financial condition in the dark. This is a dangerous strategy when the business is in a tight cash position. The business should not simply assume that its cash flow from operating activities will be adequate to its needs during the coming year.

The best advice is to prepare all three budgeted financial statements:

- ✔ **Budgeted income statement (profit report):** The P&L report shown in Figure 9-1 serves as a hands-on profit model — one that highlights the critical variables that drive profit. This P&L report separates *variable* and *fixed* expenses and includes *sales volume*, *margin per unit*, and other factors that determine profit performance. The P&L report is a schematic that shows the path to operating profit. It reveals the factors that must be improved in order to improve profit performance in the coming period.
- ✔ **Budgeted balance sheet:** The key connections and ratios between sales revenue and expenses and their corresponding assets and liabilities are the elements in the model for the budgeted balance sheet. These vital connections are explained throughout Chapters 4 and 5. The budgeted changes in operating assets and liabilities provide the information needed for budgeting cash flows during the coming year.
- ✔ **Budgeted statement of cash flows:** The budgeted changes during the coming year in the assets and liabilities used in making profit (conducting operating activities) determine *cash flow from operating activities* for the coming year (see Chapter 6). In contrast, the cash flows of *investing* and *financing* activities depend on the managers' strategic decisions regarding capital expenditures that will be made during the coming year, how much new capital will be raised from debt and from owners' sources of capital, and the business's policy regarding cash distributions from profit.

In short, budgeting requires good working models of making profit, financial condition (assets and liabilities), and cash flow. Budgeting provides a strong incentive for business managers to develop financial models that help them make strategic decisions and exercise control — and do better planning.

Planning reasons for budgeting

One main purpose of budgeting is to force managers to create a definite and detailed financial plan for the coming period. To construct a budget, managers have to establish explicit financial objectives for the coming year and identify exactly what has to be done to accomplish these financial objectives.

Budgeted financial statements and their supporting schedules provide clear destination points — the financial flight plan for a business.

The process of putting together a budget directs attention to the specific things that you must do to achieve your profit objectives and optimize your assets and capital. Basically, budgets are a form of planning that push managers to answer the question “How are we going to get there from here?”

Budgeting can also yield other important planning-related benefits:

- ✔ **Budgeting encourages a business to articulate its vision, strategy, and goals.** A business needs a clearly stated strategy guided by an overarching vision, and it should have definite and explicit goals. It is not enough for business managers to have strategies and goals in their heads. Developing budgeted financial statements forces managers to be explicit and definite about the objectives of the business, as well as to formulate realistic plans for achieving the business objectives.
- ✔ **Budgeting imposes discipline and deadlines on the planning process.** Busy managers have trouble finding enough time for lunch, let alone planning for the upcoming financial period. Budgeting pushes managers to set aside time to prepare a detailed plan that serves as a road map for the business. Good planning results in a concrete course of action that details how a company plans to achieve its financial objectives.

Management control reasons for budgeting



I deliberately put this reason last, after the modeling and planning reasons for budgeting. Many people have the mistaken notion that the main purpose of budgeting is to rein in managers and employees, who otherwise would spend money like drunken sailors. Budgeting should not put the business’s managers in a financial straitjacket. Tying the hands of managers is not the purpose of budgeting. Having said this, however, it’s true that budgets serve a management control function. *Management control*, first and foremost, means achieving the financial goals and objectives of the business, which requires comparing actual performance against benchmarks and holding individual managers responsible for keeping the business on schedule in reaching its financial objectives.

The board of directors of a corporation focuses its attention on the *master budget* for the whole business: the budgeted income statement, balance sheet, and cash flow statement for the business as a whole for the coming year. The chief executive officer (CEO) of the business focuses on the master budget as well, but the CEO must also look at how each manager in the organization is doing on his or her part of the master budget. As you move down the organization chart of a business, managers have narrower responsibilities — say, for the business’s northeastern territory or for one major product line. A

master budget consists of different segments that follow the business's organizational structure. In other words, the master budget is put together from many pieces, one for each separate organizational unit of the business. For example, the manager of one of the company's far-flung warehouses has a separate budget for expenses and inventory levels for his or her bailiwick.

By using budget targets as benchmarks against which actual performance is compared, managers can closely monitor progress toward (or deviations from) the budget goals and timetable. You use a budget plan like a navigation chart to keep your business on course. Significant variations from the budget raise red flags, in which case you can determine that performance is off course or that the budget needs to be revised because of unexpected developments.



For management control, a budgeted profit report is divided into months or quarters for the coming year. The budgeted balance sheet and budgeted cash flow statement may also be put on a monthly or quarterly basis. The business should not wait too long to compare budgeted sales revenue and expenses against actual performance (or to compare actual cash flows and asset levels against the budget). You need to take prompt action when problems arise, such as a divergence between budgeted expenses and actual expenses.

Profit is the main thing to pay attention to, but accounts receivable and inventory can also get out of control (become too high relative to actual sales revenue and cost of goods sold expense), causing cash flow problems. (Chapter 6 explains how increases in accounts receivable and inventory are negative factors on cash flow.) A business cannot afford to ignore its balance sheet and cash flow numbers until the end of the year.

Additional benefits of budgeting, and a note of caution

Budgeting has advantages and ramifications that go beyond the financial dimension and have more to do with business management in general. Consider the following:

- ✔ **Budgeting forces managers to do better forecasting.** Managers should be constantly scanning the business environment to spot changes that will impact the business. Vague generalizations about what the future may hold for the business are not good enough for assembling a budget. Managers are forced to put their predictions into definite and concrete forecasts.
- ✔ **Budgeting motivates managers and employees by providing useful yardsticks for evaluating performance.** The budgeting process can have a good motivational impact by involving managers in the budgeting process (especially in setting goals and objectives) and by providing incentives to

managers to strive for and achieve the business's goals and objectives. Budgets provide useful information for superiors to evaluate the performance of managers and can be used to reward good results. Employees may be equally motivated by budgets. For example, budgets supply baseline financial information for incentive compensation plans. And the profit plan (budget) for the year can be used to award year-end bonuses according to whether designated goals were achieved.

- ✔ **Budgeting can assist in the communication between different levels of management.** Putting plans and expectations in black and white in budgeted financial statements — including definite numbers for forecasts and goals — minimizes confusion and creates a kind of common language. As you know, the “failure to communicate” lament is common in many business organizations. Well-crafted budgets can definitely help the communication process.
- ✔ **Budgeting is essential in writing a business plan.** New and emerging businesses need to present a convincing business plan when raising capital. Because these businesses may have little or no history, the managers and owners must demonstrate convincingly that the company has a clear strategy and a realistic plan to make profit. A coherent, realistic budget forecast is an essential component of a business plan. Venture capital sources definitely want to see the budgeted financial statements of a business.

In larger businesses, budgets are typically used to hold managers accountable for their areas of responsibility in the organization; actual results are compared against budgeted goals and timetables, and variances are highlighted. Managers do not mind taking credit for *favorable* variances, when actual comes in better than budget. But beating the budget for the period does not always indicate outstanding performance. A favorable variance could be the result of manipulating the budget in the first place, so that the budgeted benchmarks can be easily achieved.



Likewise, *unfavorable* variances have to be interpreted carefully. If a manager's budgeted goals and targets are fair and reasonable, the manager should be held responsible. The manager should carefully analyze what went wrong and what needs to be improved. Stern action may be called for, but the higher ups should recognize that the budget benchmarks may not be entirely fair; in particular, they should make allowances for unexpected developments that occur after the budget goals and targets are established (such as a hurricane or tornado, or the bankruptcy of a major customer). When managers perceive the budgeted goals and targets to be arbitrarily imposed by superiors and not realistic, serious motivational problems can arise.



Budgeting is not without its problems. Budgeting looks good in theory, but in actual practice things are not so rosy. Here are some issues to consider:

- ✔ Budgeting takes time, and the one thing all business managers will tell you is that they never have enough time for all the things they should do.

- ✓ Budgeting done from the top down (from headquarters down to the lower levels of managers) can stifle innovation and discourage managers from taking the initiative when they should.
- ✓ Unrealistic budget goals can demotivate managers rather than motivate them.
- ✓ Managers may *game* the budget, which means they play the budget as a game in which they worry first and foremost about how they will be affected by the budget rather than what's best for the business.
- ✓ There have been cases in which managers resorted to accounting fraud to make their budget numbers.

Realizing That Not Everyone Budgets

Most of what I've said so far in this chapter can be likened to a commercial for budgeting — emphasizing the reasons for and advantages of budgeting by a business. So every business does budgeting, right? Nope. Smaller businesses generally do little or no budgeting — and even many larger businesses avoid budgeting, at least in a formal and comprehensive manner. The reasons are many, and mostly practical in nature.

Avoiding budgeting

Some businesses are in relatively mature stages of their life cycle or operate in a mature and stable industry. These companies do not have to plan for any major changes or discontinuities. Next year will be a great deal like last year. The benefits of going through a formal budgeting process do not seem worth the time and cost.

At the other extreme, a business may be in a very uncertain environment, where attempting to predict the future seems pointless. A business may lack the expertise and experience to prepare budgeted financial statements, and it may not be willing to pay the cost for a CPA or outside consultant to help.

But what if your business applies for a loan? The lender will demand to see a well-thought-out budget in your business plan, right? Not necessarily. I served on a local bank's board of directors for several years, and I reviewed many loan requests. Our bank did not expect a business to include a set of budgeted financial statements in the loan request package. Of course, we did demand to see the latest financial statements of the business. Very few of our smaller business clients prepared budgeted financial statements.

Relying on internal accounting reports

Although many businesses do not prepare budgets, they still establish fairly specific goals and performance objectives that serve as good benchmarks for management control. Every business — whether it does budgeting or not — should design internal accounting reports that provide the information managers need in running a business. Obviously, managers should keep close tabs on what’s going on throughout the business. Some years ago, in one of my classes, I asked students for a short definition of management control. One student answered that management control means “watching everything.” That’s not bad.



Even in a business that doesn’t do budgeting, managers depend on regular profit reports, balance sheets, and cash flow statements. These key internal financial statements should provide detailed management control information. These feedback reports are also used for looking ahead and thinking about the future. Other specialized accounting reports may be needed as well.

Making reports useful for management control

Most business managers, in my experience, would tell you that the accounting reports they get are reasonably good for management control. Their accounting reports provide the detailed information they need for keeping a close watch on the 1,001 details of the business (or their particular sphere of responsibility in the business organization).



What are the criticisms I hear most often about internal accounting reports?

- ✓ They contain too much information.
- ✓ All the information is flat, as if each piece of information is equally relevant.

Managers are very busy people and have only so much time to read the accounting reports coming to them. Managers have a valid beef on this score, I think. Ideally, significant deviations and problems should be highlighted in the accounting reports they receive — but separating the important from the not-so-important is easier said than done.

Making reports useful for decision-making

If you were to ask a cross-section of business managers how useful their accounting reports are for *making decisions*, you would get a different answer than how good the accounting reports are for management control.

Business managers make many decisions affecting profit: setting sales prices, buying products, determining wages and salaries, hiring independent contractors, and purchasing fixed assets, for example. Managers should carefully analyze how their actions would impact profit before reaching final decisions. Managers need internal profit reports that are good profit models — that

make clear the critical variables that affect profit (see Figure 10-1 in the next section for an example). Well-designed management profit reports are absolutely essential for helping managers make good decisions.



Keep in mind that almost all business decisions involve nonfinancial and non-quantifiable factors that go beyond the information included in accounting reports. For example, the accounting department of a business can calculate the cost savings of a wage cut, or the elimination of overtime hours by employees, or a change in the retirement plan for employees — and the manager would certainly look at this data. But such decisions must consider many other factors, such as effects on employee morale and productivity, the possibility of the union going on strike, legal issues, and so on. In short, accounting reports provide only part of the information needed for business decisions, though an essential part for sure.

Making reports clear and straightforward

Needless to say, the internal accounting reports to managers should be clear and straightforward. The manner of presentation and means of communication should get the manager's attention, and a manager should not have to call the accounting department for explanations.



Designing truly useful management accounting reports is a very challenging task. Within one business organization, an accounting report may have to be somewhat different from one profit center to the next. Standardizing accounting reports may seem like a good idea but may not be in the best interests of the various managers throughout the business — who have different responsibilities and different problems to deal with.

Many of the management accounting reports that I've seen could be improved — substantially! Accounting systems pay so much attention to the demands of preparing external financial statements and tax returns that managers' needs for good internal reports are often overlooked or ignored. The accounting reports in many businesses do not speak to the managers receiving them; the reports are too voluminous and technical and are not focused on the most urgent and important problems facing the managers. Designing good internal accounting reports for managers is a challenging task, to be sure. But every business should take a hard look at its internal management accounting reports and identify what should be improved.

Watching Budgeting in Action

Suppose you're the general manager of one of a large company's several divisions, which is a major profit center of the business. (I discuss profit centers in Chapter 9.) You have broad authority to run this division, as well as the responsibility for meeting the financial expectations for your division. To be

more specific, your profit responsibility is to produce a satisfactory annual operating profit, which is the amount of earnings before interest and income tax (EBIT). (Interest and income tax expenses are handled at the headquarters level in the organization.)

The CEO has made clear to you that she expects your division to increase EBIT during the coming year by about 10 percent, or \$256,000 to be exact. In fact, she has asked you to prepare a budgeted profit report showing your plan of action for increasing your division's EBIT by this target amount. She also has asked you to prepare a summary for the budgeted cash flow from operating activities based on your profit plan for the coming year.

Figure 10-1 presents the P&L report of your division for the year just ended. The format of this accounting report follows the profit report template explained in Chapter 9, which is designed to mark a clear path for understanding profit behavior and how to increase profit. Note that fixed operating expenses are separated from the two variable operating expenses. (Your actual reports may include more detailed information about sales and expenses.) To keep number-crunching to a minimum, I assume that you sell only one product.

Most businesses, or the major divisions of a large business, sell a mix of several different products. General Motors, for example, sells many makes and models of autos and light trucks, to say nothing about its other products. The next time you visit your local hardware store, take the time to look at the number of products on the shelves. The assortment of products sold by a business and the quantities sold of each that make up its total sales revenue is referred to as its *sales mix*. As a general rule, certain products have higher profit margins than others. Some products may have extremely low profit margins, so they are called *loss leaders*.

	Year Just Ended	
	260,000 units	
	Per Unit	Totals
Sales volume		
Sales revenue	\$100.00	\$26,000,000
Cost of goods sold	\$55.00	\$14,300,000
Gross margin	\$45.00	\$11,700,000
Revenue-driven expenses	\$8.00	\$2,080,000
Volume-driven expenses	\$5.00	\$1,300,000
Margin	\$32.00	\$8,320,000
Fixed expenses		\$5,720,000
Operating profit		\$2,600,000

Figure 10-1:
P&L report
for the year
just ended.

The marketing strategy for loss leaders is to use them as magnets, so customers buy your higher profit margin products along with the loss leaders. Shifting the sales mix to a higher proportion of higher profit margin products has the effect of increasing the average profit margin on all products sold. (A shift to lower profit margin products would have the opposite effect, of course.) Budgeting sales revenue and expenses for the coming year must include any planned shifts in the company's sales mix.

Developing your profit strategy and budgeted profit report

Being an experienced manager, you know the importance of protecting your unit margins. Your division sold 260,000 units in the year just ended (see Figure 10-1). Your margin per unit was \$32. If all your costs were to remain the same next year (you wish!), you could sell 8,000 more units to reach your \$256,000 profit improvement goal:

$$\begin{aligned} \$256,000 \text{ additional margin needed} \div \$32 \text{ margin per} \\ \text{unit} = 8,000 \text{ additional units} \end{aligned}$$

The relatively small increase in your sales volume (8,000 additional units \div 260,000 units = 3.1 percent) should not increase your fixed expenses — unless you're already operating at full capacity and would have to increase warehouse space and delivery capacity to take on even a small increase in sales volume. But realistically, some or most of your costs will probably increase next year.

Let's take this one step at a time. First, we look at your *fixed costs* for the coming year. You and your managers, with the assistance of your trusty accounting staff, have analyzed your fixed expenses line by line for the coming year. Some of these fixed expenses will actually be reduced or eliminated next year. But the large majority of these costs will continue next year, and most are subject to inflation. Based on careful studies and estimates, you and your staff forecast total fixed operating expenses for next year will be \$6,006,000, which is \$286,000 more than the year just ended.

Fortunately, you think that your volume-driven variable expenses should not increase next year. These are mainly transportation costs, and the shipping industry is in a very competitive, hold-the-price-down mode of operations that should last through the coming year. The cost per unit shipped should not increase.

You have decided to hold the revenue-driven operating expenses at 8 percent of sales revenue during the coming year, the same as for the year just ended. These are sales commissions, and you have already announced to your sales staff that their sales commission percentage will remain the same during the coming year. On the other hand, your purchasing manager has told you to plan on a 4 percent product cost increase next year — from \$55 per unit to \$57.20 per unit, or an increase of \$2.20 per unit.

Summing up to this point, your total fixed expenses will increase \$286,000 next year, and the \$2.20 forecast product cost will drop your margin per unit from \$32.00 to \$29.80 if your sales price does not increase. One way to achieve your profit goal next year would be to load all the needed increase on sales volume and keep sales price the same. (I'm not suggesting that this strategy is a good one, but it serves as a good point of departure.)

So, what would your sales volume have to be next year? Remember: You want to increase profit \$256,000 (orders from on high), and your fixed expenses will increase \$286,000 next year. So, your margin goal for next year is determined as follows:

$$\begin{aligned} & \$8,320,000 \text{ margin for year just ended} + \$286,000 \\ & \text{fixed expenses increase} + \$256,000 \text{ profit} \\ & \text{improvement goal} = \$8,862,000 \text{ margin goal} \end{aligned}$$

Without bumping sales price, your margin would be only \$29.80 per unit next year. At this margin per unit you will have to sell over 297,000 units:

$$\begin{aligned} & \$8,862,000 \text{ total margin goal} \div \$29.80 \text{ margin per unit} \\ & = 297,383 \text{ units sales volume} \end{aligned}$$

Compared with the 260,000 units sales volume in the year just ended, you would have to increase sales by more than 37,000 units, or more than 14 percent.

You and your sales manager conclude that sales volume cannot be increased 14 percent. You'll have to raise the sales price to compensate for the increase in product cost and to help cover the fixed cost increases. After much discussion, you and your sales manager decide to increase the sales price 3 percent, from \$100 to \$103. Based on the 3 percent sales price increase and the forecast product cost increase, your unit margin next year would be as follows:

Budgeted Unit Margin Next Year	
Sales price	\$103.00
Product cost	(57.20)
Revenue-driven operating expenses (@ 8.0%)	(8.24)
Volume-driven operating expenses per unit	<u>(5.00)</u>
Equals: Margin per unit	\$32.56

At the budgeted \$32.56 margin per unit, you determine the sales volume needed next year to reach your profit goal as follows:

$$\begin{aligned} & \$8,862,000 \text{ total margin goal next year} \div \$32.56 \\ & \text{margin per unit} = 272,174 \text{ units sales volume} \end{aligned}$$

This sales volume is about 5 percent higher than last year (12,174 additional units over the 260,000 sales volume last year = about a 5 percent increase).

You decide to go with the 3 percent sales price increase combined with the 5 percent sales volume growth as your official budget plan. Accordingly, you forward your budgeted profit report for the coming year to the CEO. Figure 10-2 summarizes this profit budget for the coming year, with comparative figures for the year just ended.

	Actual for Year Just Ended		Budgeted for Coming Year	
	260,000 units		272,170 units	
	Per Unit	Totals	Per Unit	Totals
Sales revenue	\$100.00	\$26,000,000	\$103.00	\$28,033,968
Cost of goods sold	\$55.00	\$14,300,000	\$57.20	\$15,568,378
Gross margin	\$45.00	\$11,700,000	\$45.80	\$12,465,590
Revenue-driven expenses	\$8.00	\$2,080,000	\$8.24	\$2,242,718
Volume-driven expenses	\$5.00	\$1,300,000	\$5.00	\$1,360,872
Margin	\$32.00	\$8,320,000	\$32.56	\$8,862,000
Fixed expenses		\$5,720,000		\$6,006,000
Operating profit		\$2,600,000		\$2,856,000

Figure 10-2:
Budgeted
profit report
for coming
year.



The main page of your budgeted profit report is supplemented with appropriate schedules to provide additional detail about sales by types of customers and other relevant information. Also, your budgeted profit plan is broken down into quarters (perhaps months) to provide benchmarks for comparing actual performance during the year against your budgeted targets and timetable.

Budgeting cash flow for the coming year

The budgeted profit plan (refer to Figure 10-2) is the main focus of attention, but the CEO also requests that all divisions present a *budgeted cash flow from operating activities* for the coming year. **Remember:** The profit you're responsible for as general manager of the division is the amount of earnings before interest and income tax (EBIT).

Chapter 6 explains that increases in accounts receivable, inventory, and prepaid expenses *hurt* cash flow from operating activities and that increases in accounts payable and accrued liabilities *help* cash flow. In reading the budgeted profit report for the coming year (refer to Figure 10-2), you see that virtually every budgeted figure for the coming year is higher than the figure for the year just ended. Therefore, your operating assets and liabilities will increase at the higher sales revenue and expense levels next year — unless you can implement changes to prevent the increases.

For example, sales revenue increases from \$26,000,000 to the budgeted \$28,033,968 next year (refer to Figure 10-2) — an increase of \$2,033,968. Your accounts receivable balance was five weeks of annual sales last year. Do you plan to tighten up the credit terms offered to customers next year — a year in which you will raise the sales price and also plan to increase sales volume? I doubt it. More likely, you will attempt to keep your accounts receivable balance at five weeks of annual sales.

Assume that you decide to offer your customers the same credit terms next year. Thus, the increase in sales revenue will cause accounts receivable to increase by \$195,574:

$$\begin{array}{l} 5/52 \times \$2,033,968 \text{ sales revenue increase} = \$195,574 \\ \text{accounts receivable increase} \end{array}$$



Last year, inventory was 13 weeks of annual cost of goods sold expense. You may be in the process of implementing inventory reduction techniques. If you really expect to reduce the average time inventory will be held in stock before being sold, you should inform your accounting staff so that they can include this key change in the balance sheet and cash flow models. Otherwise, they will assume that the past ratios for these vital connections will continue next year.

Assuming your inventory holding period remains the same, your inventory balance will increase more than \$317,000:

$$\begin{array}{l} 13/52 \times \$1,268,378 \text{ cost of goods sold expense} \\ \text{increase} = \$317,055 \text{ inventory increase} \end{array}$$

Figure 10-3 presents a brief summary of your budgeted cash flow from operating activities based on the information given for this example and using your historical ratios for short-term assets and liabilities driven by sales and expenses. **Note:** Increases in accrued interest payable and income tax payable are not included in your budgeted cash flow. Your profit responsibility ends at the operating profit line, or earnings before interest and income tax expenses.

Figure 10-3:
Budgeted
cash flow
from
operating
activities
for the
coming
year.

Budgeted profit (See Figure 10-2)	\$2,856,000
Accounts receivable increase	(195,574)
Inventory increase	(317,095)
Prepaid expenses increase	(26,226)
Depreciation expense	835,000
Accounts payable increase	34,968
Accrued expenses payable increase	52,453
Budgeted cash flow from operating profit	<u>\$3,239,526</u>

You submit this budgeted cash flow from operating activities (see Figure 10-3) to headquarters. Top management expects you to control the increases in your operating assets and liabilities so that the actual cash flow generated by your division next year comes in on target. The cash flow of your division (minus, perhaps, a small amount needed to increase the working cash balance held by your division) will be transferred to the central treasury of the business. Headquarters will be planning on you generating about \$3.2 million cash flow during the coming year.

Considering Capital Expenditures and Other Cash Needs

This chapter focuses on profit budgeting for the coming year and budgeting the cash flow from that profit. These are the two hardcore components of business budgeting, but not the whole story. Another key element of the budgeting process is to prepare a *capital expenditures budget* for your division that goes to top management for review and approval. A business has to take a hard look at its long-term operating assets — in particular, the capacity, condition, and efficiency of these resources — and decide whether it needs to expand and modernize its property, plant, and equipment.

In most cases, a business needs to invest substantial sums of money in purchasing new fixed assets or retrofitting and upgrading its old fixed assets. These long-term investments require major cash outlays. So, each division of a business prepares a formal list of the fixed assets to be purchased, constructed, and upgraded. The money for these major outlays comes from the central treasury of the business. Accordingly, the overall capital expenditures

budget goes to the highest levels in the organization for review and final approval. The chief financial officer, the CEO, and the board of directors of the business go over a capital expenditure budget request with a fine-toothed comb (or at least they *should*).



At the company-wide level, the financial officers merge the profit and cash flow budgets of all profit centers and cost centers of the business. (A *cost center* is an organizational unit that does not generate revenue, such as the legal and accounting departments.) The budgets submitted by one or more of the divisions may be returned for revision before final approval is given. One main concern is whether the collective cash flow total from all the units provides enough money for the capital expenditures that will be made during the coming year — and to meet the other demands for cash, such as for cash distributions from profit. The business may have to raise more capital from debt or equity sources during the coming year to close the gap between cash flow from operating activities and its needs for cash. This is a central topic in the field of business finance and beyond the coverage of this book.

Business budgeting versus government budgeting: Only the name is the same

Business and government budgeting are more different than alike. Government budgeting is preoccupied with allocating scarce resources among many competing demands. From federal agencies down to local school districts, government entities have only so much revenue available. They have to make very difficult choices regarding how to spend their limited tax revenue.

Formal budgeting is legally required for almost all government entities. First, a budget request is submitted. After money is appropriated, the budget document becomes legally binding on the government agency. Government budgets are legal straitjackets; the government entity

has to stay within the amounts appropriated for each expenditure category. Any changes from the established budgets need formal approval and are difficult to get through the system.

A business is not legally required to use budgeting. A business can implement and use its budget as it pleases, and it can even abandon its budget in midstream. Unlike the government, the revenue of a business is not constrained; a business can do many things to increase sales revenue. A business can pass its costs to its customers in the sales prices it charges. In contrast, government has to raise taxes to spend more (except for federal deficit spending, of course).

Chapter 11

Cost Concepts and Conundrums

In This Chapter

- ▶ Determining costs: The second most important thing accountants do
 - ▶ Appreciating the different needs for cost information
 - ▶ Contrasting costs for understanding them better
 - ▶ Determining product cost for manufacturers
 - ▶ Padding profit by manufacturing too many products
-

Measuring costs is the second most important thing accountants do, right after measuring profit. (Well, the Internal Revenue Service might think that measuring taxable income is the most important.) But really, can measuring a cost be very complicated? You just take numbers off a purchase invoice and call it a day, right? Not if your business manufactures the products you sell — that's for sure! In this chapter, I demonstrate that a cost, any cost, is not as obvious and clear-cut as you may think. Yet, obviously, costs are extremely important to businesses and other organizations.

Consider an example close to home: Suppose you just returned from the grocery store with several items in the bag. What's the cost of the loaf of bread you bought? Should you include the sales tax? Should you include the cost of gas you used driving to the store? Should you include some amount of depreciation expense on your car? Suppose you returned some aluminum cans for recycling while you were at the grocery store, and you were paid a small amount for the cans. Should you subtract this amount against the total cost of your purchases? Or should you subtract the amount directly against the cost of only the sodas in aluminum cans that you bought? And, is cost the *before-tax* cost? In other words, is your cost equal to the amount of income you had to earn before income tax so that you had enough after-tax income to buy the items?

These questions about the cost of your groceries are interesting (well, to me at least). But you don't really have to come up with definite answers for such questions in managing your personal financial affairs. Individuals don't have to keep cost records of their personal expenditures, other than what's needed for their annual income tax returns. In contrast, businesses must carefully record all their costs correctly so that profit can be determined each period, and so that managers have the information they need to make decisions and to make a profit.

Looking down the Road to the Destination of Costs

All businesses that sell products must know their product costs — in other words, the costs of each and every item they sell. Companies that manufacture the products they sell — as opposed to distributors and retailers of products — have many problems in figuring out their product costs. Two examples of manufactured products are a new Cadillac just rolling off the assembly line at General Motors and a copy of my book, *Accounting For Dummies*, 4th Edition, hot off the printing presses.

Most production (manufacturing) processes are fairly complex, so product cost accounting for manufacturers is fairly complex; every step in the production process has to be tracked carefully from start to finish. Many manufacturing costs cannot be directly matched with particular products; these are called *indirect costs*. To arrive at the *full cost* of each product manufactured, accountants devise methods for allocating indirect production costs to specific products. Surprisingly, generally accepted accounting principles (GAAP) provide very little authoritative guidance for measuring product cost. Therefore, manufacturing businesses have more than a little leeway regarding how to determine their product costs. Even businesses in the same industry — Ford versus General Motors, for example — may use different product cost accounting methods.

Accountants determine many other costs, in addition to product costs:

- ✓ The costs of departments, regional distribution centers, and other organizational units of the business
- ✓ The cost of the retirement plan for the company's employees
- ✓ The cost of marketing programs and advertising campaigns
- ✓ The cost of restructuring the business or the cost of a major recall of products sold by the business, when necessary

A common refrain among accountants is “different costs for different purposes.” True enough, but at its core, cost accounting serves two broad purposes: measuring profit and providing relevant information to managers for planning, control, and decision-making.



In my experience, people are inclined to take cost numbers for granted, as if they were handed down on stone tablets. The phrase *actual cost* often gets tossed around without a clear definition. An actual cost depends entirely on the particular methods used to measure the cost. I can assure you that these cost measurement methods have more in common with the scores from judges in an ice skating competition than the times clocked in a Formula One auto race. Many arbitrary choices are behind every cost number you see.

There's no one-size-fits-all definition of cost, and there's no one correct and "best-in-all-circumstances" method of measuring cost.

The conundrum is that, in spite of the inherent ambiguity in determining costs, we need exact amounts for costs. In order to understand the income statement and balance sheet that managers use in making their decisions, they need to understand a little bit about the choices an accountant has to make in measuring costs. Some cost accounting methods result in conservative profit numbers; other methods boost profit, at least in the short run.

This chapter covers cost concepts and cost measurement methods that apply to all businesses, as well as basic product cost accounting of manufacturers. I discuss how a manufacturer could be fooling around with its production output to manipulate product cost for the purpose of artificially boosting its profit figure. (Service businesses encounter their own problems in allocating their operating costs for assessing the profitability of their separate sales revenue sources.)

Are Costs Really That Important?

Without good cost information, a business operates in the dark. Cost data is needed for the following purposes:

- ✓ **Setting sales prices:** The common method for setting sales prices (known as *cost-plus* or *markup on cost*) starts with cost and then adds a certain percentage. If you don't know exactly how much a product costs, you can't be as shrewd and competitive in your pricing as you need to be. Even if sales prices are dictated by other forces and not set by managers, managers need to compare sales prices against product costs and other costs that should be matched against each sales revenue source.
- ✓ **Formulating a legal defense against charges of predatory pricing practices:** Many states have laws prohibiting businesses from selling below cost except in certain circumstances. And a business can be sued under federal law for charging artificially low prices intended to drive its competitors out of business. Be prepared to prove that your lower pricing is based on lower costs and not on some illegitimate purpose.
- ✓ **Measuring gross margin:** Investors and managers judge business performance by the bottom-line profit figure. This profit figure depends on the *gross margin* figure you get when you subtract your cost of goods sold expense from your sales revenue. Gross margin (also called *gross profit*) is the first profit line in the income statement (see Figures 4-1 and 9-1, as well as Figure 11-1 later in this chapter, for examples). If gross margin is wrong, bottom-line net income is wrong — no two ways about it. The cost of goods sold expense depends on having correct product costs (see "Assembling the Product Cost of Manufacturers" later in this chapter).



- ✓ **Valuing assets:** The balance sheet reports cost values for many (though not all) assets. To understand the balance sheet you should understand the cost basis of its inventory and certain other assets. See Chapter 5 for more about assets and how asset values are reported in the balance sheet (also called the *statement of financial condition*).
- ✓ **Making optimal choices:** You often must choose one alternative over others in making business decisions. The best alternative depends heavily on cost factors, and you have to be careful to distinguish *relevant* costs from *irrelevant* costs, as I describe in the section “Relevant versus irrelevant costs,” later in this chapter.

In most situations, the book value of a fixed asset is an *irrelevant* cost. Say book value is \$35,000 for a machine used in the manufacturing operations of the business. This is the amount of original cost that has not yet been charged to depreciation expense since it was acquired, and it may seem quite relevant. However, in deciding between keeping the old machine or replacing it with a newer, more efficient machine, the *disposable value* of the old machine is the relevant amount, not the undepreciated cost balance of the asset. Suppose the old machine has only a \$20,000 salvage value at this time; this is the relevant cost for the alternative of keeping it for use in the future — not the \$35,000 that hasn’t been depreciated yet. In order to keep using it, the business forgoes the \$20,000 it could get by selling the asset, and this \$20,000 is the relevant cost in this decision situation. Making decisions involves looking forward at the future cash flows of each alternative — not looking backward at historical-based cost values.

Becoming More Familiar with Costs

The following sections explain important cost distinctions that managers should understand in making decisions and exercising control. Also, these cost distinctions help managers better appreciate the cost figures that accountants attach to products that are manufactured or purchased by the business.

Retailers (such as Wal-Mart or Costco) purchase products in a condition ready for sale to their customers — although the products have to be removed from shipping containers, and a retailer does a little work making the products presentable for sale and putting the products on display. Manufacturers don’t have it so easy; their product costs have to be “manufactured” in the sense that the accountants have to accumulate various production costs and compute the cost per unit for every product manufactured. I focus on the special cost concerns of manufacturers in the upcoming section “Assembling the Product Cost of Manufacturers.”

Accounting versus economic costs

Accountants focus mainly on *actual costs* (though they disagree regarding how exactly to measure these costs). Actual costs are rooted in the actual, or historical, transactions and operations of a business. Accountants also determine *budgeted costs* for businesses that prepare budgets (see Chapter 10), and they develop *standard costs* that serve as yardsticks to compare with the actual costs of a business.

Other concepts of cost are found in economic theory. You encounter a variety of economic cost terms when reading *The Wall Street Journal*, as well as in many business discussions and deliberations. Don't reveal your ignorance of the following cost terms:

- ✔ **Opportunity cost:** The amount of income (or other measurable benefit) given up when you follow a better course of action. For example, say that you quit your \$50,000 job, invest \$200,000 to start a new business, and end up netting \$80,000 in your new business for the year. Suppose also that you would have earned 5 percent on the \$200,000 (a total of \$10,000) if you'd kept the money in whatever investment you took it from. So you gave up a \$50,000 salary and \$10,000 in investment income with your course of action; your opportunity cost is \$60,000. Subtract that figure from what your actual course of action netted you — \$80,000 — and you end up with a “real” economic profit of \$20,000. Your income is \$20,000 better by starting your new business according to economic theory.
- ✔ **Marginal cost:** The *incremental*, out-of-pocket outlay required for taking a particular course of action. Generally speaking, it's the same thing as a *variable* cost (see “Fixed versus variable costs,” later in this chapter). Marginal costs are important, but in actual practice managers must recover fixed (or nonmarginal) costs as well as marginal costs through sales revenue in order to remain in business for any extent of time. Marginal costs are most relevant for analyzing one-time ventures, which don't last over the long-term.
- ✔ **Replacement cost:** The estimated amount it would take today to purchase an asset that the business already owns. The longer ago an asset was acquired, the more likely its current replacement cost is higher than its original cost. Economists are of the opinion that current replacement costs are relevant in making rational economic decisions. For insuring assets against fire, theft, and natural catastrophes, the current replacement costs of the assets are clearly relevant. Other than for insurance, however, replacement costs are not on the front burners of decision-making — except in situations in which one alternative being seriously considered actually involves replacing assets.
- ✔ **Imputed cost:** An ideal, or hypothetical, cost number that is used as a benchmark or yardstick against which actual costs are compared. Two examples are *standard costs* and the *cost of capital*. Standard costs are set in advance for the manufacture of products during the coming period, and then actual costs are compared against standard costs to identify significant variances. The cost of capital is the weighted average of the interest rate on debt capital and a target rate of return that should be earned on equity capital. The *economic value added* (EVA) method compares a business's cost of capital against its actual return on capital, to determine whether the business did better or worse than the benchmark.

For the most part, these types of cost aren't reflected in financial reports. I've included them here to familiarize you with terms you're likely to see in the financial press and hear on financial talk shows. Business managers toss these terms around a lot.



I cannot exaggerate the importance of correct product costs (for businesses that sell products, of course). The total cost of goods (products) sold is the first, and usually the largest, expense deducted from sales revenue in measuring profit. The bottom-line profit amount reported in a business's income statement depends heavily on whether its product costs have been measured properly during that period. Also, keep in mind that product cost is the value for the inventory asset reported in the balance sheet of a business. (For a balance sheet example see Figure 5-2.)

Direct versus indirect costs

You might say that the starting point for any sort of cost analysis, and particularly for accounting for the product costs of manufacturers, is to clearly distinguish between *direct* and *indirect* costs. Direct costs are easy to match with a process or product, whereas indirect costs are more distant and have to be allocated to a process or product. Here are more details:

- ✓ **Direct costs:** Can be clearly attributed to one product or product line, or one source of sales revenue, or one organizational unit of the business, or one specific operation in a process. An example of a direct cost in the book publishing industry is the cost of the paper that a book is printed on; this cost can be squarely attached to one particular phase of the book production process.
- ✓ **Indirect costs:** Are far removed from and cannot be naturally attached to specific products, organizational units, or activities. A book publisher's phone bill is a cost of doing business but can't be tied down to just one step in the book editorial and production process. The salary of the purchasing officer who selects the paper for all the books is another example of a cost that is indirect to the production of particular books.



Each business must determine a method of allocating indirect costs to different products, sources of sales revenue, organizational units, and so on. Most allocation methods are far from perfect and, in the final analysis, end up being arbitrary to one degree or another. Business managers should always keep an eye on the allocation methods used for indirect costs and take the cost figures produced by these methods with a grain of salt. If I were called in as an expert witness in a court trial involving costs, the first thing I'd do is critically analyze the allocation methods used by the business for its indirect costs. If I were on the side of the defendant, I'd do my best to defend the allocation methods. If I were on the side of the plaintiff, I'd do my best to discredit the allocation methods — there are always grounds for criticism.

The cost of filling the gas tank as I drive from Denver to San Diego and back to consult with my coauthor and son, Tague, about the book we wrote together, *Small Business Financial Management Kit For Dummies* (Wiley), is a direct cost of making the trip. The annual auto license plate fee that I pay to the state of Colorado is an indirect cost of the trip, although it is a direct cost of having the car available during the year.

Fixed versus variable costs

If your business sells 100 more units of a certain item, some of your costs increase accordingly, but others don't budge one bit. This distinction between *variable* and *fixed* costs is crucial:

- ✔ **Variable costs:** Increase and decrease in proportion to changes in sales or production level. Variable costs generally remain the same per unit of product, or per unit of activity. Additional units manufactured or sold cause variable costs to increase in concert. Fewer units manufactured or sold result in variable costs going down in concert.
- ✔ **Fixed costs:** Remain the same over a relatively broad range of sales volume or production output. Fixed costs are like a dead weight on the business. Its total fixed costs for the period are a hurdle it must overcome by selling enough units at high enough margins per unit in order to avoid a loss and move into the profit zone. (Chapter 9 explains the *break-even point*, which is the level of sales needed to cover fixed costs for the period.)

Note: The distinction between variable and fixed costs is essential for understanding and analyzing profit behavior, which I explain in Chapter 9.

Relevant versus irrelevant costs

Not every cost is important to every decision a manager needs to make. Hence the distinction between relevant and irrelevant costs:

- ✔ **Relevant costs:** Costs that should be considered and included in your analysis when deciding on a future course of action. Relevant costs are *future* costs — costs that you would incur, or bring upon yourself, depending on which course of action you take. For example, say that you want to increase the number of books that your business produces next year in order to increase your sales revenue, but the cost of paper has just shot up. Should you take the cost of paper into consideration? Absolutely — that cost will affect your bottom-line profit and may negate any increase in sales volume that you experience (unless you increase the sales price). The cost of paper is a relevant cost.

- ✔ **Irrelevant (or sunk) costs:** Costs that should be disregarded when deciding on a future course of action; if brought into the analysis, these costs could cause you to make the wrong decision. An irrelevant cost is a vestige of the past — that money is gone. For this reason, irrelevant costs are also called *sunk costs*. For example, suppose that your supervisor tells you to expect a slew of new hires next week. All your staff members use computers now, but you have a bunch of typewriters gathering dust in the supply room. Should you consider the cost paid for those typewriters in your decision to buy computers for all the new hires? Absolutely not — that cost should have been written off and is no match for the cost you'd pay in productivity (and morale) for new employees who are forced to use typewriters.

Generally speaking, fixed costs are irrelevant when deciding on a future course of action, assuming that they're truly fixed and can't be increased or decreased over the short term. Most variable costs are relevant because they depend on which alternative is selected.



Although fixed costs themselves are usually irrelevant in decision making, these costs often indicate something about a business's *capacity* — how much building space it has, how many machine-hours are available for use, how many hours of labor can be worked, and so on. Managers have to figure out the best way to utilize these capacities. For example, suppose your retail business pays an annual building rent of \$200,000, which is a fixed cost (unless the rental contract with the landlord has a rent escalation clause based on sales revenue). The rent, which gives the business the legal right to occupy the building, provides 15,000 square feet of retail and storage space. You should figure out which sales mix of products will generate the highest total *margin* — equal to total sales revenue less total variable costs of making the sales, including the costs of the goods sold and all variable costs driven by sales revenue and sales volume.

Actual, budgeted, and standard costs

The actual costs a business incurs may differ (though we hope not significantly) from its budgeted and standard costs:

- ✔ **Actual costs:** Historical costs, based on actual transactions and operations for the period just ended, or going back to earlier periods. Financial statement accounting is mainly (though not entirely) based on a business's actual transactions and operations; the basic approach to determining annual profit is to record the financial effects of actual transactions and allocate historical costs to the periods benefited by the costs.
- ✔ **Budgeted costs:** Future costs, for transactions and operations expected to take place over the coming period, based on forecasts and established goals. Fixed costs are budgeted differently than variable costs. For example, if sales volume is forecast to increase by 10 percent, variable costs will definitely increase accordingly, but fixed costs may or may not need to be

increased to accommodate the volume increase. In Chapter 10, I explain the budgeting process and budgeted financial statements.

- ✓ **Standard costs:** Costs, primarily in the area of manufacturing, that are carefully engineered based on detailed analysis of operations and forecast costs for each component or step in an operation. Developing standard costs for variable production costs is relatively straightforward because most are direct costs. In contrast, most fixed costs are indirect, and standard costs for fixed costs are necessarily based on more arbitrary methods (see “Direct versus indirect costs,” earlier in this chapter). **Note:** Some variable costs are indirect and have to be allocated to specific products in order to come up with a full (total) standard cost of the product.

Product versus period costs

Some costs are linked to particular products, and others are not:

- ✓ **Product costs:** Manufacturing costs attached directly or allocated to particular products. The cost is recorded in the inventory asset account and stays in that asset account until the product is sold, at which time the cost goes into the cost of goods sold expense account. (See Chapters 4 and 5 for more about these accounts; also, see Chapter 7 for alternative methods for selecting which product costs are first charged to the cost of goods sold expense.)



For example, the cost of a new Ford Focus sitting on a car dealer’s showroom floor is a product cost. The dealer keeps the cost in the inventory asset account until you buy the car, at which point the dealer charges the cost to the cost of goods sold expense.

- ✓ **Period costs:** Costs that are *not* attached to particular products. These costs do not spend time in the “waiting room” of inventory. Period costs are recorded as expenses immediately; unlike product costs, period costs don’t pass through the inventory account first. Advertising costs, for example, are accounted for as period costs and recorded immediately in an expense account. Also, research and development costs are treated as period costs (with some exceptions).

Separating product costs and period costs is particularly important for manufacturing businesses, as you find out in the following section.

Assembling the Product Cost of Manufacturers

Businesses that manufacture products have several additional cost problems to deal with, compared with retailers and distributors. I use the term *manufacture* in the broadest sense: Automobile makers assemble cars, beer companies brew beer, automobile gasoline companies refine oil, DuPont makes products through chemical synthesis, and so on. Retailers (also called *merchandisers*) and distributors, on the other hand, buy products in a condition ready for resale to the end consumer. For example, Levi Strauss manufactures clothing, and Macy's is a retailer that buys from Levi Strauss and sells the clothes to the public. The following sections describe costs unique to manufacturers.

Minding manufacturing costs

Manufacturing costs consist of four basic types:

- ✓ **Raw materials (also called *direct materials*):** What a manufacturer buys from other companies to use in the production of its own products. For example, General Motors buys tires from Goodyear (or other tire manufacturers) that then become part of GM's cars.
- ✓ **Direct labor:** The employees who work on the production line.
- ✓ **Variable overhead:** Indirect production costs that increase or decrease as the quantity produced increases or decreases. An example is the cost of electricity that runs the production equipment: You pay for the electricity for the whole plant, not machine by machine, so you can't attach this cost to one particular part of the process. But if you increase or decrease the use of those machines, the electricity cost increases or decreases accordingly. (In contrast, the monthly utility bill for a company's office and sales space probably is fixed for all practical purposes.)
- ✓ **Fixed overhead:** Indirect production costs that do *not* increase or decrease as the quantity produced increases or decreases. These fixed costs remain the same over a fairly broad range of production output levels (see "Fixed versus variable costs," earlier in this chapter). Three significant fixed manufacturing costs are
 - Salaries for certain production employees who don't work directly on the production line, such as a vice president, safety inspectors, security guards, accountants, and shipping and receiving workers.
 - Depreciation of production buildings, equipment, and other manufacturing fixed assets.
 - Occupancy costs, such as building insurance, property taxes, and heating and lighting charges.

Figure 11-1 presents an annual income statement for a manufacturer and includes information about its manufacturing costs for the year. The cost of goods sold expense depends directly on the product cost from the summary of manufacturing costs that appears below the income statement. A business may manufacture 100 or 1,000 different products, or even more, and the business must prepare a summary of manufacturing costs for each product. To keep our example easy to follow (but still realistic), Figure 11-1 presents a scenario for a one-product manufacturer. The multi-product manufacturer has some additional accounting problems, but I can't provide that level of detail here. This example illustrates the fundamental accounting problems and methods of all manufacturers.

Income Statement for Year		
Sales volume	110,000 units	
	Per Unit	Totals
Sales revenue	\$1,400	\$154,000,000
→ Cost of goods sold expense	(760)	(83,600,000)
Gross margin	\$640	\$70,400,000
Variable operating expenses	(300)	(33,000,000)
Margin	\$340	\$37,400,000
Fixed operating expenses	(195)	(21,450,000)
Earnings before interest and income tax (EBIT)	<u>\$145</u>	<u>\$15,950,000</u>
Interest expense		(2,750,000)
Earnings before income tax		\$13,200,000
Income tax expense		(4,488,000)
Net income		<u><u>\$8,712,000</u></u>
Manufacturing Costs for Year		
Production capacity	150,000 units	
Actual output	120,000 units	
	Per Unit	Totals
Production Cost Components		
Raw materials	\$215	\$25,800,000
Direct labor	125	15,000,000
Variable manufacturing overhead costs	70	8,400,000
Total variable manufacturing costs	<u>\$410</u>	<u>\$49,200,000</u>
Fixed manufacturing overhead costs	350	42,000,000
Total manufacturing costs	<u><u>\$760</u></u>	<u><u>\$91,200,000</u></u>
To 10,000 units inventory increase		(7,600,000)
To 110,000 units sold		<u><u>\$83,600,000</u></u>

Figure 11-1:
Example for
determining
the product
cost of
a manu-
facturer.



The information in the manufacturing costs summary below the income statement (see Figure 11-1) is highly confidential and for management eyes only. Competitors would love to know this information. A company may enjoy a significant cost advantage over its competitors and definitely does not want its cost data to get into their hands.

Classifying costs properly

Two vexing issues rear their ugly heads in determining product cost for a manufacturer:

✓ **Drawing a bright line between manufacturing costs and non-manufacturing operating costs:** The key difference here is that manufacturing costs are categorized as product costs, whereas non-manufacturing operating costs are categorized as period costs (refer to “Product versus period costs,” earlier in this chapter). In calculating product costs, you include only manufacturing costs and not other costs. Period costs are recorded right away as expenses — either in variable operating expenses or fixed operating expenses (see Figure 11-1). Here are some examples of each type of cost:

- Wages paid to production line workers are a clear-cut example of a manufacturing cost.
- Salaries paid to salespeople are a marketing cost and are not part of product cost; marketing costs are treated as period costs, which means they are recorded immediately to expense of the period.
- Depreciation on production equipment is a manufacturing cost, but depreciation on the warehouse in which products are stored after being manufactured is a period cost.
- Moving the raw materials and partially-completed products through the production process is a manufacturing cost, but transporting the finished products from the warehouse to customers is a period cost.

The accumulation of direct and indirect production costs starts at the beginning of the manufacturing process and stops at the end of the production line. In other words, product cost stops at the end of the production line — every cost up to that point should be included as a manufacturing cost.



If you misclassify some manufacturing costs as operating costs, your product cost calculation will be too low (see the following section, “Calculating product cost”). Also, the Internal Revenue Service may come knocking at your door if it suspects that you deliberately (or even innocently) misclassified manufacturing costs as non-manufacturing costs in order to minimize your taxable income.

REMEMBER



✓ **Allocating indirect costs among different products:** Indirect manufacturing costs must be allocated among the products produced during the period. The full product cost includes both direct and indirect manufacturing costs. Creating a completely satisfactory allocation method is difficult; the process ends up being somewhat arbitrary, but it must be done to determine product cost. Managers should understand how indirect manufacturing costs are allocated among products (and, for that matter, how indirect non-manufacturing costs are allocated among organizational units and profit centers). Managers should also keep in mind that every allocation method is arbitrary and that a different allocation method may be just as convincing. (See the sidebar “Allocating indirect costs is as simple as ABC — not!”)

TECHNICAL STUFF



Allocating indirect costs is as simple as ABC — not!

Accountants for manufacturers have developed many methods and schemes for allocating indirect overhead costs, most of which are based on a common denominator of production activity, such as direct labor hours or machine hours. A different method has received a lot of press recently: *activity-based costing* (ABC).

With the ABC method, you identify each supporting activity in the production process and collect costs into a separate pool for each identified activity. Then you develop a *measure* for each activity — for example, the measure for the engineering department may be hours, and the measure for the maintenance department may be square feet. You use the activity measures as *cost drivers* to allocate costs to products.

The idea is that the engineering department doesn't come cheap; including the cost of their slide rules and pocket protectors, as well as their salaries and benefits, the total cost per hour for those engineers could be \$200 or more. The logic of the ABC cost-allocation method is that the engineering cost per hour should be allocated on the basis of the number of hours (the driver) required by each product. So if Product A needs

200 hours of the engineering department's time and Product B is a simple product that needs only 20 hours of engineering, you allocate ten times as much of the engineering cost to Product A. In similar fashion, suppose the cost of the maintenance department is \$20 per square foot per year. If Product C uses twice as much floor space as Product D, it would be charged with twice as much maintenance cost.

The ABC method has received much praise for being better than traditional allocation methods, especially for management decision making. But keep in mind that this method still requires rather arbitrary definitions of cost drivers, and having too many different cost drivers, each with its own pool of costs, is not too practical.

Cost allocation always involves arbitrary methods. Managers should be aware of which methods are being used and should challenge a method if they think that it's misleading and should be replaced with a better (though still somewhat arbitrary) method. I don't mean to put too fine a point on this, but cost allocation essentially boils down to a “my arbitrary method is better than your arbitrary method” argument.

Calculating product cost

The basic equation for calculating product cost is as follows (using the example of the manufacturer given in Figure 11-1):

$$\frac{\$91,200,000 \text{ total manufacturing costs}}{120,000 \text{ units production output}} = \$760 \text{ product cost per unit}$$



Looks pretty straightforward, doesn't it? Well, the equation itself may be simple, but the accuracy of the results depends directly on the accuracy of your manufacturing cost numbers. The business example we're using in this chapter manufactures just one product. Even so, a single manufacturing process can be fairly complex, with hundreds or thousands of steps and operations. In the real world, where businesses produce multiple products, your accounting systems must be very complex and extraordinarily detailed to keep accurate track of all direct and indirect (allocated) manufacturing costs.



In our example, the business manufactured 120,000 units and sold 110,000 units during the year, and its product cost per unit is \$760. The 110,000 total units sold during the year is multiplied by the \$760 product cost to compute the \$83.6 million cost of goods sold expense, which is deducted against the company's revenue from selling 110,000 units during the year. The company's total manufacturing costs for the year were \$91.2 million, which is \$7.6 million more than the cost of goods sold expense. The remainder of the total annual manufacturing costs is recorded as an increase in the company's inventory asset account, to recognize that 10,000 units manufactured this year are awaiting sale in the future. In Figure 11-1, note that the \$760 product cost per unit is applied both to the 110,000 units sold and to the 10,000 units added to inventory.

Note: The product cost per unit for our example business is determined for the entire year. In actual practice, manufacturers calculate their product costs monthly or quarterly. The computation process is the same, but the frequency of doing the computation varies from business to business. Product costs likely will vary each successive period the costs are determined. Because the product costs vary from period to period, the business must choose which cost of goods sold and inventory cost method to use. (If product cost happened to remain absolutely flat and constant period to period, the different methods would yield the same results.) Chapter 7 explains the alternative accounting methods for determining cost of goods sold expense and inventory cost value.

Examining fixed manufacturing costs and production capacity

Product cost consists of two very distinct components: *variable* manufacturing costs and *fixed* manufacturing costs. In Figure 11-1, note that the company's variable manufacturing costs are \$410 per unit, and its fixed manufacturing costs are \$350 per unit. Now, what if the business had manufactured ten more units? Its total variable manufacturing costs would have been \$4,100 higher. The actual number of units produced drives variable costs, so even one more unit would have caused the variable costs to increase. But the company's total fixed costs would have been the same if it had produced ten more units, or 10,000 more units for that matter. Variable manufacturing costs are bought on a per-unit basis, as it were, whereas fixed manufacturing costs are bought in bulk for the whole period.

Fixed manufacturing costs are needed to provide *production capacity* — the people and physical resources needed to manufacture products — for the period. After the business has the production plant and people in place for the year, its fixed manufacturing costs cannot be easily scaled down. The business is stuck with these costs over the short run. It has to make the best use it can from its production capacity.



Production capacity is a critical concept for business managers to stay focused on. You need to plan your production capacity well ahead of time because you need plenty of lead-time to assemble the right people, equipment, land, and buildings. When you have the necessary production capacity in place, you want to make sure that you're making optimal use of that capacity. The fixed costs of production capacity remain the same even as production output increases or decreases, so you may as well make optimal use of the capacity provided by those fixed costs. For example, you're recording the same depreciation amount on your machinery regardless of how you actually use those machines, so you should be sure to optimize the use of those machines (within limits, of course — overworking the machines to the point where they break down won't do you much good).

The burden rate

The fixed cost component of product cost is called the *burden rate*. In our manufacturing example, the burden rate is computed as follows (see Figure 11-1 for data):

$$\begin{array}{r} \$42,000,000 \text{ fixed manufacturing costs for period} \div \\ 120,000 \text{ units production output for period} = \\ \$350 \text{ burden rate} \end{array}$$

Note that the burden rate depends on the number divided into total fixed manufacturing costs for the period — that is, the production output for the period.



Now, here's a very important twist on my example: Suppose the company had manufactured only 110,000 units during the period — equal exactly to the quantity sold during the year. Its variable manufacturing cost per unit would have been the same, or \$410 per unit. But its burden rate would have been \$381.82 per unit (computed by dividing the \$42 million total fixed manufacturing costs by the 110,000 units production output). Each unit sold, therefore, would have cost \$31.82 more simply because the company produced fewer units. (The burden rate is \$381.82 at the 110,000 output level but only \$350 at the 120,000 output level.)

If only 110,000 units were produced, the company's product cost would have been \$791.82 (\$410 variable costs plus the \$381.82 burden rate). The company's cost of goods sold, therefore, would have been \$3.5 million higher for the year (\$31.82 higher product cost \times 110,000 units sold). This rather significant increase in its cost of goods sold expense is caused by the company producing fewer units, even though it produced all the units that it needed for sales during the year. The same total amount of fixed manufacturing costs is spread over fewer units of production output.

Idle capacity

The production capacity of the business example in Figure 11-1 is 150,000 units for the year. However, this business produced only 120,000 units during the year, which is 30,000 units fewer than it could have. In other words, it operated at 80 percent of production capacity, which is 20 percent *idle capacity*:

$$120,000 \text{ units output} \div 150,000 \text{ units capacity} = \\ 80\% \text{ utilization, or } 20\% \text{ idle capacity}$$

This rate of idle capacity isn't unusual — the average U.S. manufacturing plant normally operates at 80 to 85 percent of its production capacity.

The effects of increasing inventory

Looking back at the numbers shown in Figure 11-1, the company's cost of goods sold benefited from the fact that it produced 10,000 more units than it sold during the year. These 10,000 units absorbed \$3.5 million of its total fixed manufacturing costs for the year, and until the units are sold this \$3.5 million stays in the inventory asset account (along with the variable manufacturing costs, of course). It's entirely possible that the higher production level was justified — to have more units on hand for sales growth next year. But production output can get out of hand, as I discuss in the following section, "Puffing Profit by Excessive Production."



Managers (and investors as well) should understand the inventory increase effects caused by manufacturing more units than are sold during the year. In the example shown in Figure 11-1, the cost of goods sold expense escaped \$3.5 million of fixed manufacturing costs because the company produced 10,000 more units than it sold during the year, thus pushing down the burden rate. The company's cost of goods sold expense would have been \$3.5 million higher if it had produced just the number of units it sold during the year. The lower output level would have increased cost of goods sold expense and would have caused a \$3.5 million drop in gross margin and earnings before income tax. Indeed, earnings before income tax would have been 27 percent lower ($\$3.5 \text{ million} \div \$13.2 \text{ million} = 27 \text{ percent decrease}$).



The actual costs/actual output method and when not to use it

The product cost calculation for the business example shown in Figure 11-1 is based on the *actual cost/actual output method*, in which you take your actual costs — which may have been higher or lower than the budgeted costs for the year — and divide by the actual output for the year.

The actual costs/actual output method is appropriate in most situations. However, this method is not appropriate and would have to be modified in two extreme situations:

- ✓ **Manufacturing costs are grossly excessive or wasteful due to inefficient production operations:** For example, suppose that the business represented in Figure 11-1 had to throw away \$1.2 million of raw materials during the year. The \$1.2 million should be removed from the calculation of the raw material cost per unit. Instead, you treat it as a period cost — meaning that you take it directly into expense. Then the cost of goods

sold expense would be based on \$750 per unit instead of \$760, which lowers this expense by \$1.1 million (based on the 110,000 units sold). But you still have to record the \$1.2 million expense for wasted raw materials, so EBIT would be \$100,000 lower.

- ✓ **Production output is significantly less than normal capacity utilization:** Suppose that the Figure 11-1 business produced only 75,000 units during the year but still sold 110,000 units because it was working off a large inventory carryover from the year before. Then its production output would be 50 percent instead of 80 percent of capacity. In a sense, the business wasted half of its production capacity, and you can argue that half of its fixed manufacturing costs should be charged directly to expense on the income statement and not included in the calculation of product cost.

Puffing Profit by Excessive Production



Whenever production output is higher than sales volume, be on guard. Excessive production can puff up the profit figure. How? Until a product is sold, the product cost goes in the inventory asset account rather than the cost of goods sold expense account, meaning that the product cost is counted as a *positive* number (an asset) rather than a *negative* number (an expense). Fixed manufacturing overhead cost is included in product cost, which means that this cost component goes into inventory and is held there until the products are sold later. In short, when you overproduce, more of your total of fixed manufacturing costs for the period is moved to the inventory asset account and less is moved into cost of goods sold expense for the year.

You need to judge whether an inventory increase is justified. Be aware that an unjustified increase may be evidence of profit manipulation or just good old-fashioned management bungling. Either way, the day of reckoning will come when the products are sold and the cost of inventory becomes cost of goods sold expense — at which point the cost impacts the bottom line.

Shifting fixed manufacturing costs to the future

The business represented in Figure 11-1 manufactured 10,000 more units than it sold during the year. With variable manufacturing costs at \$410 per unit, the business expended \$4.1 million more in variable manufacturing costs than it would have if it had produced only the 110,000 units needed for its sales volume. In other words, if the business had produced 10,000 fewer units, its variable manufacturing costs would have been \$4.1 million less — that's the nature of variable costs. In contrast, if the company had manufactured 10,000 fewer units, its *fixed* manufacturing costs would not have been any less — that's the nature of fixed costs.

Of its \$42 million total fixed manufacturing costs for the year, only \$38.5 million ended up in the cost of goods sold expense for the year ($\$350 \text{ burden rate} \times 110,000 \text{ units sold}$). The other \$3.5 million ended up in the inventory asset account ($\$350 \text{ burden rate} \times 10,000 \text{ units inventory increase}$). The \$3.5 million of fixed manufacturing costs that are absorbed by inventory is shifted to the future. This amount will not be expensed (charged to cost of goods sold expense) until the products are sold sometime in the future.

Shifting part of the fixed manufacturing cost for the year to the future may seem to be accounting slight of hand. It has been argued that the entire amount of fixed manufacturing costs should be expensed in the year that

these costs are recorded. (Only variable manufacturing costs would be included in product cost for units going into the increase in inventory.) Generally accepted accounting principles require that *full* product cost (variable plus fixed manufacturing costs) be used for recording an increase in inventory. However, as the example in Figure 11-1 shows, producing more than you sell does boost profit.

Let me be very clear here: I'm not suggesting any hanky-panky in the example shown in Figure 11-1. Producing 10,000 more units than sales volume during the year looks — on the face of it — to be reasonable and not out of the ordinary. Yet at the same time, it is naïve to ignore that the business did help its pretax profit to the amount of \$3.5 million by producing 10,000 more units than it sold. If the business had produced only 110,000 units, equal to its sales volume for the year, all its fixed manufacturing costs for the year would have gone into cost of goods sold expense. The expense would have been \$3.5 million higher, and EBIT would have been that much lower.

Cranking up production output

Now let's consider a more suspicious example. Suppose that the business manufactured 150,000 units during the year and increased its inventory by 40,000 units. It may be a legitimate move if the business is anticipating a big jump in sales next year. On the other hand, an inventory increase of 40,000 units in a year in which only 110,000 units were sold may be the result of a serious overproduction mistake, and the larger inventory may not be needed next year. In any case, Figure 11-2 shows what happens to production costs and — more importantly — what happens to the profit lines at the higher production output level.

The additional 30,000 units (over and above the 120,000 units manufactured by the business in the original example) cost \$410 per unit. (The precise cost may be a little higher than \$410 per unit because as you start crowding production capacity, some variable costs per unit may increase a little.) The business would need \$12.3 million more for the additional 30,000 units of production output:

$$\begin{aligned} & \$410 \text{ variable manufacturing cost per unit} \times 30,000 \\ & \text{additional units produced} = \$12,300,000 \text{ additional} \\ & \text{variable manufacturing costs invested in inventory} \end{aligned}$$

Again, its fixed manufacturing costs would not have increased, given the nature of fixed costs. Fixed costs stay put until capacity is increased. Sales volume, in this scenario, also remains the same.

Income Statement for Year		
Sales volume	110,000 units	
	Per Unit	Totals
Sales revenue	\$1,400	\$154,000,000
Cost of goods sold expense	(690)	(75,900,000)
Gross margin	\$710	\$78,100,000
Variable operating expenses	(300)	(33,000,000)
Margin	\$410	\$45,100,000
Fixed operating expenses	(195)	(21,450,000)
Earnings before interest and income tax (EBIT)	<u>\$215</u>	<u>\$23,650,000</u>
Interest expense		(2,750,000)
Earnings before income tax		\$20,900,000
Income tax expense		(7,106,000)
Net income		<u>\$13,794,000</u>
Manufacturing Costs for Year		
Production capacity	150,000 units	
Actual output	150,000 units	
	Per Unit	Totals
Production Cost Components		
Raw materials	\$215	\$32,250,000
Direct labor	125	18,750,000
Variable manufacturing overhead costs	70	10,500,000
Total variable manufacturing costs	\$410	\$61,500,000
Fixed manufacturing overhead costs	280	42,000,000
Total manufacturing costs	<u>\$690</u>	<u>\$103,500,000</u>
To 40,000 units inventory increase		(27,600,000)
To 110,000 units sold		<u>\$75,900,000</u>

Figure 11-2:
Example in which production output greatly exceeds sales volume for the year, thereby boosting profit for the period.

But check out the business's EBIT in Figure 11-2: \$23.65 million, compared with \$15.95 million in Figure 11-1 — a \$7.7 million higher amount, even though sales volume, sales prices, and operating costs all remain the same. Whoa! What's going on here? The simple answer is that the cost of goods sold expense is \$7.7 million less than before. But how can cost of goods sold expense be less? The business sells 110,000 units in both scenarios. And variable manufacturing costs are \$410 per unit in both cases.

The culprit is the burden rate component of product cost. In the Figure 11-1 example, total fixed manufacturing costs are spread over 120,000 units of output, giving a \$350 burden rate per unit. In the Figure 11-2 example, total fixed manufacturing costs are spread over 150,000 units of output, giving a much lower \$280 burden rate, or \$70 per unit less. The \$70 lower burden rate multiplied by the 110,000 units sold results in a \$7.7 million lower cost of goods sold expense for the period, a higher pretax profit of the same amount, and a much improved bottom-line net income.

Being careful when production output is out of kilter with sales volume



In the example shown in Figure 11-2, the business produced 150,000 units (full capacity); therefore, its inventory asset absorbed \$7.7 million of the company's fixed manufacturing costs for the year, and its cost of goods sold expense for the year escaped this cost. But get this: Its inventory increased 40,000 units, which is quite a large increase compared with the annual sales of 110,000 during the year just ended. Who was responsible for the decision to go full blast and produce up to production capacity? Do the managers really expect sales to jump up enough next year to justify the much larger inventory level? If they prove to be right, they'll look brilliant. But if the output level was a mistake and sales do not go up next year . . . they'll have you-know-what to pay next year, even though profit looks good this year. An experienced business manager knows to be on guard when inventory takes such a big jump.

Summing up, the cost of goods sold expense of a manufacturer, and thus its operating profit, is sensitive to a difference between its sales volume and production output during the year. Manufacturing businesses do not generally discuss or explain in their external financial reports to creditors and owners why production output is different than sales volume for the year. Financial report readers are pretty much on their own in interpreting the reasons for and the effects of under- or over-producing products relative to actual sales volume for the year. All I can tell you is to keep alert and keep in mind the profit impact caused by a major disparity between a manufacturer's production output and sale levels for the year.

Part IV

Preparing and Using Financial Reports

The 5th Wave

By Rich Tennant



“Cooked books? Let me just say you could serve this profit and loss statement with a fruity Zinfandel and not be out of place.”

In this part . . .

Financial reports are like newspaper articles. A lot of activity goes on behind the scenes that you may not be aware of. In reading a financial report, you see only the finished product. Chapter 12 gives the inside story of how financial reports are put together.

Outside investors in a business — the owners who are not on the inside managing the business — depend on its financial reports as their main source of information. Chapter 13 explains financial statement ratios that investors use for interpreting profit performance and financial condition. Serious investors must know these ratios.

The financial report is the end of the line for the outside investors and lenders of a business. They can't call the business and ask for more information. But the financial statements are just the starting point for the managers of the business. Chapter 14 explains the more detailed and highly confidential accounting information they need for identifying problems and opportunities.

Chapter 15 explains the reasons for audits of financial reports by independent CPAs. Investors and lenders definitely should read the auditor's report, which is explained in this chapter. The chapter also discusses the ugly topic of accounting fraud. Unfortunately, some businesses resort to accounting fraud, which is not only unethical but illegal.

Chapter 12

Getting a Financial Report Ready for Release

In This Chapter

- ▶ Keeping up-to-date on accounting and financial reporting standards
- ▶ Assuring that disclosure is adequate
- ▶ Nudging the numbers to make things look better
- ▶ Comparing private and public businesses
- ▶ Dealing with financial reports' information overload
- ▶ Looking at changes in owners' equity

In Chapters 4, 5, and 6, I explain the three primary financial statements of a business:

- ✓ **Income statement:** Summarizes sales revenue and other income (if any) and expenses and losses (if any) for the period. It ends with the bottom-line profit for the period, which most commonly is called *net income* or *net earnings*. (Inside a business this profit performance statement is commonly called the **Profit & Loss**, or **P&L**, report.)
- ✓ **Balance sheet:** Summarizes financial condition at the end of the period, consisting of amounts for assets, liabilities, and owners' equity at that instant in time. (Its more formal name is the **statement of financial condition**.)
- ✓ **Statement of cash flows:** Reports the cash increase or decrease during the period from profit-making activities (revenue and expenses) and the reasons this key figure is different than bottom-line net income. It also summarizes other cash flows during the period from investing and financing activities.

These three statements, plus the footnotes to the financials and other content, are packaged into annual financial reports so a business's investors, lenders, and other interested parties can keep tabs on the business's financial health. In this chapter, I shine a light on the preparation process so you can recognize the types of decisions that must be made before a financial report hits the streets.

Recognizing Management's Role

Whether a business is a small private company or a large public corporation, its annual financial report consists of

- ✓ The three basic financial statements: income statement, balance sheet, and statement of cash flows.
- ✓ A statement of changes in owners' equity (if needed). Although it's called a "statement," this item is more properly described as a supplementary schedule. It reports certain information regarding changes in owners' equity accounts during the year that is not included in its three primary financial statements. (See "Statement of Changes in Owners' Equity" later in the chapter.)
- ✓ And more.

In deciding what "more" means, the business's CEO and top lieutenants play an essential role — which they (and outside investors and lenders) should understand. The CEO does certain critical things before a financial report is released to the outside world:

1. **Confers with the company's chief financial officer and controller (chief accountant) to make sure that the latest accounting and financial reporting standards and requirements have been applied in its financial report.** (The president of a smaller private company may have to consult with a CPA on these matters.) In recent years, we've seen a high degree of flux in accounting and financial reporting standards and requirements. The private sector Financial Accounting Standards Board (FASB) and the governmental regulatory agency, the Securities and Exchange Commission (SEC), have been very busy in recent years — to say nothing of the federal Sarbanes-Oxley Act of 2002 and the creation of the Public Company Accounting Oversight Board.



A business and its auditors cannot simply assume that the accounting methods and financial reporting practices that have been used for many years are still correct and adequate. A business *must* check carefully whether it is in full compliance with current accounting standards and financial reporting requirements.

2. **Carefully reviews the disclosures in the financial report.** The CEO and financial officers of the business must make sure that the *disclosures* — all information other than the financial statements — are adequate according to financial reporting standards, and that all the disclosure elements are truthful but, at the same time, not damaging to the business.



This disclosure review can be compared with the notion of *due diligence*, which is done to make certain that all relevant information is collected, that the information is accurate and reliable, and that all relevant requirements and regulations are being complied with. This step is especially important for public corporations whose securities (stock shares and debt instruments) are traded on securities exchanges. Public businesses fall under the jurisdiction of federal securities laws, which require very technical and detailed filings with the SEC.

- 3. Considers whether the financial statement numbers need *touching up*.** The idea here is to smooth the jagged edges off the company's year-to-year profit gyrations or to improve the business's short-term solvency picture. Although this can be described as putting your thumb on the scale, you can also argue that sometimes the scale is a little out of balance to begin with and the CEO should approve adjusting the financial statements in order to make them jibe better with the normal circumstances of the business.



When I discuss the third step later in this chapter, I'm venturing into a gray area that accountants don't much like to talk about. Some topics are, shall I say, rather delicate. The manager has to strike a balance between the interests of the business on the one hand and the interests of the owners (investors) and creditors of the business on the other. The best analogy I can think of is the advertising done by a business. Advertising should be truthful, but, as I'm sure you know, businesses have a lot of leeway regarding how to advertise their products and have been known to engage in hyperbole. Managers exercise the same freedoms in putting together their financial reports. Financial reports may have some hype, and managers may put as much positive spin on bad news as possible without making deceitful and deliberately misleading comments.

Keeping in Mind the Purpose of Financial Reporting



Business managers, creditors, and investors read financial reports because these reports provide information regarding how the business is doing and where it stands financially. Indeed, these accounting reports are the only source of this information! The top-level managers of a business, in reviewing the annual financial report before releasing it outside the business, should keep in mind that a financial report is designed to answer certain basic financial questions:

- ✓ Is the business making a profit or suffering a loss, and how much?
- ✓ How do assets stack up against liabilities?
- ✓ Where did the business get its capital, and is it making good use of the money?

- ✔ What is the cash flow from the profit or loss for the period?
- ✔ Did the business reinvest all its profit or distribute some of the profit to owners?
- ✔ Does the business have enough capital for future growth?

People read a financial report like a road map — to point the way and check how the trip is going. Managing and putting money in a business is a financial journey. A manager is like the driver and must pay attention to all the road signs; investors and lenders are like the passengers who watch the same road signs. Some of the most important road signs are the ratios between sales revenue and expenses and their related assets and liabilities in the balance sheet.

In short, the purpose of financial reporting is to deliver important information to the lenders and shareowners of the business that they need and are entitled to receive. Financial reporting is part of the essential contract between a business and its lenders and investors. This contract can be stated in a few words:

Give us your money, and we'll give you the information you need to know regarding how we're doing with your money.

Financial reporting is governed by statutory and common law, and it should be done according to ethical standards. Unfortunately, financial reporting sometimes falls short of both legal and ethical standards.



Businesses assume that the readers of the financial statements and other information in their financial reports are fairly knowledgeable about business and finance in general, and understand basic accounting terminology and measurement methods in particular. Financial reporting standards and practices, in other words, take a lot for granted about readers of financial reports. Don't expect to find friendly hand holding and helpful explanations in financial reports. I don't mean to put you off, but reading financial reports is not for sissies. You need to sit down with a cup of coffee and be ready for serious concentration.

Staying on Top of Accounting and Financial Reporting Standards



Standards and requirements for accounting and financial reporting don't stand still. For many years, changes in accounting and financial reporting standards moved like glaciers — slowly and not too far. But, just like the climate has warmed, the activity of the accounting and financial reporting authorities has warmed up. In fact, it's hard to keep up with the changes.

Without a doubt, the rash of accounting and financial reporting scandals over the last two decades or so was one major reason for the step-up in activity by the standard setters. The Enron accounting fraud not only brought down a major international CPA firm (Arthur Andersen) but also led to passage of the Sarbanes-Oxley Act of 2002 and its demanding requirements on public companies regarding establishing and reporting on internal controls to prevent financial reporting fraud.

The other major reason for the heightened pace of activity by the standard setters is, in my opinion, the increasing complexity of doing business. When you look at how business is being conducted these days, you find more and more complexity — for example, the use of financial derivative contracts and instruments. The legal exposure of businesses has expanded, especially in respect to environmental laws and regulations. There is a move toward the internationalization of accounting and financial reporting standards, as I discuss in Chapter 2.



In my view, the standard setters should be given a lot of credit for their attempts to deal with the problems that have emerged in recent decades and for trying to prevent repetition of the problems. But the price of doing so has been a rather steep increase in the range and rapidity of changes in accounting and financial reporting standards and requirements. Top-level managers of businesses have to make sure that the top-level financial and accounting officers of the business are keeping up with these changes and make sure that their financial reports follow all current rules and regulations. Managers lean heavily on their chief financial officers and controllers for keeping in full compliance with accounting and financial reporting standards.

Making Sure Disclosure Is Adequate

The financial statements are the backbone of a financial report. In fact, a financial report is not deserving of the name if the three primary financial statements are not included. But a financial report is much more than just the financial statements; a financial report needs *disclosures*. Of course, the financial statements themselves provide disclosure of important financial information about the business. The term *disclosures*, however, usually refers to additional information provided in a financial report.

The CEO of a public corporation, the president of a private corporation, or the managing partner of a partnership has the primary responsibility to make sure that the financial statements have been prepared according to U.S. generally accepted accounting principles (GAAP) — or to international accounting standards, as the case may be — and that the financial report provides adequate disclosure. He or she works with the chief financial officer and controller of the business to make sure that the financial report meets the standard of adequate disclosure. (Many smaller businesses hire an independent CPA to advise them on their financial reports.)

For a quick survey of disclosures in financial reports, the following distinctions are helpful:

- ✔ **Footnotes** provide additional information about the basic figures included in the financial statements. Virtually all financial statements need footnotes to provide additional information for several of the account balances.
- ✔ **Supplementary financial schedules and tables** to the financial statements provide more details than can be included in the body of financial statements.
- ✔ A wide variety of **other information** is presented, some of which is required if the business is a public corporation subject to federal regulations regarding financial reporting to its stockholders. Other information is voluntary and not strictly required legally or according to GAAP.

Footnotes: Nettlesome but needed

Footnotes appear at the end of the primary financial statements. Within the financial statements, you see references to particular footnotes. And at the bottom of each financial statement, you find the following sentence (or words to this effect): “The footnotes are integral to the financial statements.” You should read all footnotes for a full understanding of the financial statements, although I should mention that some footnotes are dense and technical. For example, read the footnote that explains how a public corporation put the value on its management stock options in order to record the expense for this component of management compensation. Then take two aspirin to get rid of your headache.

Footnotes come in two types:

- ✔ One or more footnotes are included to identify the **major accounting policies and methods** that the business uses. (Chapter 7 explains that a business must choose among alternative accounting methods for recording revenue and expenses, and for their corresponding assets and liabilities.) The business must reveal which accounting methods it uses for booking its revenue and expenses. In particular, the business must identify its cost of goods sold expense (and inventory) method and its depreciation methods. Some businesses have unusual problems regarding the timing for recording sales revenue, and a footnote should clarify their revenue recognition method. Other accounting methods that have a material impact on the financial statements are disclosed in footnotes as well.
- ✔ Other footnotes provide **additional information and details** for many assets and liabilities. For example, during the asbestos lawsuits that went on for many years, the businesses that manufactured and sold these products included long footnotes describing the lawsuits. Details about stock option plans for executives are the main type of footnote to the capital stock account in the owners’ equity section of the balance sheet.

Some footnotes are always required; a financial report would be naked without them. Deciding whether a footnote is needed (after you get beyond the obvious ones disclosing the business's accounting methods) and how to write the footnote is largely a matter of judgment and opinion, although certain standards apply:

- ✓ The Financial Accounting Standards Board (FASB) and its predecessors have laid down many disclosure standards for businesses reporting under U.S. generally accepted accounting principles.
- ✓ The SEC mandates disclosure of a broad range of information for publicly owned corporations.
- ✓ International businesses abide by disclosure standards adopted by the International Accounting Standards Board (IASB).

All this is quite a smorgasbord of disclosure requirements, to say the least.

One problem that most investors face when reading footnotes — and, for that matter, many managers who should understand their own footnotes but find them a little dense — is that footnotes often deal with complex issues (such as lawsuits) and rather technical accounting matters. Let me offer you one footnote that highlights the latter point. For your reading pleasure, a footnote from the 2003 annual 10-K report of Caterpillar, Inc. filed with the SEC. (Just try to make sense of it — I dare you.)

D. Inventories: *Inventories are stated at the lower of cost or market. Cost is principally determined using the last-in, first-out (LIFO) method. The value of inventories on the LIFO basis represented about 75% of total inventories at December 31, 2006, and about 80% of total inventories at December 2005, and 2004.*

If the FIFO (first-in, first out) method had been in use, inventories would have been \$2,403 million, \$2,345 million and \$2,124 million higher than reported at December 31, 2006, 2005, and 2004, respectively.

Yes, these dollar amounts are in *millions* of dollars. But what does this mean? Caterpillar's inventory cost value for its inventories at the end of 2006 would have been \$2.4 billion higher if the FIFO accounting method had been used. In other words, this particular asset would have been reported at a 38 percent higher value than the \$6.4 billion reported in its balance sheet at year-end 2006. Of course, you have to have some idea of the difference between the two accounting methods — LIFO and FIFO — to make sense of this note (see Chapter 7).



You may wonder how different the company's annual profits would have been if an alternative accounting method had been in use. A business's managers can ask its accounting department to do this analysis. But, as an outside investor, you would have to compute these amounts yourself (assuming you had all the

necessary information). Businesses disclose which accounting methods they use, but they do not disclose how different annual profits would have been if an alternative method had been used.

Other disclosures in financial reports

The following discussion includes a fairly comprehensive list of the various types of disclosures (other than footnotes) found in annual financial reports of *publicly owned* businesses. A few caveats are in order. First, not every public corporation includes every one of the following items, although the disclosures are fairly common. Second, the level of disclosure by private businesses — after you get beyond the financial statements and footnotes — is generally much less than in public corporations. Third, tracking the actual disclosure practices of private businesses is difficult because their annual financial reports are circulated only to their owners and lenders. (A private business keeps its financial report as private as possible, in other words.) A private business may include any or all of the following disclosures, but by and large it is not required to do so (and, in my experience, very few do).

In addition to the three financial statements and footnotes to the financials, public corporations typically include the following disclosures in their annual financial reports to their stockholders:

- ✔ **Cover (or transmittal) letter:** A letter from the chief executive of the business to the stockholders, which usually takes credit for good news and blames bad news on big government, unfavorable world political developments, a poor economy, or some other thing beyond management's control. (See the sidebar "Warren Buffett's annual letter to Berkshire Hathaway shareholders" for a refreshing alternative.)

Warren Buffett's annual letter to Berkshire Hathaway shareholders

I'd like to call your attention to one notable exception to the generally self-serving and slanted letter from a business's chief executive officer to its stockholders, which you find in most annual financial reports. Warren Buffett is the Chairman of the Board of Berkshire Hathaway, Inc. He has become very well known and is called the "Oracle of Omaha." Mr. Buffett's letters are the epitome of telling it like

it is; they are very frank, sometimes with brutal honesty, and quite humorous in places. You can go the Web site of the company (www.berkshirehathaway.com) and download his most recent letter (and earlier ones if you like). You'll learn a lot about his investing philosophy, and the letters are a delight to read even though they're relatively long (20+ pages usually).

- ✔ **Management's report on internal control over financial reporting:** An assertion by the chief executive officer and chief financial officer regarding their satisfaction with the effectiveness of the internal controls of the business, which are designed to ensure the reliability of its financial reports (and to prevent financial and accounting fraud).
- ✔ **Highlights table:** A table that presents key figures from the financial statements, such as sales revenue, total assets, profit, total debt, owners' equity, number of employees, and number of units sold (such as the number of vehicles sold by an automobile manufacturer, or the number of "revenue seat miles" flown by an airline, meaning one airplane seat occupied by a paying customer for one mile). The idea is to give the stockholder a financial thumbnail sketch of the business.
- ✔ **Management discussion and analysis (MD&A):** Deals with the major developments and changes during the year that affected the financial performance and situation of the business. The SEC requires this disclosure to be included in the annual financial reports of publicly owned corporations.
- ✔ **Segment information:** A report of the sales revenue and operating profits (before interest and income tax, and perhaps before certain costs that cannot be allocated among different segments) for the major divisions of the organization, or for its different markets (international versus domestic, for example).
- ✔ **Historical summaries:** A financial history that extends back beyond the years (usually three) included in the primary financial statements.
- ✔ **Graphics:** Bar charts, trend charts, and pie charts representing financial conditions; photos of key people and products.
- ✔ **Promotional material:** Information about the company, its products, its employees, and its managers, often stressing an overarching theme for the year. Most companies use their annual financial report as an advertising opportunity.
- ✔ **Profiles:** Information about members of top management and the board of directors. Of course, everyone appears to be well qualified for his or her position. Negative information (such as prior brushes with the law) is not reported.
- ✔ **Quarterly summaries of profit performance and stock share prices:** Shows financial performance for all four quarters in the year and stock price ranges for each quarter (required by the SEC).
- ✔ **Management's responsibility statement:** A short statement indicating that management has primary responsibility for the accounting methods used to prepare the financial statements, for writing the footnotes to the statements, and for providing the other disclosures in the financial report. Usually, this statement appears near the independent CPA auditor's report.

- ✔ **Independent auditor's report:** The report from the CPA firm that performed the audit, expressing an opinion on the fairness of the financial statements and accompanying disclosures. Chapter 15 discusses the nature of audits by CPAs and the audit reports that they present to the board of directors of the corporation for inclusion in the annual financial report. Public corporations are required to have audits; private businesses may or may not have their annual financial reports audited.
- ✔ **Company contact information:** Information on how to contact the company, the Web site address of the company, how to get copies of the reports filed with the SEC, the stock transfer agent and registrar of the company, and other information.
- ✔ **No humor allowed:** Finally, I should mention that annual financial reports have virtually no humor — no cartoons, no one-liners, and no jokes. (Well, the CEO's letter to shareowners may have some humorous comments, even when the CEO doesn't mean to be funny.) I mention this point to emphasize that financial reports are written in a somber and serious vein. Many times in reading an annual financial report I have the reaction that the company should lighten up a little. The tone of most annual financial reports is that the fate of the Western world depends on the financial performance of the company. Gimme a break!

Managers of public corporations rely on lawyers, CPA auditors, and their financial and accounting officers to make sure that everything that should be disclosed in the business's annual financial reports is included, and that the exact wording of the disclosures is not misleading, inaccurate, or incomplete. This is a tall order. The field of financial reporting disclosure changes constantly.



Both federal and state laws, as well as authoritative accounting standards, have to be observed in financial report disclosures. Inadequate disclosure is just as serious as using wrong accounting methods for measuring profit and for determining values for assets, liabilities, and owners' equity. A financial report can be misleading because of improper accounting methods or because of inadequate or misleading disclosure. Both types of deficiencies can lead to nasty lawsuits against the business and its managers.

Putting a Spin on the Numbers (But Not Cooking the Books)

This section discusses two accounting tricks that involve manipulating, or “massaging,” the accounting numbers. I don't endorse either technique, but you should be aware of both. In some situations, the financial statement numbers don't come out exactly the way the business wants. With the connivance of top management, accountants can use certain tricks of the trade — some

would say sleight of hand, or shenanigans — to move the numbers closer to what the business prefers. One trick improves the appearance of the *short-term solvency* of the business and the cash balance reported in the balance sheet at the end of the year. The other device shifts some profit from one year to the next to report a smoother trend of net income from year to year.



I don't mean to suggest that all businesses engage in these accounting machinations — but many do. The extent of use of these unholy schemes is hard to pin down because no business would openly admit to using them. The evidence is fairly convincing, however, that many businesses massage their numbers to some degree. I'm sure you've heard the term *loopholes* applied to income tax. Well, some loopholes exist in financial statement accounting as well.

Window dressing for fluffing up the cash balance

Suppose you manage a business and your controller has just submitted for your review the *preliminary*, or first draft, of the year-end balance sheet. (Chapter 5 explains the balance sheet, and Figure 5-2 shows a complete balance sheet for a business.) Figure 12-1 shows the current assets and current liabilities sections of the balance sheet draft.

Wait a minute: a zero cash balance? How can that be? Maybe your business has been having some cash flow problems and you've intended to increase your short-term borrowing and speed up collection of accounts receivable to help the cash balance. Folks generally don't like to see a zero cash balance — it makes them kind of nervous, to put it mildly, no matter how you try to cushion it. So what do you do to avoid setting off alarm bells?

Figure 12-1:

Current assets and	Cash	\$0	Accounts payable	\$235,000
current liabilities of	Accounts receivable	\$486,000	Accrued expenses payable	\$187,000
a business, before	Inventory	\$844,000	Income tax payable	\$58,000
window dressing.	Prepaid expenses	\$72,000	Short-term notes payable	\$200,000
	Current assets	\$1,402,000	Current liabilities	\$680,000

Your controller is probably aware of a technique called *window dressing*, a very simple method for making the cash balance look better. Suppose your fiscal year-end is October 31. Your controller takes the cash collections from customers paying their accounts receivable that are actually received on November 1, 2, and 3, and records them as if these cash collections had been received on October 31. After all, the argument can be made that the customers' checks were in the mail — that money is yours, as far as the customers are concerned.

Window dressing reduces the amount in accounts receivable and increases the amount in cash by the same amount — it has absolutely no effect on your profit figure for the period. It just makes your cash balance look a touch better. Window dressing can also be used to improve other accounts' balances, which I don't go into here. All of these techniques involve holding the books open — to record certain events that take place after the end of the fiscal year (the ending balance sheet date) to make things look better than they actually were at the close of business on the last day of the year.

Sounds like everybody wins, doesn't it? You look like you've done a better job as manager, and your lenders and investors don't panic. Right? Wrong! Window dressing is deceptive to your creditors and investors, who have every right to expect that the end of your fiscal year as stated on your financial reports is truly the end of your fiscal year. I should mention, however, that when I was in auditing I encountered situations in which a major lender of the business was fully aware that it had engaged in window dressing. The lender did not object because it wanted the business to fluff the pillows to make its balance sheet look better. The loan officer wanted to make the loan to the business look better. Essentially, the lender was complicit in the accounting manipulation.



Window dressing could be a dangerous game to play. Window dressing could be the first step on a slippery slope. A little window dressing today, and tomorrow, who knows — maybe giving the numbers a nudge now will lead to more serious accounting deceptions, such as profit smoothing techniques (discussed next), or even out-and-out accounting fraud. Moreover, when a business commits some accounting hanky-panky, should the chief executive of the business brief its directors on the accounting manipulation? Things get messy, to say the least!

Sanding the rough edges off profit

You should not be surprised when I tell you that business managers are under tremendous pressure to make profit every year and to keep profit on the up escalator year after year. Managers strive to make their numbers and to hit the milestone markers set for the business. Reporting a loss for the

year, or even a dip below the profit trend line, is a red flag that investors view with alarm. Everyone likes to see a steady upward trend line for profit; no one likes to see a profit curve that looks like a roller coaster. Most investors want a smooth journey and don't like putting on their investment life preservers.

Managers can do certain things to deflate or inflate profit (net income) recorded in the year, which are referred to as *profit smoothing* techniques. Other names for these techniques are *income smoothing* and *earnings management*. Profit smoothing is like a white lie told for the good of the business and perhaps for the good of managers as well. Managers know that there is always some noise in the accounting system. Profit smoothing muffles the noise.



The general view in the financial community is that profit smoothing is not nearly as serious as *cooking the books*, or *juggling the books*. These terms refer to deliberate, fraudulent accounting practices such as recording sales revenue that has not happened or not recording expenses that have happened. Nevertheless, profit smoothing is still very serious and if carried too far could be interpreted as accounting fraud. Managers can and do go to jail for fraudulent financial statements. I discuss cooking the books in Chapter 15.

The pressure on public companies

Managers of publicly owned corporations whose stock shares are actively traded are under intense pressure to keep profits steadily rising. Security analysts who follow a particular company make profit forecasts for the business, and their buy-hold-sell recommendations are based largely on these earnings forecasts. If a business fails to meet its own profit forecast or falls short of stock analysts' forecasts, the market price of its stock shares usually takes a hit. Stock option and bonus incentive compensation plans are also strong motivations for achieving the profit goals set for the business.



The evidence is fairly strong that publicly owned businesses engage in some degree of profit smoothing. Frankly, it's much harder to know whether private businesses do so. Private businesses don't face the public scrutiny and expectations that public corporations do. On the other hand, key managers in a private business may have bonus arrangements that depend on recorded profit. In any case, business investors and managers should know about profit smoothing and how it's done.

Compensatory effects

Most profit smoothing involves pushing some amount of revenue and/or expenses into years other than those in which they would normally be recorded. For example, if the president of a business wants to report more profit for the year, he or she can instruct the chief accountant to accelerate the recording of some sales revenue that normally wouldn't be recorded until next year, or to delay the recording of some expenses until next year that normally would be recorded this year.

Chapter 7 explains that managers choose among alternative accounting methods for several important expenses (and for revenue as well). After making these key choices, the managers should let the accountants do their jobs and let the chips fall where they may. If bottom-line profit for the year turns out to be a little short of the forecast or target for the period, so be it. This hands-off approach to profit accounting is the ideal way. However, managers often use a hands-on approach — they intercede (one could say interfere) and override the normal accounting for sales revenue or expenses.



Both managers who do profit smoothing and investors who rely on financial statements in which profit smoothing has been done must understand one thing: These techniques have robbing-Peter-to-pay-Paul effects. Accountants refer to these as *compensatory effects*. The effects next year offset and cancel out the effects this year. Less expense this year is counterbalanced by more expense next year. Sales revenue recorded this year means less sales revenue recorded next year. Of course, the compensatory effects work the other way as well: If a business depresses its current year's recorded profit, its profit next year benefits. In short, a certain amount of profit can be brought forward into the current year or delayed until the following year.

Two profit histories

Figure 12-2 shows, side by side, the annual profit histories of two different businesses over six years. Steady Flow, Inc. shows a nice smooth upward trend of profit. Bumpy Ride, Inc., in contrast, shows a zigzag ride over the six years. Both businesses earned the same total profit for the six years — in this case, \$1,050,449. Their total six-year profit performance is the same, down to the last dollar. Which company would you be more willing to risk your money in? I suspect that you'd prefer Steady Flow, Inc. because of the nice and steady upward slope of its profit history.



I have a secret to share with you: Figure 12-2 is not really for two different companies — actually, the two different profit figures for each year are for the same company. The year-by-year profits shown for Steady Flow, Inc. are the company's *smoothed* profit amounts for each year, and the annual profits for Bumpy Ride, Inc. are the *actual* profits of the same business — the annual profits that were recorded before smoothing techniques were applied.

For the first year in the series, 2004, no profit smoothing occurred. The two profit numbers are the same; there was no need for smoothing. For each of the next five years, the two profit numbers differ. The difference between actual profit and smoothed profit for the year is the amount that revenue and/or expenses had to be manipulated for the year. For example, in 2005 actual profit would have been a little too high, so the company accelerated the recording of some expenses that should not have been recorded until the following year (2006); it booked those expenses in 2005. In contrast, in 2008, actual profit was running below the target net income for the year, so the business put off recording some expenses until 2009 to make 2008's profit look better. Does all this make you a little uncomfortable? It should.

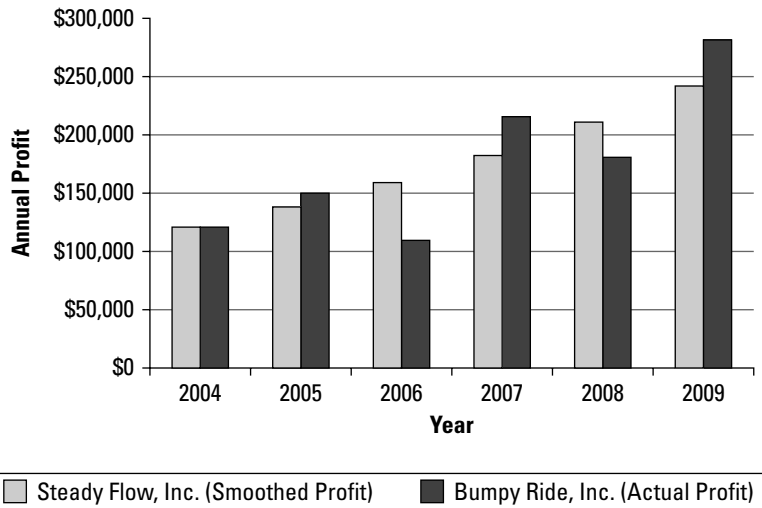


Figure 12-2:
Comparison
of smoothed
and actual
profit
histories.



A business can go only so far in smoothing profit. If a business has a particularly bad year, all the profit-smoothing tricks in the world won't close the gap. And if managers are used to profit smoothing, they may be tempted in this situation to resort to accounting fraud, or cooking the books.

Management discretion in the timing of revenue and expenses

Several smoothing techniques are available for filling the potholes and straightening the curves on the profit highway. Most profit-smoothing techniques require one essential ingredient: management discretion in deciding *when* to record expenses or *when* to record sales.

When I was in public accounting, one of our clients was a contractor that used the *completed contract method* for recording its sales revenue. Not until the job was totally complete did the company book the sales revenue and deduct all costs to determine the gross margin from the job (in other words, from the contract). In most cases, the company had to return a few weeks after a job was finished for final touch-up work or to satisfy customer complaints. In the past, the company waited for this final visit before calling a job complete. But the year I was on the audit, the company was falling short of its profit goals. So the president decided to move up the point at which a job was called complete. The company decided not to wait for the final visit, which rarely involved more than a few minor expenses. Thus more jobs were completed during the year, more sales revenue and higher gross margin were recorded in the year, and the company met its profit goals.

A common technique for profit smoothing is to delay normal maintenance and repairs, which is referred to as *deferred maintenance*. Many routine and recurring maintenance costs required for autos, trucks, machines, equipment, and buildings can be put off, or deferred, until later. These costs are not recorded to expense until the actual maintenance is done, so putting off the work means recording the expense is delayed.

Here are a few other techniques used:

- ✔ A business that spends a fair amount of money for employee training and development may delay these programs until next year so the expense this year is lower.
- ✔ A company can cut back on its current year's outlays for market research and product development.
- ✔ A business can ease up on its rules regarding when slow-paying customers are written off to expense as *bad debts* (uncollectible accounts receivable). The business can, therefore, put off recording some of its bad debts expense until next year.
- ✔ A fixed asset out of active use may have very little or no future value to a business. But instead of writing off the undepreciated cost of the *impaired asset* as a loss this year, the business may delay the write-off until next year.

Keep in mind that most of these costs will be incurred next year, so the effect is to rob Peter (make next year absorb the cost) to pay Paul (let this year escape the cost).

Financial reporting on the Internet

Most public companies put their financial reports on their Web sites. For example, you can go to www.cat.com and navigate to Caterpillar's investors section, where you can locate its SEC filings and its annual report to stockholders. Each company's Web site is a little different, but usually you can figure out fairly easily how to download its annual and quarterly financial reports.

Alternatively, you can go to the EDGAR (Electronic Data Gathering, Analysis, and

Retrieval) database, maintained by the Securities and Exchange Commission (SEC). Finding particular filings with the SEC is relatively easy, but each company makes many filings with the SEC so you have to know which one you want to see. (The annual financial report is form 10-K.) Go to the EDGAR company search site at <http://www.sec.gov/edgar/searchedgar/companysearch.html>.



Clearly, managers have a fair amount of discretion over the timing of some expenses, so certain expenses can be accelerated into this year or deferred to next year in order to make for a smoother year-to-year profit trend. But a business does not divulge in its external financial report the extent to which it has engaged in profit smoothing. Nor does the independent auditor comment on the use of profit-smoothing techniques by the business — unless the auditor thinks that the company has gone too far in massaging the numbers and that its financial statements are downright misleading.

Going Public or Keeping Things Private

Suppose you had the inclination (and the time!) to compare 100 annual financial reports of publicly owned corporations with 100 annual reports of privately owned businesses. You'd see many differences. Public companies are generally much larger (in terms of annual sales and total assets) than private companies, as you would expect. Furthermore, public companies generally are more complex — concerning employee compensation, financing instruments, multinational operations, federal laws that impact big business, legal exposure, and so on.



Private and public businesses are bound by the same accounting rules for measuring profit and for valuing assets, liabilities, and owners' equity, and for disclosures in their financial reports. (To be more precise, private companies are exempt from a couple of accounting rules.) But most of the accounting and financial reporting standards that have been issued over the last two or three decades are directed mainly to public companies; by and large private companies do not have these accounting issues. As I mention in Chapter 2, the accounting profession has taken initiatives with the goal of better recognizing the different needs of private companies and the constituents of financial reporting by private companies. Well, this is the party line. In my view, the main purpose is to lighten the accounting and financial reporting burden on private companies, which generally don't have the time or the accounting expertise to comply with the large number of complex standards on the books.

Reports from publicly owned companies

Around 10,000 corporations are publicly owned, and their stock shares are traded on the New York Stock Exchange, NASDAQ, or other stock markets. Publicly owned companies must file annual financial reports with the SEC — the federal agency that makes and enforces the rules for trading in securities (stocks and bonds). These filings are available to the public on the SEC's EDGAR database (see the sidebar "Financial reporting on the Internet").

The annual financial reports of publicly owned corporations include all or most of the disclosure items I list earlier in the chapter (see the section “Making Sure Disclosure Is Adequate”). As a result, annual reports published by large publicly owned corporations run 30, 40, or 50 pages (or more). The large majority of public companies put their annual reports on their Web sites. Many public companies also present condensed versions of their financial reports — see the section “Recognizing condensed versions” later in this chapter.

Annual reports from public companies generally are very well done — the quality of the editorial work and graphics is excellent; the color scheme, layout, and design have very good eye appeal. But be warned that the volume of detail in their financial reports is overwhelming. (See the next section for advice on dealing with the information overload in annual financial reports.)

While private companies are cut some slack when it comes to reporting certain financial information — such as earnings per share — the requirements for publicly owned businesses are more stringent. Publicly owned businesses live in a fish bowl. When a company goes public with an *IPO* (initial public offering of stock shares), it gives up a lot of the privacy that a closely held business enjoys. A public company is required to have its annual financial report audited by an outside, independent CPA firm. In doing an audit, the CPA passes judgment on the company’s accounting methods and adequacy of disclosure.

Reports from private businesses

Compared with their public brothers and sisters, private businesses generally provide few additional disclosures in their annual financial reports. Their primary financial statements with the accompanying footnotes are pretty much it. Often, their financial reports may be printed on plain paper and stapled together. A privately held company may have very few stockholders, and typically one or more of the stockholders are active managers of the business, who already know a great deal about the business. I suppose that a private company could e-mail its annual financial report to its lenders and shareowners, although I haven’t seen this yet.



Private corporations could provide all the disclosures I mention in this chapter — there’s certainly no law against doing so. But they generally don’t. Investors in private businesses can request confidential reports from managers at the annual stockholders’ meetings (which is not practical for a stockholder in a large public corporation). And major lenders to a private business can demand that certain items of information be disclosed to them as a condition of the loan.

A private business may have its financial statements audited by a CPA firm but generally is not required by law to do so. Frankly, CPA auditors cut private businesses a lot of slack regarding disclosure. I don't entirely disagree with enforcing a lower standard of disclosure for private companies. The stock share market prices of public corporations are extremely important, and full disclosure of information should be made publicly available so that market prices are fairly determined. On the other hand, the ownership shares of privately owned businesses are not traded, so there's no urgent need for a complete package of information.

Dealing with Information Overload

As a general rule, the larger a business, the longer its annual financial report. I've seen annual financial reports of small, privately owned businesses that you could read in 30 minutes to an hour. In contrast, the annual reports of large, publicly owned business corporations are typically 30, 40, or 50 pages (or more). You would need two hours to do a quick read of the entire annual financial report, without trying to digest its details.



If you did try to digest the details of an annual financial report, which is a long, dense document not unlike a lengthy legal contract, you would need many hours (perhaps the whole day) to do so. (Also, to get the complete picture, you should read the company's filings with the SEC in conjunction with its annual financial report. Tack on a few more hours for that!) For one thing, there are many, many numbers in an annual financial report. I've never taken the time to count the number of numbers in an average annual financial report, but I can guarantee there are at least hundreds, and reports for large, diversified, global, conglomerate businesses must have over a thousand.

Browsing based on your interests

How do investors in a business deal with the information overload of annual financial reports? Very, very few persons take the time to plow through every sentence, every word, every detail, and every number on every page — except for those professional accountants, lawyers, and auditors directly involved in the preparation and review of the financial report. It's hard to say how most managers, investors, creditors, and others interested in annual financial reports go about dealing with the massive amount of information — very little research has been done on this subject. But I have some observations to share with you.



An annual financial report is like the Sunday edition of a large city newspaper, such as *The New York Times* or the *Chicago Tribune*. Hardly anyone reads every sentence on every page of these Sunday papers, much less every word in the advertisements — most people pick and choose what they want to read. They browse their way through the paper, stopping to read only the particular articles or topics they're interested in. Some people just skim through the paper. Some glance at the headlines. I think most investors read annual financial reports like they read Sunday newspapers. The complete information is there if you really want to read it, but most readers pick and choose which information they have time to read.

Annual financial reports are designed for *archival purposes*, not for a quick read. Instead of addressing the needs of investors and others who want to know about the profit performance and financial condition of the business — but have only a very limited amount of time available — accountants produce an annual financial report that is a voluminous financial history of the business. Accountants leave it to the users of annual reports to extract the main points. So financial statement readers use relatively few ratios and other tests to get a feel for the financial performance and position of the business. (Chapters 13 and 17 explain how readers of financial reports get a fix on the financial performance and position of a business.)

Recognizing condensed versions



Here's a well-kept secret: Many public businesses and nonprofit organizations don't send a complete annual financial report to their stockholders or members. They know that few persons have the time or the technical background to read thoroughly the full-scale financial statements, footnotes, and other disclosures in their comprehensive financial reports. So, they present relatively brief summaries that are boiled-down versions of their complete financial reports. For example, my retirement fund manager, TIAA-CREF, puts out only financial summaries to its participants and retirees. Also, AARP issues condensed financial reports to its members.

Typically, these summaries — called *condensed financial statements* — do not provide footnotes or the other disclosures that are included in the complete and comprehensive annual financial reports. If you really want to see the official financial report of the organization, you can ask its headquarters to send you a copy (or, for public corporations, you can go to the EDGAR database of the SEC — see the sidebar “Financial reporting on the Internet”).

Using other sources of business information

Keep in mind that annual financial reports are only one of several sources of information to owners, creditors, and others who have a financial interest in the business. Annual financial reports, of course, come out only once a year — usually two months or so after the end of the company’s fiscal (accounting) year. You have to keep abreast of developments during the year by reading financial newspapers or through other means. Also, annual financial reports present the sanitized version of events; they don’t divulge scandals or other negative news about the business.



Not everything you may like to know as an investor is included in the annual financial report. For example, information about salaries and incentive compensation arrangements with the top-level managers of the business are disclosed in the *proxy statement*, not in the annual financial report. A proxy statement is the means by which the corporation solicits the vote of stockholders on issues that require stockholder approval — one of which is compensation packages of top-level managers. Proxy statements are filed with the SEC and are available on its EDGAR database.

Statement of Changes in Owners’ Equity

In many situations, a business prepares a “mini” financial statement in addition to its three primary financial statements (income statement, balance sheet, and statement of cash flows). This additional schedule is called the *statement of changes in owners’ equity*. You find this schedule in almost all public companies, because most have relatively complex ownership structures and changes in their equity accounts during the year. Many smaller private companies, on the other hand, do not need to present this schedule.



Owners’ equity consists of two fundamentally different sources: capital invested in the business by the owners, and profit earned by and retained in the business. The specific accounts maintained by the business for its total owners’ equity depend on the legal organization of the business entity. One of the main types of legal organization of a business is the *corporation*, and its owners are *stockholders*. A corporation issues ownership shares called *capital stock*. The title *statement of changes in stockholders’ equity* is used for corporations. (Chapter 8 explains the corporation and other legal types of business entities.)

Let's consider a situation in which a business does *not* need to report this statement, to make clearer why the statement is needed. Suppose a business corporation has only one class of capital stock (ownership shares); it did not issue any additional capital stock shares during the year; and it did not record any gains or losses directly in its owners' equity during the year (due to *other comprehensive income*, which I explain in a moment). This business does not need a statement of changes in stockholders' equity. In reading the financial report of this business you would see in its statement of cash flows (see Figure 6-1 or 6-2, for example) and its footnotes whether the business raised additional capital from its owners during the year, and how much *cash dividends* (distributions from profit) were paid to the owners during the year. In other words, the statement of cash flows and footnotes report all the activity in the owners' equity accounts during the year. Even so, a business may go ahead and prepare the schedule in order to bring together everything affecting its owner's equity accounts in one place.



In contrast, many larger businesses — especially publicly traded corporations — generally have complex ownership structures consisting of two or more classes of capital stock shares; they usually buy some of their own capital stock shares; and they have one or more technical types of gains or losses during the year. So they prepare a statement of changes in stockholders' equity to collect together in one place all the changes affecting the owners' equity accounts during the year. This particular statement (that focuses narrowly on changes in owners' equity accounts) is where you find certain gains and losses that increase or decrease owners' equity but that are *not* reported in the income statement. This is a rather sneaky way of bypassing the income statement.

Basically, a business has the option to skirt around the income statement and, instead, report certain gains and losses in the statement of changes in owners' equity. In this way, the gains or losses do not affect the bottom-line profit of the business reported in its income statement. You have to read this financial summary of the changes in the owners' equity accounts to find out whether the business had any of these technical gains or losses, and the amounts of the gains or losses.



The special types of gains and losses reported in the statement of stockholders' equity (instead of the income statement) have to do with foreign currency translations, unrealized gains and losses from certain types of securities investments by the business, and changes in liabilities for unfunded pension fund obligations of the business. The term *comprehensive income* is used to describe the normal content of the income statement *plus* the additional layer of these special types of gains and losses. Being so technical in nature, these gains and losses fall into a twilight zone, as it were, in financial reporting. The gains and losses can be tacked on at the bottom of the income statement, or they can be put in the statement of changes in owners' equity — it's up to the business to make the choice. You see it done both ways in financial reports.

The general format of the statement of changes in stockholders' equity includes

- ✓ A column for each class of stock (common stock, preferred stock, and so on)
- ✓ A column for any *treasury stock* (shares of its own capital stock that the business has purchased and not cancelled)
- ✓ A column for retained earnings
- ✓ One or more columns for any other separate components of the business's owners' equity

Each column starts with the beginning balance and then shows the increases or decreases in the account during the year. For example, a comprehensive gain is shown as an increase in retained earnings, and a comprehensive loss as a decrease.

I have to admit that reading a statement of changes in stockholders' equity in a public company's annual financial report can be heavy lifting. The professionals — stock analysts, money and investment managers, and so on — carefully read through and dissect this statement, or at least they should. The average, nonprofessional investor should focus on whether the business had a major increase or decrease in the number of stock shares during the year, whether the business changed its ownership structure by creating or eliminating a class of stock, and what impact stock options awarded to managers of the business may have had.

Chapter 13

How Lenders and Investors Read a Financial Report

In This Chapter

- ▶ Looking after your investments
 - ▶ Using ratios to interpret profit performance
 - ▶ Using ratios to interpret financial condition
 - ▶ Scanning footnotes and sorting out important ones
 - ▶ Paying attention to what the auditor says
-

Some years ago, a private business needed additional capital to continue its growth. Its stockholders could not come up with all the additional capital the business needed. So they decided to solicit several people to invest money in the company, including me. (In Chapter 8, I explain corporations and the stock shares they issue when owners invest capital in the business.) I studied the business's most recent financial report. I had an advantage that you'll have too if you read this chapter: I know how to read a financial report and what to look for.

After studying the financial report, I concluded that the profit prospects of this business looked promising and that I probably would receive reasonable cash dividends on my investment. I also thought the business might be bought out by a bigger business someday, and I would make a capital gain. That proved to be correct: The business was bought out a few years later, and I doubled my money (plus I earned dividends along the way).

Not all investment stories have a happy ending, of course. As you know, stock share market prices go up *and* down. A business may go bankrupt, causing its lenders and shareowners large losses. This chapter isn't about guiding you toward or away from making specific types of investments. My purpose is to explain basic tools lenders and investors use for getting the most information value out of a business's financial reports — to help you become a more intelligent lender and investor.

Note: This chapter focuses on the *external* financial report that a business sends to its lenders and shareowners. External financial reports are designed for the *non-manager* stakeholders in the business. The business's managers should definitely understand how to read and analyze its external financial statements, but managers should do additional financial analysis, which I discuss in Chapter 14. This additional financial analysis by managers uses confidential accounting information that is not circulated outside the business.

Knowing the Rules of the Game

When you invest money in a business venture or lend money to a business, you receive regular financial reports from the business. The basic premise of financial reporting is *accountability* — to inform the sources of a business's ownership and debt capital about the financial performance and condition of the business. Brief financial reports are sent to owners and lenders quarterly (every three months). A full and comprehensive financial report is sent annually. This chapter focuses on the annual financial report.

Public companies make their financial reports available to the public at large; they do not limit distribution only to their present shareowners and lenders. For instance, I don't happen to own any stock shares of Caterpillar. So, how did I get its annual financial report? I simply went to Cat's Web site. In contrast, private companies generally keep their financial reports private — they distribute their financial reports only to their shareowners and lenders. Even if you were a close friend of the president of a private business, I doubt that the president would let you see a copy of its latest financial report. You may as well ask to see the president's latest individual income tax return. (You're not going to see it either.)



There are written rules for financial reports, and there are unwritten rules. The main written rules in the United States are called generally accepted accounting principles (GAAP). The unwritten rules don't have a name. For instance, there is no explicit rule prohibiting the use of swear words and vulgar expressions in financial reports. Yet, quite clearly, there is a strict unwritten rule against improper language in financial reports. There's one unwritten rule in particular that you should understand: A financial report is not a confessional. A business does not have to lay bare all its problems in its financial reports. A business cannot resort to accounting fraud to cover up its problems, of course. But a business does not comment on its difficulties and sensitive issues in reporting its financial affairs to the outside world.

Becoming a More Savvy Investor

An investment opportunity in a private business won't show up on your doorstep every day. However, if you make it known that you have money to invest as an equity shareholder, you may be surprised at how many offers come your way. Alternatively, you can invest in publicly traded *securities*, those stocks and bonds listed every day in *The Wall Street Journal*. Your stockbroker would be delighted to execute a buy order for 100 shares of, say, Caterpillar for you. Keep in mind that your money does not go to Caterpillar; the company is not raising additional money. Your money goes to the seller of the 100 shares. You're investing in the *secondary capital market* — the trading in stocks by buyers and sellers after the shares were originally issued some time ago. In contrast, I invested in the *primary capital market*, which means that my money went directly to the business.

You may choose not to manage your securities investments yourself. Instead, you can put your money in one or more of the thousands of mutual funds available today, or in an exchange-traded fund (a recent type of investment vehicle). You'll have to read other books to gain an understanding of the choices you have for investing your money and managing your investments. Be very careful about books that promise spectacular investment results with no risk and little effort. One book that is practical, well written, and levelheaded is *Investing For Dummies*, 4th Edition, by Eric Tyson (Wiley).



Investors in a private business have just one main source of financial information about the business they've put their hard-earned money in: its financial reports. Of course, investors should carefully read these reports. By "carefully," I mean they should look for the vital signs of progress and problems. The financial statement ratios that I explain later in this chapter point the way — like signposts on the financial information highway.

Investors in securities of public businesses have many sources of information at their disposal. Of course, they can read the financial reports of the businesses they have invested in and those they are thinking of investing in. Instead of thoroughly reading these financial reports, they may rely on stockbrokers, the financial press, and other sources of information. Many individual investors turn to their stockbrokers for investment advice. Brokerage firms put out all sorts of analyses and publications, and they participate in the placement of new stock and bond securities issued by public businesses. A broker will be glad to provide you information from companies' latest financial reports. So, why should you bother reading this chapter if you can rely on other sources of investment information?

Looking beyond financial reports

Investors don't rely solely on financial reports when making investment decisions. Analyzing a business's financial reports is just one part of the process. You should consider these additional factors, depending on the business you're thinking about investing in:

- ✓ Industry trends and problems
- ✓ National economic and political developments
- ✓ Possible mergers, friendly acquisitions, and hostile takeovers
- ✓ Turnover of key executives
- ✓ Labor problems
- ✓ International markets and currency exchange ratios
- ✓ Supply shortages
- ✓ Product surpluses

Whew! This kind of stuff goes way beyond accounting, obviously, and is just as significant as financial statement analysis when you're picking stocks and managing investment portfolios.



The more you know about interpreting a financial report, the better prepared you are to evaluate the commentary and advice of stock analysts and other investment experts. If you can at least nod intelligently while your stockbroker talks about a business's P/E and EPS, you'll look like a savvy investor — and you may get more favorable treatment. (P/E and EPS, by the way, are two of the key ratios explained later in the chapter.) You may regularly watch financial news on television or listen to one of today's popular radio financial talk shows. The ratios explained in this chapter are frequently mentioned in the media.

This chapter covers financial statement ratios that you should understand, as well as warning signs to look out for in audit reports. (Part II of this book explains the three primary financial statements that are the core of every financial report: the income statement, the balance sheet, and the statement of cash flows.) I also suggest how to sort through the footnotes that are an integral part of every financial report to identify those that have the most importance to you.

Comparing Private and Public Business Financial Reports



As I explain in Chapters 2 and 12, the accounting profession is presently considering whether private companies should be relieved of the onerous burdens imposed by certain accounting and financial reporting standards. The main, almost exclusive focus of the standard setters over the last three decades has been on the accounting and financial reporting problems of large

public companies. There seems to be a consensus that many of these complex standards are not relevant to smaller, private businesses — and that the users of their financial reports are not well served by the standards. So far, there has not been a lot of concrete progress in identifying which particular standards should not apply to private companies. But it's still early in the game, so stay tuned.

Although accountants are loath to talk about it, the blunt fact is that many (perhaps most) private companies simply ignore some authoritative standards in preparing their financial reports. This doesn't mean that their financial reports are misleading — perhaps substandard, but not seriously misleading. In any case, a private business's annual financial report is generally bare bones. It includes the three primary financial statements (balance sheet, income statement, and statement of cash flows), plus some footnotes — and that's about it. I've seen private company financial reports that don't even have a letter from the president. In fact, I've seen financial reports of private businesses (mostly very small companies) that don't include a statement of cash flows, even though this financial statement is required according to financial reporting standards.



Public businesses are saddled with the additional layer of requirements issued by the Securities and Exchange Commission. (This federal agency has no jurisdiction over private businesses.) The financial reports and other forms filed with the SEC are available to the public at <http://www.sec.gov/edgar/searchedgar/companysearch.html>. The best known of these forms is the 10-K, which includes the business's annual financial statements in prescribed formats, with many supporting schedules and detailed disclosures that the SEC requires.

Many publicly owned businesses present very different annual financial reports to their stockholders than their filings with the SEC. A large number of public companies include only *condensed* financial information in their annual stockholder reports (not their full-blown and complete financial statements). They refer the reader to their more detailed SEC financial report for more specifics. The financial information in the two documents can't differ in any material way. In essence, a stock investor can choose from two levels of information — one quite condensed and the other very technical.

A typical annual financial report by a public company to its stockholders is a glossy booklet with excellent art and graphic design, including high-quality photographs. The company's products are promoted, and its people are featured in glowing terms that describe teamwork, creativity, and innovation — I'm sure you get the picture. In contrast, the reports to the SEC look like legal briefs — there's nothing fancy in these filings. The SEC filings contain information about certain expenses and require disclosure about the history of the business, its main markets and competitors, its principal officers, any major changes on the horizon, and so on. Professional investors and investment managers definitely should read the SEC filings. If you want information on the compensation of the top-level officers of the business, you have to go to its *proxy statement* (see the sidebar "Studying the proxy statement").

Studying the proxy statement

Public corporations solicit their stockholders' votes in the annual election of persons to sit on the board of directors and on other matters that must be put to a vote at the annual stockholders' meeting. The communication for soliciting votes from stockholders is called a *proxy statement*—the reason being that the stockholders give their votes to a *proxy*, or designated person, who actually casts the votes at the

annual meeting. The SEC requires many disclosures in proxy statements that are not found in annual financial reports issued to stockholders or in the business's annual 10-K. For example, compensation paid to the top-level officers of the business must be disclosed, as well as their stock holdings. If you own stock in a public corporation, take the time to read through the annual proxy statement you receive.

Analyzing Financial Statements with Ratios

Financial statements have lots of numbers in them. (Duh!) All these numbers can seem overwhelming when you're trying to see the big picture and make general conclusions about the financial performance and condition of the business. One very useful way to interpret financial reports is to compute *ratios*—that is, to divide a particular number in the financial report by another. Financial statement ratios are also useful because they enable you to compare a business's current performance with its past performance or with another business's performance, regardless of whether sales revenue or net income was bigger or smaller for the other years or the other business. In other words, using ratios cancels out size differences. (I bet you knew that, didn't you?)

Surprisingly, you don't find too many ratios in financial reports. Publicly owned businesses are required to report just one ratio (earnings per share, or EPS), and privately owned businesses generally don't report any ratios. Generally accepted accounting principles (GAAP) don't demand that any ratios be reported (except EPS for publicly owned companies). However, you still see and hear about ratios all the time, especially from stockbrokers and other financial professionals, so you should know what the ratios mean, even if you never go to the trouble of computing them yourself.



Ratios do not provide final answers — they’re helpful indicators, and that’s it. For example, if you’re in the market for a house, you may consider cost per square foot (the total cost divided by total square feet) as a way of comparing the prices of the houses you’re looking at. But you have to put that ratio in context: Maybe one neighborhood is closer to public transportation than another, and maybe one house needs more repairs than another. In short, the ratio isn’t the only factor in your decision.

Figures 13-1 and 13-2 present an income statement and balance sheet for a public business that will serve as the example for the rest of the chapter. I don’t include a statement of cash flows here — because no ratios are calculated from data in this financial statement. (Well, I should say that no cash flow ratios have yet become widespread and commonly used; you *could* take data from the statement of cash flows and calculate ratios, of course.) I don’t present the footnotes to the company’s financial statements here, but I discuss reading footnotes in the upcoming section “Frolicking Through the Footnotes.” The financial statements were audited by an independent CPA firm. (I tackle the nature of audits in Chapter 15, and later in this chapter, I explain why you should read the auditor’s report — see “Checking for Ominous Skies in the Audit Report.”)

(Dollar amounts in thousands, except per share amounts)	
Income Statement for Year	
Sales revenue	\$457,000
Cost of goods sold expense	298,750
Gross margin	\$158,250
Sales, administration, and general expenses	102,680
Earnings before interest and income tax	\$55,570
Interest expense	6,250
Earnings before income tax	\$49,320
Income tax expense	16,850
Net income	<u>\$32,470</u>
Basic earnings per share	\$3.82
Diluted earnings per share	\$3.61

Figure 13-1:
Income
statement
example for
a business.

(Dollar amounts in thousands)		
Balance Sheet at End of Year		
Assets		
Cash	\$14,850	
Accounts receivable	42,500	
Inventory	75,200	
Prepaid expenses	4,100	
Current assets		\$136,650
Fixed assets	\$246,750	
Accumulated depreciation	(46,825)	199,925
Total assets		<u>\$336,575</u>
Liabilities		
Accounts payable	\$8,145	
Accrued expenses payable	9,765	
Income tax payable	945	
Short-term notes payable	40,000	
Current liabilities		\$58,855
Long-term notes payable		60,000
Owners' Equity		
Capital stock (8,500,000 shares)	\$85,000	
Retained earnings	132,720	217,720
Total liabilities and owners' equity		<u>\$336,575</u>

Figure 13-2:
Balance sheet example for a business.

Gross margin ratio

As I explain in Chapters 4 and 9, making bottom-line profit begins with making sales and earning sufficient *gross margin* from those sales. By sufficient, I mean that your gross margin must cover the expenses of making sales and operating the business, as well as paying interest and income tax expenses, so that there is still an adequate amount left over for profit. You calculate the gross margin ratio as follows:

$$\text{Gross margin} \div \text{Sales revenue} = \text{Gross margin ratio}$$

So a business with a \$158.25 million gross margin and \$457 million in sales revenue (refer to Figure 13-1) earns a 34.6 percent gross margin ratio. Now, suppose the business had been able to reduce its cost of goods sold expense and had earned a 35.6 percent gross margin. That one additional point (one point equals 1 percent) would have increased gross margin \$4.57 million (1 percent \times \$457 million sales revenue) — which would have trickled down to earnings before income tax, assuming other expenses below the gross margin line had been the same (except income tax). Earnings before income tax would have been 9.3 percent higher:

$$\begin{aligned} & \$4,570,000 \text{ bump in gross margin} \div \$49,320,000 \\ & \text{earnings before income tax} = 9.3\% \text{ increase} \end{aligned}$$

Never underestimate the impact of even a small improvement in the gross margin ratio!

Investors can track the gross margin ratios for the two or three years whose income statements are included in the annual financial report, but they really can't get behind gross margin numbers for the "inside story." In their financial reports, public companies include a *management discussion and analysis* (MD&A) section that should comment on any significant change in the gross margin ratio. But corporate managers have wide latitude in deciding what exactly to discuss and how much detail to go into. You definitely should read the MD&A section, but it may not provide all the answers you're looking for. You have to search further in stockbroker releases, in articles in the financial press, or at the next professional business meeting you attend.

As I explain in Chapter 9, business managers pay close attention to *margin per unit* and *total margin* in making and improving profit. *Margin* does not mean *gross margin*, but rather it refers to sales revenue minus product cost and all other variable operating expenses of a business. In other words, *margin* is profit before the company's total fixed operating expenses (and before interest and income tax). Margin is an extremely important factor in the profit performance of a business. Profit hinges directly on margin.



The income statement in an external financial report discloses gross margin and operating profit, or earnings before interest and income tax expenses (see Figure 13-1 for instance). However, the expenses between these two profit lines in the income statement are not classified into variable and fixed. Therefore, businesses do not disclose margin information in their external financial reports — they wouldn't even think of doing so. This information is considered to be proprietary in nature; it is kept confidential and out of the hands of competitors. In short, investors do not have access to information about a business's margin or its fixed expenses. Neither GAAP nor the SEC requires that such information be disclosed — and it isn't! Nevertheless, stock analysts and investment pundits make the best estimates they can for the margins of businesses they analyze. But, they have to work with other information than what's in a company's financial report.

Profit ratio

Business is motivated by profit, so the profit ratio is very important, to say the least. The bottom line is not called *the bottom line* without good reason. The profit ratio indicates how much net income was earned on each \$100 of sales revenue:

$$\text{Net income} \div \text{Sales revenue} = \text{Profit ratio}$$

The business in Figure 13-1 earned \$32.47 million net income from its \$457 million sales revenue, so its profit ratio equals 7.1 percent, meaning that the business earned \$7.10 net income for each \$100 of sales revenue. (Thus, its expenses were \$92.90 per \$100 of sales revenue.) Profit ratios vary widely from industry to industry. A 5 to 10 percent profit ratio is common in many industries, although some high-volume retailers, such as supermarkets, are satisfied with profit ratios around 1 or 2 percent.



You can turn any ratio upside down and come up with a new way of looking at the same information. If you flip the profit ratio over to be sales revenue divided by net income, the result is the amount of sales revenue needed to make \$1 profit. Using the same example, \$457 million sales revenue \div \$32.47 million net income = 14.08, which means that the business needs \$14.08 in sales to make \$1.00 profit. So you can say that net income is 7.1 percent of sales revenue, or you can say that sales revenue is 14.08 times net income.

Earnings per share (EPS), basic and diluted

Publicly owned businesses, according to generally accepted accounting principles (GAAP), must report earnings per share (EPS) below the net income line in their income statements — giving EPS a certain distinction among ratios. Why is EPS considered so important? Because it gives investors a means of determining the amount the business earned on their stock share investments: EPS tells you how much net income the business earned for each stock share you own. The essential equation for EPS is as follows:

$$\text{Net income} \div \text{Total number of capital stock shares} = \text{EPS}$$

For the example in Figures 13-1 and 13-2, the company's \$32.47 million net income is divided by the 8.5 million shares of stock the business has issued to compute its \$3.82 EPS.

Note: EPS is extraordinarily important to the stockholders of businesses whose stock shares are publicly traded. These stockholders pay close attention to market price per share. They want the net income of the business to be communicated to them on a per share basis so that they can easily compare it with the market price of their stock shares. The stock shares of privately owned corporations are not actively traded, so there is no readily available market value for the stock shares. Private businesses do not have to report EPS according to GAAP. The thinking behind this exemption is that their stockholders do not focus on per share values and are more interested in the business's total net income.

The business in the example could be listed on the New York Stock Exchange (NYSE). Assume that its capital stock is being traded at \$70 per share. The Big Board (as it is called) requires that the *market cap* (total value of the shares issued and outstanding) be at least \$100 million and that it have at least 1.1 million shares available for trading. With 8.5 million shares trading at \$70 per share, the company's market cap is \$595 million, well above the NYSE's minimum. At the end of the year, this corporation has 8.5 million stock shares *outstanding*, which refers to the number of shares that have been issued and are owned by its stockholders. Thus, its EPS is \$3.82, as just computed.

But here's a complication: The business is committed to issuing additional capital stock shares in the future for stock options that the company has granted to its executives, and it has borrowed money on the basis of debt instruments that give the lenders the right to convert the debt into its capital stock. Under terms of its management stock options and its convertible debt, the business may have to issue 500,000 additional capital stock shares in the future. Dividing net income by the number of shares outstanding plus the number of shares that could be issued in the future gives the following computation of EPS:

$$\$32,470,000 \text{ net income} \div 9,000,000 \text{ capital stock shares issued and potentially issuable} = \$3.61 \text{ EPS}$$

This second computation, based on the higher number of stock shares, is called the *diluted earnings per share*. (*Diluted* means thinned out or spread over a larger number of shares.) The first computation, based on the number of stock shares actually issued and outstanding, is called *basic earnings per share*. Both are reported at the bottom of the income statement — see Figure 13-1.



So, publicly owned businesses report two EPS figures — unless they have a *simple capital structure* that does not require the business to issue additional stock shares in the future. Generally, publicly owned corporations have *complex capital structures* and have to report two EPS figures, as you see in Figure 13-1. Sometimes it's not clear which of the two EPS figures is being used in press releases and in articles in the financial press. You have to be careful to determine which EPS ratio is being used — and which is being used in the calculation of the price/earnings (P/E) ratio (explained in the next section).

The more conservative approach is to use diluted EPS, although this calculation includes a hypothetical number of shares that may or may not be actually issued in the future.



Calculating basic and diluted EPS isn't always as simple as my example may suggest. Here are just two examples of complicating factors that require the accountant to adjust the EPS formula. During the year a company may

- ✓ **Issue additional stock shares and buy back some of its stock shares.** (Shares of its stock owned by the business itself that are not formally cancelled are called *treasury stock*.) The weighted average number of outstanding stock shares is used in these situations.
- ✓ **Issue more than one class of stock, causing net income to be divided into two or more pools — one pool for each class of stock.** EPS refers to the *common* stock, or the most junior of the classes of stock issued by a business. (Let's not get into *tracking stocks* here, when a business divides itself into two or more sub-businesses and you have an EPS for each sub-part of the business, because few public companies do this.)

Price/earnings (P/E) ratio

The price/earnings (P/E) ratio is another ratio that's of particular interest to investors in public businesses. The P/E ratio gives you an idea of how much you're paying in the current price for stock shares for each dollar of earnings (the net income being earned by the business). Remember that earnings prop up the market value of stock shares.



The P/E ratio is, in one sense, a reality check on just how high the current market price is in relation to the underlying profit that the business is earning. Extraordinarily high P/E ratios are justified when investors think that the company's EPS has a lot of upside potential in the future.

The P/E ratio is calculated as follows:

$$\text{Current market price of stock} \div \text{Most recent trailing 12 months diluted EPS}^* = \text{P/E ratio}$$

* If the business has a simple capital structure and does not report a diluted EPS, its basic EPS is used for calculating its P/E ratio (see the previous section).

The capital stock shares of the business in our example are trading at \$70, and its diluted EPS for the latest year is \$3.61. **Note:** For the remainder of this section, I will use the term EPS; I assume you understand that it refers to diluted EPS for businesses with complex capital structures, or to basic EPS for businesses with simple capital structures.

Stock share prices of public companies bounce around day to day and are subject to big changes on short notice. To illustrate the P/E ratio, I use the \$70 price, which is the closing price on the latest trading day in the stock market. This market price means that investors trading in the stock think that the shares are worth about 19 times EPS ($\$70 \text{ market price} \div \$3.61 \text{ EPS} = 19$). This P/E ratio should be compared with the average stock market P/E to gauge whether the business is selling above or below the market average.

Over the last century, average P/E ratios have fluctuated more than you might think. I remember when the average P/E ratio was less than 10, and a time when it was more than 20. Also, P/E ratios vary from business to business, industry to industry, and year to year. One dollar of EPS may command only a \$12 market value for a mature business in a no-growth industry, whereas a dollar of EPS for dynamic businesses in high-growth industries may be rewarded with a \$35 market value per dollar of earnings (net income).

Dividend yield

The dividend yield ratio tells investors how much *cash income* they're receiving on their stock investment in a business. Suppose that our business example paid \$1.50 cash dividends per share over the last year, which is less than half of its EPS. (I should mention that the ratio of annual dividends per share divided by annual EPS is called the *payout ratio*.) You calculate the dividend yield ratio for this business as follows:

$$\begin{array}{l} \$1.50 \text{ annual cash dividend per share} \div \$70 \text{ current} \\ \text{market price of stock} = 2.1\% \text{ dividend yield} \end{array}$$

You can compare the dividend yield with the interest rate on high-grade debt securities that pay interest. The average interest rate of high-grade debt securities (U.S. Treasury bonds and Treasury notes being the safest) is sometimes two or more times the dividend yields on public corporations. In theory, market price appreciation of the stock shares makes up for this gap. Of course, stockholders take the risk that the market value will not increase enough to make their total return on investment rate higher than a benchmark interest rate.

Assume that long-term U.S. Treasury bonds are paying 4.5 percent annual interest, which is 2.4 percent higher than the business's 2.1 percent dividend yield in the example. If this business's stock shares don't increase in value by at least 2.4 percent over the year, its investors would have been better off investing in the debt securities instead. (Of course, they wouldn't have gotten all the perks of a stock investment, like those heartfelt letters from the president and those glossy financial reports.) The market price of publicly traded debt securities can fall or rise, so things get a little tricky in this sort of investment analysis.

Book value and book value per share



The amount reported in a business's balance sheet for owners' equity is called its *book value*. In the Figure 13-2 example, the book value of owners' equity is \$217.72 million at the end of the year. This amount is the sum of the accounts that are kept for owners' equity, which fall into two basic types: *capital accounts* (for money invested by owners minus money returned to them), and *retained earnings* (profit earned and not distributed to the owners). Just like accounts for assets and liabilities, the entries in owners' equity accounts are for the actual, historical transactions of the business.



If you remember only one thing, make sure it's this: Book value is *not* market value. The book value of owners' equity is not directly tied to the market value of a business. You could say that there is a disconnect between book value and market value, although this goes a little too far. Book value may be considered heavily in putting a market value on a business and its ownership shares. Or, it may play only a minor role. In any case, other factors come into play in setting the market value of a business and its ownership shares. Market value may be quite a bit more than book value, or considerably less than book value. Whether or not it is known, market value is *not* reported in the balance sheet of a business. For example, you do not see the market value of Google reported in its latest balance sheet or elsewhere in its annual financial report (although public companies include the market price ranges of their capital stock shares for each quarter of the year).

Public companies have one advantage: You can easily determine the current market value of their ownership shares and the market cap for the business as a whole (equal to the number of shares \times the market value per share.) The market values of capital stock shares of public companies are easy to find. Stock market prices are reported every trading day in many newspapers and on the Internet.

Private companies have one disadvantage: There is no active trading in their ownership shares to provide market value information. The shareowners of a private business probably have some idea of the price per share that they would be willing to sell their shares for, but until an actual buyer for their shares or for the business as a whole comes down the pike, market value is not known. Even so, in some situations there is a need to put a market value on the business and/or its ownership shares. For example, when a shareholder dies or gets a divorce there is need for a current market value estimate of the owner's shares (for estate tax or divorce settlement purposes). When making an offer to buy a private business, the buyer puts a value on the business, of course. The valuation of a private business is beyond the scope of this book. You can find more on this topic in a book I coauthored with my son, Tage C. Tracy, called *Small Business Financial Management Kit For Dummies* (Wiley).

One value of the ownership shares for both public and private businesses is *book value per share*. You calculate the book value per share for a business as follows:

$$\text{Owners' equity} \div \text{Number of stock shares outstanding} = \text{Book value per share}$$

The business shown in Figure 13-2 has issued 8.5 million capital stock shares. The book value of its \$217.72 million owners' equity divided by the number of stock shares gives a book value per share of \$25.61. If the business sold off its assets exactly for their book values and paid all its liabilities, it would end up with \$217.72 million left for the stockholders, and it could therefore distribute \$25.61 per share to them. But, of course, the company doesn't plan to go out of business, liquidate its assets, and pay off its liabilities anytime soon.



Is book value the major determinant of market value? No, generally speaking book value is not the dominant factor that drives the market price of a stock — not for a public company whose stock shares are traded every day, nor for a private business when a value is being put on the business. EPS is much more important for public companies. However, let's not throw out the baby with the bathwater — book value per share is not entirely irrelevant. Book value per share is the measure of the recorded value of the company's assets less its liabilities — the net assets backing up the business's stock shares.

Book value per share is important for *value investors*, who pay as much attention to the balance sheet factors of a business as to its income statement factors. They search out companies with stock market prices that are not too much higher, or even lower, than book value per share. Part of their theory is that such a business has more assets to back up the current market price of its stock shares, compared with businesses that have relatively high market prices relative to their book value per share. In the example, the business's stock is selling for about 2.8 times its book value per share (\$70 market price per share \div \$25.61 book value per share = 2.8 times). This may be too high for some investors and would certainly give value investors pause before deciding to buy stock shares of the business.

Book value per share can be calculated for a private business, of course. But its capital stock shares are not publicly traded, so there is no market price to compare the book value per share with. Suppose I own 1,000 shares of stock of a private business, and I offer to sell 100 of my shares to you. The book value per share might play some role in our negotiations. However, a more critical factor would be the amount of dividends per share the business will pay in the future, which depends on its earnings prospects. Your main income would be dividends, at least until you had an opportunity to liquidate the shares (which is uncertain for a private business).

Return on equity (ROE) ratio

The return on equity (ROE) ratio tells you how much profit a business earned in comparison to the book value of its owners' equity. This ratio is especially useful for privately owned businesses, which have no easy way of determining the market value of owners' equity. ROE is also calculated for public corporations, but, just like book value per share, it generally plays a secondary role and is not the dominant factor driving market prices. Here's how you calculate this ratio:

$$\text{Net income} \div \text{Owners' equity} = \text{ROE}$$

The business whose income statement and balance sheet are shown in Figures 13-1 and 13-2 earned \$32.47 million net income for the year just ended and has \$217.72 million owners' equity at the end of the year. Therefore, its ROE is 14.9 percent:

$$\begin{aligned} \$32,470,000 \text{ net income} \div \$217,720,000 \text{ owners' equity} \\ = 14.9\% \text{ ROE} \end{aligned}$$

Net income increases owners' equity, so it makes sense to express net income as the percentage of improvement in the owners' equity. In fact, this is exactly how Warren Buffett does it in his annual letter to the stockholders of Berkshire Hathaway. Over the 42 years ending in 2006, Berkshire Hathaway's average annual ROE was 21.4 percent, which is extraordinary. See the sidebar "If you had invested \$1,000 in Berkshire Hathaway in 1965."

If you had invested \$1,000 in Berkshire Hathaway in 1965

You probably have heard about Berkshire Hathaway and its CEO, Warren Buffett, who is the second richest person according to *Forbes* magazine's annual listing of the 400 richest people in America. (Bill Gates, the co-founder of Microsoft, is number one.) Suppose you had invested \$1,000 in Berkshire Hathaway in 1965 and held on to your shares for 42 years, to the end of 2006. At that time, the book value of your shares was about \$3.6 million (and the market value of your shares was quite a bit higher than that).

This Berkshire Hathaway investment example demonstrates the power of compounding at a high earnings rate over a long stretch of time. Under Mr. Buffett's time as CEO starting in 1965 through the end of 2006, the company earned an average 21.4 percent annual ROE. The actual annual ROE rates for Berkshire Hathaway fluctuated over the 42 years. Berkshire Hathaway had annual rates lower than its 21.4 percent average annual rate in 24 of the 42 years, including the most recent 8 years (1999 through 2006). (Data is from Berkshire Hathaway's 2006 annual financial report.)

Current ratio

The current ratio is a test of a business's *short-term solvency* — its capability to pay its liabilities that come due in the near future (up to one year). The ratio is a rough indicator of whether cash on hand plus the cash to be collected from accounts receivable and from selling inventory will be enough to pay off the liabilities that will come due in the next period.

As you can imagine, lenders are particularly keen on punching in the numbers to calculate the current ratio. Here's how they do it:

$$\text{Current assets} \div \text{Current liabilities} = \text{Current ratio}$$

Note: Unlike most other financial ratios, you don't multiply the result of this equation by 100 and represent it as a percentage.

Businesses are generally expected to maintain a minimum 2 to 1 current ratio, which means its current assets should be twice its current liabilities. In fact, a business may be legally required to stay above a minimum current ratio as stipulated in its contracts with lenders. The business in Figure 13-2 has \$136,650,000 in current assets and \$58,855,000 in current liabilities, so its current ratio is 2.3. It shouldn't have to worry about lenders coming by in the middle of the night to break its legs. Chapter 5 discusses current assets and current liabilities and how they are reported in the balance sheet.

Acid-test ratio

Most serious investors and lenders don't stop with the current ratio for testing the business's short-term solvency (its capability to pay the liabilities that will come due in the short term). Investors, and especially lenders, calculate the *acid-test ratio* — also known as the *quick ratio* or the *pounce ratio* — which is a more severe test of a business's solvency than the current ratio. The acid-test ratio excludes inventory and prepaid expenses, which the current ratio includes, and it limits assets to cash and items that the business can quickly convert to cash. This limited category of assets is known as *quick* or *liquid* assets.

You calculate the acid-test ratio as follows:

$$\text{Liquid assets} \div \text{Current liabilities} = \text{Acid-test ratio}$$

Note: Like the current ratio, you don't multiply the result of this equation by 100 and represent it as a percentage.

The business example in Figure 13-2 has two “quick” assets: \$14.85 million cash and \$42.5 million accounts receivable, for a total of \$57.35 million. (If it had any short-term marketable securities, this asset would be included in its total quick assets.) Total quick assets are divided by current liabilities to determine the company’s acid-test ratio, as follows:

$$\begin{aligned} \$57,350,000 \text{ quick assets} \div \$58,855,000 \text{ current} \\ \text{liabilities} = .97 \text{ acid-test ratio} \end{aligned}$$

Its .97 to 1.00 acid-test ratio means that the business would be just about able to pay off its short-term liabilities from its cash on hand plus collection of its accounts receivable. The general rule is that the acid-test ratio should be at least 1.0, which means that liquid (quick) assets should equal current liabilities. Of course, falling below 1.0 doesn’t mean that the business is on the verge of bankruptcy, but if the ratio falls as low as 0.5, that may be cause for alarm.



This ratio is also known as the *pounce ratio* to emphasize that you’re calculating for a worst-case scenario, where a pack of wolves (known as *creditors*) could pounce on the business and demand quick payment of the business’s liabilities. But don’t panic. Short-term creditors do not have the right to demand immediate payment, except under unusual circumstances. This ratio is a very conservative way to look at a business’s capability to pay its short-term liabilities — too conservative in most cases.

Return on assets (ROA) ratio and financial leverage gain

As I discuss in Chapter 5, one factor affecting the bottom-line profit of a business is whether it uses debt to its advantage. For the year, a business may realize a *financial leverage gain*, meaning it earns more profit on the money it has borrowed than the interest paid for the use of that borrowed money. A good part of a business’s net income for the year could be due to financial leverage.

The first step in determining financial leverage gain is to calculate a business’s return on assets (ROA) ratio, which is the ratio of EBIT (earnings before interest and income tax) to the total capital invested in operating assets. Here’s how to calculate ROA:

$$\text{EBIT} \div \text{Net operating assets} = \text{ROA}$$

Note: This equation uses *net operating assets*, which equals total assets less the non-interest-bearing operating liabilities of the business. Actually, many stock analysts and investors use the total assets figure because deducting all the non-interest-bearing operating liabilities from total assets to determine

net operating assets is, quite frankly, a nuisance. But I strongly recommend using net operating assets because that's the total amount of capital raised from debt and equity.

Compare ROA with the interest rate: If a business's ROA is, say, 14 percent and the interest rate on its debt is, say, 6 percent, the business's net gain on its debt capital is 8 percent more than what it's paying in interest. There's a favorable spread of 8 points (one point = 1 percent), which can be multiplied times the total debt of the business to determine how much of its earnings before income tax is traceable to financial leverage gain.

In Figure 13-2, notice that the business has \$100 million total interest-bearing debt: \$40 million short-term plus \$60 million long-term. Its total owners' equity is \$217.72 million. So its net operating assets total is \$317.72 million (which excludes the three short-term non-interest-bearing operating liabilities). The company's ROA, therefore, is:

$$\begin{aligned} \$55,570,000 \text{ EBIT} \div \$317,720,000 \text{ net operating assets} \\ = 17.5\% \text{ ROA} \end{aligned}$$

The business earned \$17.5 million (rounded) on its total debt — 17.5 percent ROA times \$100 million total debt. The business paid only \$6.25 million interest on its debt. So the business had \$11.25 million financial leverage gain before income tax (\$17.5 million less \$6.25 million).



ROA is a useful ratio for interpreting profit performance, aside from determining financial gain (or loss). ROA is a *capital utilization* test — how much profit before interest and income tax was earned on the total capital employed by the business. The basic idea is that it takes money (assets) to make money (profit); the final test is how much profit was made on the assets. If, for example, a business earns \$1 million EBIT on \$25 million assets, its ROA is only 4 percent. Such a low ROA signals that the business is making poor use of its assets and will have to improve its ROA or face serious problems in the future.

Frolicking Through the Footnotes

Reading the footnotes in annual financial reports is no walk in the park. The investment pros read them because in providing consultation to their clients they are required to comply with due diligence standards — or because of their legal duties and responsibilities of managing other peoples' money. When I was an accounting professor, I had to stay on top of financial reporting; every year I read a sample of annual financial reports to keep up with current practices. But beyond the group of people who get paid to read financial reports, does anyone read footnotes?

For a company you've invested in (or are considering investing in), I suggest that you do a quick read-through of the footnotes and identify the ones that seem to have the most significance. Generally, the most important footnotes are those dealing with the following matters:

- ✔ **Stock options awarded by the business to its executives:** The additional stock shares issued under stock options *dilute* (thin out) the earnings per share of the business, which in turn puts downside pressure on the market value of its stock shares, assuming everything else remains the same.
- ✔ **Pending lawsuits, litigation, and investigations by government agencies:** These intrusions into the normal affairs of the business can have enormous consequences.
- ✔ **Employee retirement and other post-retirement benefit plans:** Your main concerns here should be whether these future obligations of the business are seriously underfunded. I have to warn you that this particular footnote is one of the most complex pieces of communication you'll ever encounter. Good luck.
- ✔ **Debt problems:** It's not unusual for companies to get into problems with their debt. Debt contracts with lenders can be very complex and are financial straitjackets in some ways. A business may fall behind in making interest and principal payments on one or more of its debts, which triggers provisions in the debt contracts that give its lenders various options to protect their rights. Some debt problems are normal, but in certain cases lenders can threaten drastic action against a business, which should be discussed in its footnotes.
- ✔ **Segment information for the business:** Public businesses have to report information for the major segments of the organization — sales and operating profit by territories or product lines. This gives a better glimpse of the different parts making up the whole business. (Segment information may be reported elsewhere in an annual financial report than in the footnotes, or you may have to go to the SEC filings of the business to find this information.)

These are a few of the important pieces of information you should look for in footnotes. But you have to stay alert for other critical matters that a business may disclose in its footnotes, so I suggest scanning each and every footnote for potentially important information. Finding a footnote that discusses a major lawsuit against the business, for example, may make the stock too risky for your stock portfolio.

Checking for Ominous Skies in the Auditor's Report

The value of analyzing a financial report depends on the accuracy of the report's numbers. Understandably, top management wants to present the best possible picture of the business in its financial report. The managers have a vested interest in the profit performance and financial condition of the business; their yearly bonuses usually depend on recorded profit, for instance. As I mention several times in this book, the top managers and their accountants prepare the financial statements of the business and write the footnotes. This situation is somewhat like the batter in a baseball game calling the strikes and balls. Where's the umpire?



Independent CPA auditors are like umpires in the financial reporting game. The CPA comes in, does an audit of the business's accounting system and methods, and gives a report that is attached to the company's financial statements.

Publicly owned businesses are required to have their annual financial reports audited by independent CPA firms, and many privately owned businesses have audits done, too, because they know that an audit report adds credibility to the financial report.

What if a private business's financial report doesn't include an audit report? Well, you have to trust that the business prepared accurate financial statements following authoritative accounting and financial reporting standards and that the footnotes to the financial statements cover all important points and issues.

Unfortunately, the audit report gets short shrift in financial statement analysis, maybe because it's so full of technical terminology and accountant doublespeak. But even though audit reports are a tough read, anyone who reads and analyzes financial reports should definitely read the audit report. Chapter 15 provides more information on audits and the auditor's report.



The auditor judges whether the business's accounting methods are in accordance with appropriate accounting and financial reporting standards — generally accepted accounting principles (GAAP) for businesses in the United States. In most cases, the auditor's report confirms that everything is hunky-dory, and you can rely on the financial report. However, sometimes an auditor waves a yellow flag — and in extreme cases, a red flag. Here are the two important warnings to watch out for in an audit report:

- ✓ The business's capability to continue normal operations is in doubt because of what are known as *financial exigencies*, which may mean a low cash balance, unpaid overdue liabilities, or major lawsuits that the business doesn't have the cash to cover.

- ✔ One or more of the methods used in the report are not in complete agreement with appropriate accounting standards, leading the auditor to conclude that the numbers reported are misleading or that disclosure is inadequate. (Look for language in the auditor's report to this effect.)

Although auditor warnings don't necessarily mean that a business is going down the tubes, they should turn on that light bulb in your head and make you more cautious and skeptical about the financial report. The auditor is questioning the very information on which the business's value is based, and you can't take that kind of thing lightly.

Also, just because a business has a clean audit report doesn't mean that the financial report is completely accurate and aboveboard. As I discuss in Chapter 15, auditors don't always catch everything, and they sometimes fail to discover major accounting fraud. Also, the implementation of accounting methods is fairly flexible, leaving room for interpretation and creativity that's just short of *cooking the books* (deliberately defrauding and misleading readers of the financial report). Some massaging of the numbers is tolerated, which may mean that what you see on the financial report isn't exactly an untarnished picture of the business. I explain *window dressing* and *profit smoothing* — two common examples of massaging the numbers — in Chapter 12.

Chapter 14

How Business Managers Use a Financial Report

In This Chapter

- ▶ Recognizing the limits of external financial statements
 - ▶ Locating detailed financial condition information
 - ▶ Identifying more in-depth profit information
 - ▶ Looking for additional cash flow information
-

If you're a business manager, I strongly suggest that you read Chapter 13 before continuing with this one. Chapter 13 discusses how a business's lenders and investors read its financial reports. These stakeholders are entitled to regular financial reports so they can determine whether the business is making good use of their money. The chapter explains key ratios that the external stakeholders can use for interpreting the financial condition and profit performance of a business.



Business managers should understand the financial statement ratios in Chapter 13. Every ratio does double duty; it's useful to business lenders and investors *and* equally useful to business managers. For example, the profit ratio and return on assets ratio are extraordinarily important to both the external stakeholders and the managers of a business — the first measures the profit yield from sales revenue, and the second measures profit on the assets employed by the business.

But as important as they are, the external financial statements do not provide all the accounting information that managers need to plan and control the financial affairs of a business. Managers need additional information. Managers who look no further than the external financial statements are being very shortsighted — they don't have all the information they need to do their jobs. The accounts reported in external financial statements are like the table of contents of a book; each account is like a chapter title. Managers need to do more than skim chapter titles. As the radio personality Paul Harvey would say, managers need to look at *the rest of the story*.

This chapter looks behind the accounts reported in the external financial statements. I explain the types of additional accounting information that managers need in order to control financial condition and performance, and to plan the financial future of a business.

Building on the Foundation of the External Financial Statements



Managers are problems solvers. Every business has some problems, perhaps even some serious ones. However, external financial statements are not designed to expose those problems. Except in extreme cases — in which the business is obviously in dire financial straits — you’d never learn about its problems just from reading its external financial statements. To borrow lyrics from an old Bing Crosby song, external financial statements are designed to “accentuate the positive, eliminate the negative . . . [and] don’t mess with Mister In-Between.”

Seeking out problems and opportunities

Business managers need more accounting information than what’s disclosed in external financial statements for two basic purposes:

- ✓ To alert them to *problems* that exist or may be emerging that threaten the profit performance, cash flow, and financial condition of the business
- ✓ To suggest *opportunities* for improving the financial performance and health of the business

A popular expression these days is “mining the data.” The accounting system of a business is a rich mother lode of management information, but you have to dig that information out of the accounting database. Working with the controller (chief accountant), a manager should decide what information she needs beyond what is reported in the external financial statements.

Avoiding information overload

Business managers are very busy people. Nothing is more frustrating than getting reams of information that you have no use for. For that reason, the controller should guard carefully against information overload. While some types of accounting information should stream to business managers on a regular basis, other types should be provided only on an as-needed basis.

Ideally, the controller reads the mind of every manager and provides exactly the accounting information that each manager needs. In practice, that can't always happen, of course. A manager may not be certain about which information she needs and which she doesn't. The flow of information has to be worked out over time.

Furthermore, *how* to communicate the information is open to debate and individual preferences. Some of the additional management information can be put in the main body of an accounting report, but most is communicated in supplemental schedules, graphs, and commentary. The information may be delivered to the manager's computer, or the manager may be given the option to call up selected information from the accounting database of the business.

My point is simply this: Managers and controllers must communicate — early and often — to make sure managers get what they need without being swamped with unnecessary data. No one wants to waste precious time compiling reports that are never read. So before a controller begins the process of compiling accounting information for managers' eyes only, be sure there's ample communication about what each manager needs.

Gathering Financial Condition Information

The balance sheet — one of three primary financial statements included in a financial report — summarizes the financial condition of the business. Figure 14-1 lists the basic accounts in a balance sheet, without dollar amounts for the accounts and without subtotals and totals. Just 12 accounts are given in Figure 14-1: five assets (counting fixed assets and accumulated depreciation as only one account), five liabilities, and two owners' equity accounts. A business may report more than just these 12 accounts. For instance, a business may invest in marketable securities, or have receivables from loans made to officers of the business. A business may have intangible assets. A business corporation may issue more than one class of capital stock and would report a separate account for each class. And so on. The idea of Figure 14-1 is to focus on the core assets and liabilities of a typical business.

Assets	Liabilities
Cash	Accounts payable
Accounts receivable	Accrued expenses payable
Inventory	Income tax payable
Prepaid expenses	Short-term notes payable
Fixed assets	Long-term notes payable
Accumulated depreciation	
	Owners' Equity
	Invested capital
	Retained earnings

Figure 14-1: Hardcore accounts reported in a balance sheet.

Cash

The external balance sheet reports just one cash account. But many businesses keep several bank checking and deposit accounts, and some (such as gambling casinos and food supermarkets) keep a fair amount of currency on hand. A business may have foreign bank deposits in euros, English pounds, or other currencies. Most businesses set up separate checking accounts for payroll; only payroll checks are written against these accounts.



Managers should monitor the balances in every cash account in order to control and optimize the deployment of their cash resources. So, information about each bank account should be reported to the manager.

Managers should ask these questions regarding cash:

- ✔ Is the ending balance of cash the actual amount at the balance sheet date, or did the business engage in *window dressing* in order to inflate its ending cash balance? Window dressing refers to holding the books open after the ending balance sheet date in order to record additional cash inflow as if the cash was received on the last day of the period. Window dressing is not uncommon. (For more details, see Chapter 12.) If window dressing has gone on, the manager should know the true, actual ending cash balance of the business.
- ✔ Were there any *cash out days* during the year? In other words, did the company's cash balance actually fall to zero (or near zero) during the year? How often did this happen? Is there a seasonal fluctuation in cash flow that causes "low tide" for cash, or are the cash out days due to running the business with too little cash?
- ✔ Are there any limitations on the uses of cash imposed by loan covenants by the company's lenders? Do any of the loans require compensatory balances that require that the business keep a minimum balance relative

to the loan balance? In this situation the cash balance is not fully available for general operating purposes.

- ✓ Are there any out-of-the-ordinary demands on cash? For example, a business may have entered into buyout agreements with a key shareholder or with a vendor to escape the terms of an unfavorable contract. Any looming demands on cash should be reported to managers.

Accounts receivable

A business that makes sales on credit has the accounts receivable asset — unless it has collected all its customers' receivables by the end of the year, which is not very likely. To be more correct, the business has hundreds or thousands of individual accounts receivable from its credit customers. In its external balance sheet, a business reports just one summary amount for all its accounts receivable. However, this total amount is not nearly enough information for the business manager.

Here are questions a manager should ask about accounts receivable:

- ✓ Of the total amount of accounts receivable, how much is current (within the normal credit terms offered to customers), slightly past due, and seriously past due? A past due receivable causes a delay in cash flow and increases the risk of it becoming a *bad debt* (a receivable that ends up being partially or wholly uncollectible).
- ✓ Has an adequate amount been recorded for bad debts? Is the company's method for determining its bad debts expense consistent year to year? Was the estimate of bad debts this period tweaked in order to boost or dampen profit for the period? Has the IRS raised any questions about the company's method for writing off bad debts? (Chapter 7 discusses bad debts expense.)
- ✓ Who owes the most money to the business? (The manager should receive a schedule of customers that shows this information.) Which customers are the slowest payers? Do the sales prices to these customers take into account that they typically do not pay on time?

It's also useful to know which customers pay quickly to take advantage of prompt payment discounts. In short, the payment profiles of credit customers are important information for managers.

- ✓ Are there "stray" receivables buried in the accounts receivable total? A business may loan money to its managers and employees or to other businesses. There may be good business reasons for such loans. In any case, these receivables should not be included with accounts receivable, which should be reserved for receivables from credit sales to customers. Other receivables should be listed in a separate schedule.



Inventory

For businesses that sell products, inventory is typically a major asset. It's also typically the most problematic asset from both the management and accounting points of view. First off, the manager should understand the accounting method being used to determine the cost of inventory and the cost of goods sold expense. (You may want to quickly review the section in Chapter 7 that covers this topic.) In particular, the manager should have a good feel regarding whether the accounting method results in conservative or liberal profit measures.

Managers should ask these questions regarding inventory:

- ✔ How long, on average, do products remain in the warehouse before they are sold? The manager should receive a *turnover analysis* of inventory that clearly exposes the holding periods of products. Slow-moving products cause nothing but problems. The manager should ferret out products that have been held in inventory too long. The cost of these sluggish products may have to be written down or written off, and the manager has to authorize these accounting entries. The manager should review the sales demand for slow-moving products, of course.
- ✔ If the business uses the LIFO method (last-in, first-out), was there a *LIFO liquidation gain* during the period that caused an artificial and one-time boost in profit for the year? (I explain this aspect of the LIFO method in Chapter 7.)

The manager should also request these reports:

- ✔ Inventory reports that include side-by-side comparison of the costs and the sales prices of products (or at least the major products sold by the business). It's helpful to include the mark-up percent for each product, which allows the manager to focus on mark-up percent differences from product to product.
- ✔ Regular reports summarizing major product cost changes during the period, and forecasts of near-term changes. It may be useful to report the current replacement cost of inventory assuming it's feasible to determine this amount.

Prepaid expenses

Generally, the business manager doesn't need too much additional information on this asset. However, there may be a major decrease or increase in this asset from a year ago that is not consistent with the growth or decline in sales from year to year. The manager should pay attention to an abnormal change in the asset. Perhaps a new type of cost has to be prepaid now, such as insurance

coverage for employee safety triggered by an OSHA audit of the employee working conditions in the business. A brief schedule of the major types of prepaid expenses is useful.

Fixed assets and accumulated depreciation



Fixed assets is the all-inclusive term for the wide range of long-term operating assets used by a business — from buildings and heavy machinery to office furniture. Except for the cost of land, the cost of a fixed asset is spread over its estimated useful life to the business; the amount allocated to each period is called *depreciation expense*. The manager should know the company's accounting policy regarding which fixed assets are *capitalized* (the cost is recorded in a fixed asset account) and which are *expensed* immediately (the cost is recorded entirely to expense at the time of purchase).

Most businesses adopt a cost limit below which minor fixed assets (a screwdriver, stapler, or wastebasket, for example) are recorded to expense instead of being depreciated over some number of years. The controller should alert the manager if an unusually high amount of these small cost fixed assets were charged off to expense during the year, which could have a significant impact on the bottom line.

The manager should be aware of the general accounting policies of the business regarding estimating useful lives of fixed assets and whether the straight-line or accelerated methods of allocation are used. Indeed, the manager should have a major voice in deciding these policies, and not simply defer to the controller. In Chapter 7, I explain these accounting issues.

Using accelerated depreciation methods may result in certain fixed assets that are fully depreciated. These assets should be reported to the manager — even though they have a zero book value — so the manager is aware that these fixed assets are still being used but no depreciation expense is being recorded for their use.



Generally, the manager does not need to know the current replacement costs of *all* fixed assets — just those that will be replaced in the near future. At the same time, it is useful for the manager to get a status report on the company's fixed assets, which takes more of an engineering approach than an accounting approach. The status report includes information on the capacity, operating efficiency, and projected remaining life of each major fixed asset. The status report should include leased assets that are not owned by the business and which, therefore, are not included in the fixed asset account.

The manager needs an *insurance summary report* for all fixed assets that are (or should be) insured for fire and other casualty losses, which lists the types of coverage on each major fixed asset, deductibles, claims during the year,

and so on. Also, the manager needs a list of the various liability risks of owning and using the fixed assets. The manager has to decide whether the risks should be insured.

Accounts payable

As you know, individuals have credit scores that affect their ability to borrow money and the interest rates they have to pay. Likewise, businesses have credit scores. If a business has a really bad credit rating, it may not be able to buy on credit and may have to pay exorbitant interest rates. I don't have space here to go into the details of how credit rankings are developed for businesses. Suffice it to say that a business should pay its bills on time. If a business consistently pays its accounts payable late, this behavior gets reported to a credit rating agency (such as Dun & Bradstreet).

The manager needs a schedule of accounts payable that are *past due* (beyond the credit terms given by the vendors and suppliers). Of course, the manager should know the reasons that the accounts have become overdue. The manager may have to personally contact these creditors and convince them to continue offering credit to the business.



Frankly, some businesses operate on the principle of paying late. Their standard operating procedure is to pay their accounts payable two, three, or more weeks after the due dates. This could be due to not having adequate cash balances or wanting to hang on to their cash as long as possible. Years ago, IBM was notorious for paying late, but because its credit rating was unimpeachable, it got away with this policy.

Accrued expenses payable

The controller should prepare a schedule for the manager that lists the major items making up the balance of the accrued expenses payable liability account. Many operating liabilities accumulate or, as accountants prefer to say, *accrue* during the course of the year that are not paid until sometime later. One main example is employee vacation and sick pay; an employee may work for almost a year before being entitled to take two weeks vacation with pay. The accountant records an expense each payroll period for this employee benefit, and it accumulates in the liability account until the liability is paid (the employee takes his vacation). Another payroll-based expense that accrues is the cost of federal and state unemployment taxes on the employer.



Accrued expenses payable can be a tricky liability from the accounting point of view. There's a lot of room for management discretion (or manipulation, depending on how you look at it) regarding which particular operating liabilities to record as expense during the year, and which not to record as expense until

they are paid. The basic choice is whether to expense as you go or expense later. If you decide to record the expense as you go through the year, the accountant has to make estimates and assumptions, which are subject to error. Then there's the question of expediency. Employee vacation and sick pay may seem to be obvious expenses to accrue, but in fact many businesses do not accrue the expense on the grounds that it's simply too time consuming and, furthermore, that some employees quit and forfeit the rights to their vacations.

Many businesses guarantee the products they sell for a certain period of time, such as 90 days or one year. The customer has the right to return the product for repair (or replacement) during the guarantee period. For example, when I returned my iPod for repair, Apple should have already recorded in a liability account the estimated cost of repairing iPods that will be returned after the point of sale. Businesses have more "creeping" liabilities than you might imagine. With a little work, I could list 20 or 30 of them, but I'll spare you the details. My main point is that the manager should know what's in the accrued expenses payable liability account, and what's not. Also, the manager should have a good fix on when these liabilities will be paid.

Income tax payable



It takes an income tax professional to comply with federal and state income tax laws on business. The manager should make certain that the accountant responsible for its tax returns is qualified and up-to-date.

The controller should explain to the manager the reasons for a relatively large balance in this liability account at the end of the year. In a normal situation, a business should have paid 90 percent or more of its annual income tax by the end of the year. However, there are legitimate reasons that the ending balance of the income tax liability could be relatively large compared with the annual income tax expense — say 20 or 30 percent of the annual expense. It behooves the manager to know the basic reasons for a large ending balance in the income tax liability. The controller should report these reasons to the chief financial officer and perhaps the treasurer of the business.

The manager should also know how the business stands with the IRS, and whether the IRS has raised objections to the business's tax returns. The business may be in the middle of legal proceedings with the IRS, which the manager should be briefed on, of course. The CEO and (perhaps other top-level managers) should be given a frank appraisal of how things may turn out and whether the business is facing any additional tax payments and penalties. Needless to say, this is very sensitive information, and the controller may prefer that none of it be documented in a written report.



Finally, the chief executive officer working closely with the controller should decide how aggressive to be on income tax issues and alternatives. Keep in mind that tax avoidance is legal, but tax evasion is illegal. As you probably know, the income tax law is exceedingly complex, but ignorance of the law is no excuse. The controller should make abundantly clear to the manager whether the business is walking on thin ice in its income tax returns.

Interest-bearing debt

In Figure 14-1, the balance sheet reports two interest-bearing liabilities: one for short-term debts (those due in one year or less) and one for long-term debt. The reason is that financial reporting standards require that external balance sheets report the amount of *current liabilities* so the reader can compare this amount of short-term liabilities against the total of *current assets* (cash and assets that will be converted into cash in the short term). Interest-bearing debt that is due in one year or less is included in the current liabilities section of the balance sheet. (See Chapter 5 for more details.)

The amounts of the short-term and long-term debt accounts reported in the external balance sheet are not enough information for the manager.



The best practice is to lay out in one comprehensive schedule for the manager *all* the interest-bearing obligations of the business. The obligations should be organized according to their due (maturity) dates, and the schedule should include other relevant information such as the lender, the interest rate on each debt, the plans to roll over the debt (or not), the collateral, and the main covenants and restrictions on the business imposed by the lender.

Recall that debt is one of the two sources of capital to a business (the other being owners' equity, which I get to next). The sustainability of a business depends on the sustainability of its sources of capital. The more a business depends on debt capital, the more important it is to manage its debt well and maintain excellent relations with its lenders.

Raising and using debt and equity capital, referred to as *financial management* or *corporate finance*, is a broad subject that extends beyond the scope of this book. For more information, look at *Small Business Financial Management Kit For Dummies* (Wiley) — a book that my son, Tage C. Tracy, and I coauthored, which explains the financial management function in more detail.

Owners' equity



External balance sheets report two kinds of ownership accounts: one for *capital invested* by the owners in the business and one for *retained earnings* (profit that has not been distributed to shareowners). In Figure 14-1, just one invested capital account is shown in the owners' equity section, as if the business has only one class of owners' equity. In fact, business corporations, limited liability companies, partnerships, and other types of business legal entities can have complex ownership structures. The owners' equity sections in their balance sheets report several invested capital accounts — one for each class of ownership interest in the business.

Broadly speaking, the manager faces three basic issues regarding the owners' equity of the business:

- ✓ Is more capital needed from the owners?
- ✓ Should some capital be returned to the owners?
- ✓ Can and should the business make a cash distribution from profit to the owners and, if so, how much?

These questions belong in the field of financial management and extend beyond the scope of this book. However, I should mention that the external financial statements are very useful in deciding these key financial management issues. For example, the manager needs to know how much total capital is needed to support the sales level of the business. The *asset turnover ratio* (annual sales revenue divided by total assets) provides a good touchstone for determining the amount of capital that is needed for sales.



The external financial report of a business does not disclose the individual shareowners of the business and the number of shares each person or institution owns. The manager may want to know this information. Any major change in the ownership of the business usually is important information to the manager.

Culling Profit Information



The sales and expenses of a business over a period of time are summarized in a financial statement called the *income statement*. Profit (sales revenue minus expenses) is the bottom line of the income statement. Chapter 4 explains the externally reported income statement, as well as how sales revenue and expenses are interconnected with the operating assets and liabilities of the business. The income statement fits hand in glove with the balance sheet.

Chapter 9 explains internal profit reports to managers, which are called P&L (profit and loss) reports. P&L reports should be designed to help managers in their profit analysis and decision making. Chapter 9 is the logical take-off point for this section, in which I discuss the types of profit information managers need.

Margin: The catalyst of profit



A business makes profit by earning total margin that exceeds its total fixed expenses for the period. Margin equals sales revenue minus all variable expenses of generating the sales revenue. Cost of goods sold is the main variable expense for companies that sell products. Most businesses have other significant variable expenses, which depend either on sales volume (the quantity of products or services sold) or the dollar amount of sales revenue. P&L reports to managers should separate variable from fixed operating expenses, in order to measure margin.

Figure 14-2 presents a skeleton of the P&L report. No dollar amounts are given because I focus on the *kinds* of information that managers need in order to analyze and control profit. Note that operating expenses below the gross margin line are classified between variable and fixed. Therefore, the P&L report includes margin (profit before fixed operating expenses). Income statements in external financial reports do not classify the behavior of operating expenses.

The P&L report stops at the operating profit line, or earnings before interest and income tax expenses. (Interest is in the hands of the chief financial officer of the business, and income tax is best left to tax professionals.)

<i>Start with</i>	Sales revenue
<i>Deduct</i>	<u>Cost of goods sold expense</u>
<i>Equals</i>	Gross margin
<i>Deduct</i>	<u>Variable operating expenses</u>
<i>Equals</i>	Margin
<i>Deduct</i>	<u>Fixed operating expenses</u>
<i>Equals</i>	Operating profit*

Figure 14-2:
Skeleton of
a P&L (profit
and loss)
report.

* Also called operating earnings, and earnings before interest and taxes (EBIT)



Most businesses sell a wide variety of products and have many sources of sales revenue. The margins per unit on each source of sales vary. It's quite unusual to find a business that earns the same margin ratio on all its sales. The manager needs information on sales revenue and margin for each mainstream source of sales. But the term "mainstream source of sales" will have very different meanings for each business. In analyzing profit, one of the main challenges facing business managers is deciding how to organize, categorize, and aggregate the huge volume of data on sales and expenses.

For example, consider a hardware store in Boulder, Colorado that sells more than 100,000 different products (including different sizes of the same products). Suppose it has ten key managers with sales and profit responsibility. This means that each manager would be responsible for 10,000 different sources of sales. It would be possible to report every specific sale to the manager, but this would be absurd! The same is true for a high-volume retailer like Target or Costco. For a Honda or Toyota auto dealer, on the other hand, reporting each new car sale to the manager would be practical.



Regardless of how sales are reported to the manager, *all* variable expenses of each sales source should be matched against the sales revenue in order to determine margin for that source. The alternative is to match only the cost of goods sold expense with sales revenue, which means that the manager knows only gross margin instead of final margin (after variable operating expenses are also deducted from sales revenue).

Sales revenue and expenses

In this section, I offer examples of sales revenue and expense information that managers need that is not reported in the external income statement of a business. Given the very broad range of different businesses and different circumstances, I can't offer much detail.

Here's a sampling of the kinds of accounting information that business managers need either in their P&L reports or in supplementary schedules and analyses:

- ✓ **Sales volumes** (quantities sold) for all sources of sales revenue.
- ✓ **List sales prices and discounts, allowances, and rebates** against list sales prices. For many businesses (but not all), sales pricing is a two-sided affair that starts with list prices (such as manufacturer's suggested retail price) and includes deductions of all sorts from the list prices.
- ✓ **Sales returns** — products that were bought but later returned by customers.
- ✓ **Special incentives** offer by suppliers that effectively reduce the purchase cost of products.

- ✓ Abnormal charges for **embezzlement and fraud losses**.
- ✓ Significant **variations in discretionary expenses** from year to year, such as repair and maintenance, employee training costs, and advertising.
- ✓ **Illegal payments** to secure business, including bribes, kickbacks, and other under-the-table payments. Keep in mind that businesses are not willing to admit to making such payments, much less report them in internal communications. Therefore, the manager should know how these payments are disguised in the accounts of the business.
- ✓ Sales revenue and margin for **new products**.
- ✓ Significant **changes in fixed costs** and reasons for the changes.
- ✓ **Expenses that surged** much more than increases in sales volume or sales revenue.
- ✓ **New expenses** that show up for first time.
- ✓ **Accounting changes** (if any) regarding when sales revenue and expenses are recorded.



The above items do not constitute an exhaustive list. But the list covers many important types of information that managers need in order to interpret their P&L reports and to plan profit improvements in the future. Analyzing profit is a very open-ended process. There are many ways to slice and dice sales and expense data. Managers have only so much time at their disposal, but they should take the time to understand and analyze the main factors that drive profit.

Digging into Cash Flow Information

Chapter 6 explains the statement of cash flows included in a business's external financial report. Cash flows are divided into three types:

- ✓ Cash flows from **operating activities** (“operating” refers to making sales and incurring expenses in the process of earning profit)
- ✓ Cash flows from **investing activities** (outlays for new long-term assets and proceeds from disposals of these assets)
- ✓ Cash flows from **financing activities** (borrowing and repaying debt; raising capital from and returning capital to owners; and cash distributions from profit to owners)

Distinguishing investing and financing cash flows from operating cash flows



Investing and financing decisions are the heart of business financial management. Every business must secure and invest capital. No capital, no business — it's as simple as that. Inadequate capital clamps limits on the growth potential of a business. In larger businesses, the financing and investing activities are the domain of the chief financial officer (CFO), who works with other high-level executives in setting the financial strategies and policies of the business.

The field of financial management — raising capital for a business and deploying its capital — is beyond the scope of this book. For more information, you can refer to the book I coauthored with my son, *Small Business Financial Management Kit For Dummies* (Wiley).

This section concentrates on cash flow from operating activities. These cash flows are in the domain of managers with operating responsibilities — managers who have responsibilities for sales and the expenses that are directly connected with making sales. These managers should understand the cash flow impacts of their sales and expenses. (See the sidebar “Cash flow characteristics of sales and expenses.”) Their sales and expense decisions drive the operating activity cash flows of the business.

Cash flow characteristics of sales and expenses

In reading their P&L reports, managers should keep in mind that the accountant records sales revenue when sales are made — regardless of when cash is received from customers. Also, the accountant records expenses to match expenses with sales revenue and to put expenses in the period where they belong — regardless of when cash is paid for the expenses. The manager should not assume that sales revenue equals cash inflow, and that expenses equal cash outflow.

The cash flow characteristics of sales and expenses are summarized as follows:

- ✓ Cash sales generate immediate cash inflow. Keep in mind that sales returns and sales price adjustments after the point of sale reduce cash flow.
- ✓ Credit sales do not generate immediate cash inflow. There's no cash flow until the customers' receivables are actually collected. There's a cash flow lag from credit sales.
- ✓ Many operating costs are not paid until several weeks (or months) after they are recorded as expense; and a few operating costs are paid before the costs are charged to expense.
- ✓ Depreciation expense is recorded by reducing the book value of an asset and does not involve cash outlay in the period when it is recorded. The business paid out cash when the asset was acquired. (Amortization expense on intangible assets is the same.)

Managing operating cash flows



In a small, one-owner/one-manager business, one person has to manage both profit and cash flow from profit. In larger businesses, managers who have profit responsibility may or may not have cash flow responsibility. The profit manager may ignore the cash flow aspects of his sales and expense activities. The responsibility for controlling cash flow falls on some other manager. Of course, someone should manage the cash flows of sales and expenses. The following comments speak to this person in particular.

The net cash flow during the period from carrying on profit-making operations depends on the changes in the operating assets and liabilities directly connected with sales revenue and expenses. Figure 14-3 highlights these assets and liabilities, and also retained earnings. Changes in these accounts during the year determine the cash flow from operating activities. In other words, changes in these accounts boost or crimp cash flow.

Note that *retained earnings* is highlighted in Figure 14-3. Profit increases this owners' equity account. Profit is the starting point for determining cash flow from operating activities. (Alternatively, a business may use the direct method for determining and reporting cash flow from operating activities, which I explain in Chapter 6.)

Assets	Liabilities
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Cash</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Accounts receivable</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Inventory</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Prepaid expenses</div>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Accounts payable</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Accrued expenses payable</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Income tax payable</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Short-term notes payable</div>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Fixed assets</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Accumulated depreciation</div>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Long-term notes payable</div>
	Owners' Equity
	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Invested capital</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Retained earnings</div>

Figure 14-3:
Assets and liabilities affecting cash flow from operating activities.

Changes in these accounts affect cash flow from operating activities.

The cash flow from profit is determined as follows:

1. **Start with the accounting profit number, usually labeled *net income*.**
2. **Add depreciation expense (and amortization expense, if any)** because there is no cash outlay for the expense during the period.
3. **Deduct increases or add decreases in operating assets** because
 - An increase requires additional cash outlay to build up the asset.
 - A decrease means part of the asset is liquidated and provides cash.
4. **Add increases or deduct decreases in operating liabilities** because
 - An increase means less cash is paid out than the expense.
 - A decrease means more cash is paid out to reduce the liability.



You may ask: What about changes during the year in those balance sheet accounts that are not highlighted in Figure 14-3? Well, these changes are reported either in the cash flow from investing activities or the cash flow from financing activities sections of the statement of cash flows. So, all balance sheet account changes during the year end up in the statement of cash flows.

The manager should closely monitor the changes in operating assets and liabilities (see Figure 14-3). A good general rule is that each operating asset and liability should change about the same percent as the percent change in the sales activity of the business. If sales revenue increases, say, 10 percent, then operating assets and liabilities should increase *about* 10 percent. The percents of increases in the operating assets and liabilities (in particular, accounts receivable, inventory, accounts payable, and accrued expenses payable) should be emphasized in the cash flow report to the manager. The manager should not have to take out his calculator and do these calculations.

Controlling cash flow from profit (operating activities) means controlling changes in the operating assets and liabilities of making sales and incurring expenses: There's no getting around this fact of business life. There's no doubt that cash flow is king. You can be making good profit, but if you don't turn the profit into cash flow quickly, you are headed for big trouble.

Chapter 15

Audits and Accounting Fraud

In This Chapter

- ▶ Trying to prevent misleading financial reports
 - ▶ Interpreting the auditor's report
 - ▶ Dealing with managers who massage the numbers
 - ▶ Coping with fraud (if you can find it)
 - ▶ Auditing the auditors
-

Suppose you're one of the external shareowners of a business or one of its lenders. You depend on its financial reports for the information you need about your stake in the business. How can you be sure that its accounting methods conform with established standards? How do you know whether the business makes adequate disclosure in its financial reports? Is the business playing by the rules in measuring its profit and in releasing financial information? You trust the managers, or you wouldn't have put your money in the business. But you still have these nagging questions. Well, in business, as in politics, the answer is: *Trust, but verify.*

Many businesses hire an independent CPA (certified public accountant) to audit their financial reports. An audit provides assurance that the financial report of the business is correct and not misleading. The CPA examines the evidence and renders a report. The auditor's report says that the business uses proper accounting methods and its financial report provides adequate disclosure. Or not. Things get messy when the auditor finds fault with the accounting or financial disclosure of the business. But it's better to be warned than to continue on your merry way and be unaware of the deficiencies in the business's financial report.

A financial report can be wrong and misleading because of innocent, unintentional *errors*, or because of deliberate cold-blooded *fraud*. Errors can happen because of incompetence and carelessness. Fraud happens when the company's accountants and managers are crooks. The CPA auditor should definitely catch all significant errors. The auditor's responsibility for discovering fraud is not as clear-cut. You may think catching fraud is the purpose of an audit, but I'm sorry to tell you it's not as simple as that.

Exploring the Need for Audits

One reason for audits — especially for smaller private companies that do not employ professionally qualified accountants — is to have a second set of eyes look over the business’s accounting methods and financial reports. The investors and lenders of a business are more comfortable having an audit. Indeed, they may demand an annual audit as a condition of putting their money in the business. After all, there’s the possibility that not everything is on the up-and-up in the business and in its financial report.

I hope I’m not the first person to point this out to you, but the business world is not like Sunday school. Not everything is pure and straight. A business could deliberately deceive its investors and lenders with false or misleading numbers in its financial report. That’s where audits come in. Audits are one means of keeping misleading financial reporting to a minimum.

In a sense, CPA auditors are like highway patrol officers who enforce traffic laws and issue tickets to keep speeding to a minimum. Or, if you prefer another analogy, a business having an independent accounting professional come in once a year to check up on its accounting is like a person getting a physical exam once a year. The audit exam may uncover problems that the business was not aware of, and knowing that the auditors come in once a year to take a close look at things keeps the business on its toes.

After completing an audit examination, the CPA prepares a short report stating whether the business has prepared its financial report according to the appropriate U.S. or international accounting and reporting standards (which I explain in Chapter 2). In this way, audits are an effective means of enforcing accounting standards. The auditors hold the feet of managers to the fire, or at least that’s how it should work.



Businesses whose ownership and debt securities (stock shares and bonds) are traded in public markets in the United States are required to have annual audits by an independent CPA firm. (The federal securities laws of 1933 and 1934 require audits.) For a publicly traded company, the cost of an annual audit is the price the company pays for going into public markets for its capital and for having its securities traded in a public marketplace — which provides liquidity for its securities, of course.

Although federal law doesn’t require audits for private businesses, banks and other lenders to private businesses may insist on audited financial statements. If lenders don’t require audited statements, a business’s shareowners have to decide whether an audit is a good investment. Of course, audits aren’t cheap. It’s hard to do an audit of even a small business in less than 100 hours. At \$100 per hour (which is probably too low an estimate), the audit fee would be

\$10,000. Owners and investors in a private business should balance the cost of an audit (which they bear) against the benefit of getting more reliable financial statements from the business.



Instead of a full-fledged audit, which they can't realistically afford, many smaller businesses have a CPA come in regularly to look over their accounting methods and give advice on their financial reporting. Unless a CPA has done a complete audit, she has to be very careful not to express an opinion of the company's financial statements. Without a careful examination of the evidence supporting the amounts reported in the financial statements, the CPA is in no position to give an opinion on the financial statements prepared from the accounts of the business.

What's in an Auditor's Report

The large majority of financial statement audit reports give the business a clean bill of health, or what's called a *clean opinion*. (The technical term for this opinion is an *unqualified opinion*, which means that the auditor does not qualify or restrict his opinion regarding any significant matter.) At the other end of the spectrum, the auditor may state that the financial statements are misleading and should not be relied upon. This negative, disapproving audit report is called an *adverse opinion*. That's the big stick that auditors carry: They have the power to give a company's financial statements an adverse opinion, and no business wants that.

The threat of an adverse opinion almost always motivates a business to give way to the auditor and change its accounting or disclosure in order to avoid getting the kiss of death of an adverse opinion. An adverse audit opinion says that the financial statements of the business are misleading. The Securities and Exchange Commission (SEC) does not tolerate adverse opinions by auditors of public businesses; it would suspend trading in a company's securities if the company received an adverse opinion from its CPA auditor.

The clean (unqualified) opinion

If the auditor finds no serious problems, the CPA firm gives the business's financial statements an *unqualified* or *clean* opinion. However, I should warn you that the standard audit report has enough defensive, legalistic language to make even a seasoned accountant blush. If you have any doubts, go to the Web site of any public corporation and look at its most recent financial statements, in particular the auditor's report.

The following summary cuts through the jargon and explains what the audit report really says:

Standard Audit Report (Unqualified or Clean Opinion)

<i>1st paragraph</i>	We did an audit, but the financial statements are the responsibility of management; we just express an opinion of them.
<i>2nd paragraph</i>	We carried out audit procedures that provide us a reasonable basis for expressing our opinion, but we don't necessarily catch everything.
<i>3rd paragraph</i>	The company's financial statements conform to accounting and financial reporting standards and are not misleading.



For large public companies (those with over \$75 million market cap at the time of this writing), the auditor's report must contain a paragraph explaining that the CPA audited the company's internal controls over financial reporting, which expresses an opinion on the effectiveness of these controls. This extension of the auditor's report concerning internal controls is the outgrowth of the financial reporting fraud scandals over the last decade (does Enron ring a bell?). Top management of the business must also include a statement in the annual financial report giving their opinion on the company's financial reporting internal controls.

Other kinds of audit opinions

An audit report that does *not* give a clean opinion may look very similar to a clean-opinion audit report to the untrained eye. Some investors see the name of a CPA firm next to the financial statements and assume that everything is okay — after all, if the auditor had seen a problem, the Feds would have pounced on the business and put everyone in jail, right? Well, not exactly. How do you know when an auditor's report may be something other than a straightforward, no-reservations clean opinion? *Look for more language than just the standard three paragraphs* — that's the key.

Additional language in an audit report is important to look for — it's never good news. For example, the auditor's report may point out a flaw in the company's financial statements but not a fatal flaw that would require an adverse opinion. In this situation, the CPA issues a *qualified opinion*. The auditor includes a short explanation of the reasons for the qualification. You don't see qualified audit opinions that often, but you should read the auditor's report to be sure.



One modification to an auditor's report is very serious — when the CPA expresses substantial doubts about the capability of the business to continue as a going concern. A *going concern* is a business that has sufficient financial wherewithal and momentum to continue its normal operations into the foreseeable future and would be able to absorb a bad turn of events without having to default on its liabilities. A going concern does not face an imminent financial crisis or any pressing financial emergency. A business could be under some financial distress but overall still be judged a going concern. Unless there is evidence to the contrary, the CPA auditor assumes that the business is a going concern.

But in some cases, the auditor may see unmistakable signs that a business is in deep financial waters and may not be able to convince its creditors and lenders to give it time to work itself out of its present financial difficulties. The creditors and lenders may force the business into involuntary bankruptcy, or the business may make a preemptive move and take itself into voluntary bankruptcy. The equity owners (stockholders of a corporation) may end up holding an empty bag after the bankruptcy proceedings have concluded. (This is one of the risks that stockholders take.) If an auditor has serious concerns about whether the business is a going concern, these doubts are spelled out in the auditor's report.

Who's Who in the World of Audits

Some CPAs operate as sole practitioners, but many CPAs form partnerships (also called *firms*). A CPA firm has to be large enough to assign enough staff auditors to a client so that all audit work can be completed in a relatively short period — financial reports are generally released about four to six weeks after the close of the fiscal year. Large businesses need large CPA firms, and very large global business organizations need very large international CPA firms. The public accounting profession consists of four very large international firms; several good-sized second-tier national firms; and many regional firms, small local firms, and sole practitioners.

The Big Four international CPA firms are household names in the business world:

- ✓ **Ernst & Young**
- ✓ **PricewaterhouseCoopers** (all one word with the C capitalized — the result of the merger of two firms)
- ✓ **Deloitte Touche Tohmatsu**
- ✓ **KPMG** (the *PM* in the name derives from an earlier time when *Peat Marwick* was part of the firm's name)

These four firms and other large CPA partnerships are legally organized as *limited liability partnerships*, and you see *LLP* after their names. The Big Four audit the large majority of the public corporations in the United States. The Big Four are international in scope and employ a large number of people. For example, Ernst & Young has about 130,000 employees worldwide. In contrast, browse through the CPA section in the business listings of your local phone book; you'll find many sole practitioners and small CPA firms.



Many CPAs do *not* do auditing. In fact, they wouldn't touch auditing with a ten-foot pole. They provide income tax, financial advising, and business consulting services — and they make a handsome income doing so. They avoid auditing for several reasons. Perhaps the most important reason is the risk of being sued for failing to discover fraud in financial statements on which the CPA expressed a clean opinion. Auditors have a lot of trouble discovering fraud, which I discuss in the later section “Discovering Fraud, or Not.”

Another reason many CPAs shy away from auditing is that businesses don't want to pay for the cost of a good audit; they want to buy an audit opinion on the cheap. Generally, auditing is not as lucrative as income tax, advising, and consulting services. Also, auditing is much more regulated as compared with income tax and consulting. All in all, it's a quieter life for CPAs without auditing. Auditing is a high risk and high stress activity, but not a particularly high income activity. Nevertheless, some small CPA firms do audits. Most mid-size and larger regional CPA firms do audits; auditing is a sizeable part of their revenue. Auditing is the mainstay of the Big Four and other national CPA firms.

Standing Firm When Companies Massage the Numbers, or Not

I majored in accounting in college and, upon graduation, went to work for one of the national CPA firms. I took great pride in my profession. I went on to get my Ph.D. in accounting, and I taught at the University of California in Berkeley and at the University of Colorado in Boulder for 40 years before retiring. I regularly taught the auditing course, which introduces students to the audits of financial statements by independent CPAs.

I always stressed that an auditor is duty-bound to exercise *professional skepticism*. The auditor should have a mindset that challenges the accounting methods and reporting practices of the client in order to make sure that its financial statements conform with accounting standards and are not misleading. A good auditor should be tough on the accounting methods of the client. An auditor should never be a weak, look-the-other-way, let's-go-along-with-management reviewer of a business's accounting methods and financial reporting practices. An auditor should be as mean as a junkyard guard dog — a true enforcer of accounting and financial reporting standards.

Ideally, a business should select the accounting methods that are best suited to how it operates and stick with those methods over time; its managers should never intervene in the accounting process. Well, it doesn't always work this way. I explain in Chapter 12 that business managers don't always remain on the sidelines regarding the accounting in their business. Sometimes managers, working in cahoots with the controller, intervene and manipulate the timing for recording sales revenue and expenses (and gains and losses in some situations). In these situations, management overrides normal accounting procedures.



In many audits the CPA becomes aware of heavy-handed accounting manipulation (also called *massaging the numbers*) for purposes such as smoothing year-to-year profit, boosting profit for the year, or making the business appear more solvent than it really is. Generally, managers have some ground to stand on; there is some rationale for their accounting machinations. But both the managers and the CPA auditor know what's going on: The financial statements are being tweaked.

What's an auditor to do? The auditor is under pressure to go along with management, even though he may strongly disagree with the accounting manipulations. He knows that better accounting should be used or that disclosure should be more adequate. Too often, instead of holding his ground, the CPA capitulates and does not force management to change. He allows the financial statements to be manipulated. This is a harsh comment, and I don't make it lightly. If you could get frank answers from practicing CPA auditors on this issue, you'd find that most agree with me.

Here's my take on the situation: CPA auditors go along with management massaging of the numbers (and "massaging" disclosure) if they think that the financial statements are not seriously misleading. The CPA's rationale is this: Yes, the financial statements could be more correct and could provide better disclosure, but all in all the financial statements are not seriously misleading.



I must acknowledge that in many situations CPA auditors do stand their ground: They persuade the business not to manipulate its accounting numbers and to provide better disclosure. However, the CPA cannot brag about this in the audit report, saying "We talked management out of manipulating the accounting numbers." CPA auditors deserve a lot of credit for working behind the scenes to enforce accounting and financial reporting standards. At the same time, many auditors could — and should — be tougher.

Discovering Fraud, or Not

Massaging the numbers is one thing. Accounting and financial reporting *fraud*, also called *cooking the books*, is another thing altogether. Accounting fraud refers to such schemes as recording sales revenue for products and services that have not been sold, not recording expenses that have been incurred, recording gains that have not and probably will not be realized, and not recording losses that have been sustained. Financial reporting fraud encompasses accounting fraud; it also includes failing to disclose negative matters that should be disclosed in a financial report or making deliberately misleading disclosures in a financial report.



The track record of CPA auditors in discovering accounting and financial reporting fraud is not very good. The number of well-known companies that engaged in accounting and financial reporting fraud in recent years that was not discovered by their CPA auditors is truly staggering. The best known of these companies was Enron, but hundreds of companies committed accounting fraud. Enron is also infamous for the reason that its auditor, Arthur Andersen & Company, was found guilty of obstruction of justice because its senior staff persons on the audit destroyed audit evidence. Almost overnight this venerable CPA firm ceased to exist. Over the years, I had attended several faculty workshops held by Arthur Andersen, and I had the highest regard for the firm. Quite clearly, in the case of the Enron audit, something went seriously wrong.

Auditors have trouble discovering fraud for several reasons. The most important reason, in my view, is that those managers who are willing to commit fraud understand that they must do a good job of concealing it. Managers bent on fraud are very clever in devising schemes that look legitimate, and they are very good at generating false evidence to hide the fraud. These managers think nothing of lying to their auditors. Also, they are aware of the standard audit procedures used by CPAs and design their fraud schemes to avoid audit scrutiny as much as possible.

Over the years, the auditing profession has taken somewhat of a wishy-washy position on the issue of whether auditors are responsible for discovering accounting and financial reporting fraud. The general public is confused because CPAs seem to want to have it both ways. CPAs don't mind giving the impression to the general public that they catch fraud, or at least catch fraud in most situations. However, when a CPA firm is sued because it didn't catch fraud, the CPA pleads that an audit conducted according to generally accepted auditing standards does not necessarily discover fraud in all cases.

In the court of public opinion, it is clear that people think that auditors should discover any material accounting fraud — and, for that matter, auditors should discover any other material fraud against the business by its managers, employees, vendors, or customers. CPAs refer to the difference between their responsibility for fraud detection (as they define it) and the responsibility of

auditors perceived by the general public as the “expectations gap.” CPAs want to close the gap — not by taking on more responsibility for fraud detection, but by lowering the expectations of the public regarding their responsibility.

You’d have to be a lawyer to understand in detail the case law on auditors’ legal liability for fraud detection, and I’m not a lawyer. But, quite clearly, CPAs are liable for gross negligence in the conduct of an audit. If the judge or jury concludes that gross negligence was the reason the CPA failed to discover fraud, the CPA is held liable. (CPA firms have paid millions and millions of dollars in malpractice lawsuit damages.)



In a nutshell, standard audit procedures do not always uncover fraud, except when the perpetrators of the fraud are particularly inept at covering their tracks. Using tough-minded forensic audit procedures would put auditors in adversarial relationships with their clients, and CPA auditors want to maintain working relationships with clients that are cooperative and friendly. A friendly auditor, some would argue, is an oxymoron.

One last point: In many accounting fraud cases that have been reported in the financial press, the auditor knew about the accounting methods of the client but did not object to the misleading accounting — you may call this an *audit judgment failure*. In these cases, the auditor was overly tolerant of questionable accounting methods used by the client. Perhaps the auditor may have had serious objections to the accounting methods, but the client persuaded the CPA to go along with the methods. In many respects, the failure to object to bad accounting is more serious than the failure to discover accounting fraud, because it strikes at the integrity and backbone of the auditor.

Who Audits the Auditors?

One result from the plethora of Enron-type accounting fraud scandals was passage of the 2002 Sarbanes-Oxley Act, which was quickly signed into law by President George W. Bush. The Act imposed new duties on corporate management regarding their responsibilities over internal controls that are designed to prevent financial reporting fraud. The act also established a new regulatory board that has broad powers over CPA firms that audit public businesses: the Public Company Accounting Oversight Board (PCAOB), which is within the administrative structure of the Securities and Exchange Commission (SEC).

Prior to the passage of this act, the accounting profession policed itself through entities of the national association of CPAs, the American Institute of CPAs (AICPA): the Auditing Standards Board, the Ethics Committee, and the peer review process. These entities are still in place, but now the AICPA has jurisdiction only over private businesses that are not under the jurisdiction of the federal securities laws and the SEC. CPA firms that audit both private

and public companies now have two bosses, one for their private business clients and one for their public business clients.



The PCAOB has ruled that many consulting and other services that CPA firms used to provide to their audit clients are now out of bounds. The firms can offer these services to public businesses that they don't audit, but not to their audit clients. The thinking is that the auditor cannot be truly independent if the firm also derives substantial revenue from selling non-audit services to the same client that it audits. (In the past, many people criticized these conflicts of interest.)

The role, authority, and responsibilities of *audit committees* of public businesses have also become more prominent in recent years. An audit committee is a subcommittee of the board of directors of a business corporation. Audit committee members now must be *outside* directors, meaning they have no management position in the business. Outside directors are often considered more independent, more objective, and more willing to challenge the executives of the business on serious issues facing the business. The audit committee works closely with the independent CPA auditor on any issues and problems that come up during the audit.

Part V

The Part of Tens

The 5th Wave

By Rich Tennant



"Our goal is to maximize your upside and minimize your downside while we protect our own backside."

In this part . . .

This part contains two shorter chapters: the first directed to business managers, and the second directed to business investors and other outside readers of financial reports. The first chapter presents ten tips for business managers to help them get the most bang for the buck out of their accounting system; these ten topics constitute a compact accounting tool kit for managers. The second chapter offers investors ten tips regarding what they should keep in mind and what to look for when reading a financial report — to gain the maximum amount of information in the minimum amount of time.

Chapter 16

Ten Accounting Tips for Managers

In This Chapter

- ▶ Getting a grip on profit analytics
 - ▶ Putting your finger on the pulse of cash flow
 - ▶ Taking charge of your business's accounting policies
 - ▶ Using sensible budgeting techniques
 - ▶ Getting the accounting information you need
 - ▶ Knowing how to talk about your financial statements
-

Financially speaking, business managers have three jobs:

- ✓ Earn adequate profit consistently
- ✓ Generate cash flow from profit
- ✓ Control the financial condition of the business

How can accounting help make you a better business manager? That's the bottom-line question, and the bottom line is the best place to start. Accounting provides the financial information you need for making good profit decisions — and it stops you from plunging ahead with gut-level decisions that feel right but don't hold water after due-diligent analysis. Accounting also provides cash flow and financial condition information you need. But in order for accounting information to do all these wonderful things, you have to understand and know how to interpret it.

Reach Break-Even, and Then Rake in Profit

Almost every business has *fixed costs*: costs that are locked in for the year and remain the same whether annual sales are at 100 percent or below half your capacity. Fixed costs are a dead weight on a business. To make profit,

you have to get over your fixed costs hurdle. How do you do this? Obviously, you have to make sales. Each sale brings in a certain amount of *margin*, which equals the revenue minus the variable expenses of the sale.

Say you sell a product for \$100. Your purchase (or manufacturing) cost is \$60, which accountants call the *cost of goods sold expense*. Your variable costs of selling the item add up to \$15, including sales commission and delivery cost. Thus, your margin on the sale is \$25: \$100 sales price – \$60 product cost – \$15 variable costs = \$25 margin. (Margin is before interest and income tax expenses.)

Your annual fixed operating costs total \$2.5 million. These costs provide the space, facilities, and people that are necessary to make sales and earn profit. Of course, the risk is that your sales will not be enough to overcome your fixed costs. This leads to the next step, which is to determine your break-even point. *Break-even* refers to the sales revenue you need just to recoup your fixed operating costs. If you earn 25 percent average margin on sales, in order to break even you need \$10 million in annual sales: \$10 million \times 25 percent margin = \$2.5 million margin. At this sales level, margin equals fixed costs and your profit is zero (you break even). Not very exciting so far, is it? But from here on it gets much more interesting.



Until sales reach \$10 million, you're in the loss zone. After you cross over the break-even point, you enter the profit zone. Suppose your annual sales revenue is \$16 million, or \$6 million over your break-even point. Your profit (earnings before interest and income tax) is \$1.5 million (\$6 million sales over break-even \times 25 percent margin ratio = \$1.5 million profit). After you cross over the break-even threshold, your entire margin goes toward profit; each additional \$100 sale generates \$25 profit. Suppose, for example, that you had made \$1 million in additional sales. You would earn \$250,000 more profit — an increase of 16.7 percent over the profit earned on \$16 million sales revenue.

Set Sales Prices Right



In real estate, the three most important profit factors are location, location, and location. In the business of selling products and services, the three most important factors are margin, margin, and margin. Of course a business manager should control expenses — that goes without saying. But the secret to making profit is making sales *and* earning an adequate margin on them. (Remember, margin equals sales price less all variable costs of the sale.) Chapter 9 explains that internal P&L reports to managers should clearly separate variable and fixed costs so the manager can focus on margin.

In the example in the previous section, your sales prices earn 25 percent margin on sales. In other words, \$100 of sales revenue generates \$25 margin (after deducting the cost of product sold and variable costs of making the sale). Therefore, \$16 million in sales revenue generates \$4 million margin. The \$4 million margin covers your \$2.5 million in fixed costs and provides \$1.5 million of profit (before interest and income tax).



An alternative scenario illustrates the importance of setting sales prices high enough to earn an adequate margin. Instead of the sales prices in the previous example, suppose you had set sales prices 5 percent lower. Therefore, your margin would be 5 percent lower per \$100 of sales. Instead of 25 percent margin on sales, you would earn only 20 percent margin on sales. How badly would the lower margin ratio hurt profit?

On \$16 million annual sales, your margin would be \$3.2 million ($\$16 \text{ million sales} \times 20 \text{ percent margin ratio} = \$3.2 \text{ million margin}$). Deducting \$2.5 million fixed costs for the year leaves only \$700,000 profit. Compared with your \$1.5 million profit at the 25 percent margin ratio, the \$700,000 profit at the lower sales prices is less than half. The moral of this story is that a 5 percent lower sales price causes 53 percent lower profit!

Distinguish Profit from Cash Flow



To find out whether you made a profit or had a loss for the year, you look at the bottom line in your P&L report. But you must understand that the bottom line does *not* tell you cash flow from your profit-making activities. Profit does not equal cash flow. Don't ever assume that making profit increases cash the same amount. Making such an assumption reveals that you're a rank amateur. Cash flow can be considerably higher than bottom-line profit, or considerably lower. Cash flow can be negative even when you earn a profit, and cash flow can be positive even when you have a loss. There's no natural correlation between profit and cash flow. If I know one of the numbers, I don't have a clue about the other.

Figure 16-1 shows an example I designed to illustrate the differences between sales revenue and expenses (the accounting numbers used to measure profit) and the cash flows of the sales and expenses. Only three expenses are shown: cost of goods sold, depreciation, and one total amount for all other expenses. (**Note:** Reporting expenses this way is not adequate for managers in a P&L report and is not acceptable for income statements in an external financial report.)

Figure 16-1:

	P&L Report	Cash Flows	Differences
Comparing sales and expenses and their cash flows.			
Sales revenue	\$5,000,000	\$4,900,000	(\$100,000)
Cost of goods sold expense	(\$3,000,000)	(\$3,225,000)	(\$225,000)
Depreciation expense	(\$100,000)	\$0	\$100,000
All other expenses	(\$1,600,000)	(\$1,435,000)	\$165,000
Bottom line	<u>\$300,000</u>	<u>\$240,000</u>	<u>(\$60,000)</u>

Here are the reasons for the cash flow differences in Figure 16-1:

- ✔ Your accounts receivable (from credit sales) increased \$100,000 during the year, so actual cash collections from customers were only \$4.9 million during the year — a cash flow shortfall of \$100,000.
- ✔ You built up your inventory \$225,000 during the year, so your cash outlays for products were \$225,000 higher than the cost of goods sold expense for the year.
- ✔ Depreciation expense is not a cash outlay in the period recorded; the cash outlay took place when the fixed assets being depreciated were acquired some years ago.
- ✔ Total cash outlays for other expenses were \$165,000 lower than the amount of expenses recorded in the year, mainly because your accounts payable and accrued expenses payable liabilities increased during the year — you had not paid this amount of expenses by year-end.



Every situation is different, of course. I don't mean to suggest that cash flow is always lower than profit for the year. Suppose accounts receivable had remained flat during the year; your cash flow would have been \$100,000 higher. If you had not built up your inventory, then . . . you get the picture. You must keep close tabs on the changes in the assets and liabilities that impact cash flow from profit. See Chapter 6 for more details.

Call the Shots on Accounting Policies

You may have heard the adage that war is too important to be left to the generals. Well, accounting is too important to be left to the accountants — especially when choosing which accounting methods to use. I'm oversimplifying, but measuring profit and putting values on assets and liabilities boils down to choosing between conservative accounting methods and more liberal (or aggressive) methods. Conservative methods record profit later rather than sooner; liberal methods record profit sooner rather than later. It's a "pay me now or pay me later" choice. (Chapter 7 gives you the details on accounting methods.)



I encourage you to get involved in setting your company's accounting policies. Business managers should take charge of accounting decisions just like they take charge of marketing and other key activities of the business. Some business managers defer to their accountants in choosing accounting methods for measuring sales revenue and expenses. Don't! You should get involved in making these decisions. The best accounting method is the one that best fits the operating methods and strategic plan of your business. As the manager, you know the business's operations and strategy better than your accountant.



Many businesses choose conservative accounting methods to defer paying their income tax. Keep in mind that higher expense deductions in early years cause lower deductions in later years. Also, conservative, income tax-driven accounting methods make the inventory and fixed assets in your balance sheet look anemic. Recording higher cost of goods sold expense takes more out of inventory, and recording higher depreciation expense causes the book value of your fixed assets to be lower. Nevertheless, you may decide that deferring the payment of income taxes is worth it, in order to keep your hands on the cash as long as possible.

Budget Wisely

Many people hear the word “budgeting” and think of a budgeting *system* — involving many persons, detailed forecasting, negotiating over goals and objectives, and page after page of detailed accounting statements that commit everyone to certain performance benchmarks for the coming period. In reality, all kinds of budgeting methods and approaches exist. You don't have to budget like IBM or a large business organization. You can do one-person limited-purpose budgeting. Even small-scale budgeting can pay handsome dividends.

I explain in Chapter 10 the reasons for budgeting — first, for understanding the profit dynamics and financial structure of your business and, second, for planning for changes in the coming period. Budgeting forces you to focus on the factors for improving profit and cash flow. It's always a good idea to look ahead to the coming year; if nothing else, at least plug the numbers in your profit report for sales volume, sales prices, product costs, and other expenses, and see how your projected profit looks for the coming year. It may not look too good, in which case you need to plan how you will do better.

The profit budget, in turn, lays the foundation for changes in your assets and liabilities that are driven by sales revenue and expenses. Your profit budget should dovetail with your assets and liabilities budget and with your cash flow

budget. This information is very helpful in planning for the coming year — focusing in particular on how much cash flow from profit will be realized and how much capital expenditures will be required, which in turn lead to how much additional capital you have to raise and how much cash distribution from profit you will be able to make.

Get the Accounting Information You Need

Experienced business managers can tell you that they spend a good deal of time dealing with problems because things don't always go according to plan. Murphy's Law (if something can go wrong, it will, and usually at the worst possible time) is all too true. To solve a problem, you first have to know that you have one. Managers need to get on top of problems as soon as possible. A well-designed accounting system should set off alarms about any problems that are developing, so you can nip them in the bud.

You should identify the handful of critical factors that you need to keep a close eye on. Insist that your internal accounting reports highlight these factors. Only you, the business manager, can identify the most important numbers that you must closely watch to know how things are going. Your accountant can't read your mind. If your regular accounting reports do not include the exact types of information you need, sit down with your accountant and spell out in detail what you want to know. Don't take no for an answer. Don't let your accountant argue that the computer doesn't keep track of this information. Computers can be programmed to spit out any type of information you want.



Here are accounting information variables that should *always* be on your radar:

- ✓ Sales volumes
- ✓ Margins
- ✓ Fixed expenses
- ✓ Overdue accounts receivable
- ✓ Slow-moving inventory items

Experience is the best teacher. Over time, you discover which financial factors are the most important to highlight in your internal accounting reports. The trick is to make sure that your accountant provides this information.

Tap into Your CPA's Expertise

As you know, a CPA will perform an audit of your financial report (see Chapter 15). And the CPA will assist in preparing your income tax returns. In doing the audit, your CPA may find serious problems with your accounting methods and call these to your attention. Also, the CPA auditor will point out any serious deficiencies in your internal controls (see the next section). And, it goes without saying that your CPA can give you valuable income tax advice and guide you through the labyrinth of federal and state income tax laws and regulations.

You should also consider taking advantage of other services a CPA has to offer. A CPA can help you select, implement, and update a computer-based accounting system and can give expert advice on many accounting issues such as cost allocation methods. A CPA can do a critical analysis of the internal accounting reports to managers in your business and suggest improvements in these reports. A CPA has experience with a wide range of businesses and can recommend best practices for your business. If necessary, the CPA can serve as an expert witness on your behalf in lawsuits. A CPA may be accredited in the areas of business valuation and financial advising.



You have to be careful that the consulting services provided by your CPA do not conflict with the CPA's independence required for auditing your financial report. If there is a conflict, you should use one CPA for auditing your financial report and another CPA for consulting services.

Critically Review Your Fraud Controls

Every business faces threats from fraud — from within and from without. Your knee-jerk reaction may be that fraud couldn't possibly be going on under your nose in your own business. I once discussed fraud with a man who served hard time in the Nebraska State Penitentiary for embezzling over \$300,000 from his employer. He said that such a cocky attitude by a business manager presents the perfect opportunity for getting away with fraud (although he tripped up, obviously).



Without you knowing about it, your purchasing manager may be accepting kickbacks or other “gratuities.” Your long-time bookkeeper may be embezzling. One of your suppliers may be short-counting you on deliveries. I'm not suggesting that you should invest as much time and money in preventing fraud and cheating against your business as do Las Vegas casinos. But every now and then you should take a hard look at whether your fraud controls are adequate.

Preventing fraud starts with establishing and enforcing good internal controls, which I discuss in Chapter 3. In the course of auditing your financial report, the CPA evaluates your internal controls. The CPA will report to you any serious deficiencies. Even with good internal controls and having regular audits, you should consider calling in an expert to assess your vulnerability to fraud and to determine whether there is evidence of any fraud going on.



A CPA may not be the best person to test for fraud — even if the CPA has fraud training and forensic credentials. A private detective may be better for this sort of investigation because he has more experience dealing with crooks and digging out sources of information that are beyond what a CPA customarily uses. For example, a private detective may install secret monitoring equipment or even spy on your employees' private lives. I understand if you think that you'd never be willing to go so far to defend yourself against fraud, but consider this: Someone committing fraud against your business has no such compunctions.

Lend a Hand in Preparing Your Financial Reports

Many business managers look at preparing the annual financial report of the business like they look at its annual income tax return — it's a task best left to the accountant. This is a mistake. You should take an active part in preparing the annual financial report. (I discuss getting the financial report ready for release in Chapter 12.) You should carefully think of what to say in the letter to stockholders that accompanies the financial statements. You should help craft the footnotes to the financial statements. The annual report is a good opportunity to tell a compelling story about the business.

The president or chief executive of the business has the ultimate responsibility for the financial report. Of course your financial report should not be fraudulent and deliberately misleading; if it is you can, and probably will, be sued. But beyond that, lenders and investors appreciate a frank and honest discussion of how the business did, including its problems as well as its successes.



In my view, the gold standard for financial reports is set by Warren Buffett, the CEO of Berkshire Hathaway. He lays it on the line; if he has a bad year, he makes no excuses. Buffett is appropriately modest if he has a good year. Every annual report of Berkshire Hathaway summarizes the nature of the business and how it makes profit. If you knew nothing about this business, you could learn what you need to know from its annual report. (Go to www.berkshirehathaway.com to get its latest annual report.)

Sound Like a Pro in Talking about Your Financial Statements

On many occasions, a business manager has to discuss her financial statements with others. You should come across as very knowledgeable and be very persuasive in what you say. These occasions include

- ✔ **Applying for a loan:** The loan officer may ask specific questions about your accounting methods and items in your financial statements.
- ✔ **Talking with individuals or other businesses that may be interested in buying your business:** They may have questions about the recorded values of your assets and liabilities.
- ✔ **Dealing with the press:** Large corporations are used to talking with the media, but even smaller businesses are profiled in local news stories.
- ✔ **Dealing with unions or other employee groups in setting wages and benefit packages:** They may think that your profits are very high so you can afford to increase wages and benefits.
- ✔ **Explaining the profit-sharing plan to your employees:** They may take a close interest in how profit is determined.
- ✔ **Putting a value on an ownership interest for divorce or estate tax purposes:** These values are based on the financial statements of the business (and other factors).
- ✔ **Reporting financial statement data to national trade associations:** Trade associations collect financial information from their members. You should make sure that you're reporting the financial information consistently with the definitions used in the industry.
- ✔ **Presenting the annual financial report before the annual meeting of owners:** The shareowners may ask penetrating questions and expect you to be very familiar with the financial statements.

Chapter 17

Ten Tips for Reading a Financial Report

In This Chapter

- ▶ Judging profit performance
 - ▶ Bumping into extraordinary gains and losses
 - ▶ Comparing cash flow with profit
 - ▶ Looking for signs of financial distress
 - ▶ Recognizing the limits of financial reports
-

Reading a business's financial report is like shucking an oyster: You have to know what you're doing and work to get at the meat. You need a good reason to pry into a financial report. The main reason to become informed about the financial performance and condition of a business is *because you have a stake in the business*. The financial success or failure of the business makes a difference to you.

Shareowners have a major stake in a business, of course. The lenders of a business also have a stake, which can be major. Shareowners and lenders are the two main audiences of a financial report. But others also have a financial stake in a business. For example, my books are published by John Wiley & Sons (a public company), so I look at its financial report to gain comfort that my royalties will be paid.

In this chapter, I offer practical tips to help investors, lenders, or anyone who has a financial stake in a business glean important insights from its financial reports.

Get in the Right Frame of Mind

So often I hear non-accountants say that they don't read financial reports because they are not "numbers" people. You don't have to be a math wizard

or rocket scientist to extract the essential points from a financial report. I know that you can find the bottom line in the income statement and compare this profit number with other relevant numbers in the financial statements. You can read the balance of cash in the balance sheet. If the business has a zero or near-zero cash balance, you know that this is a serious — perhaps fatal — problem.

Therefore, my first bit of advice is to get in the right frame of mind. Don't let a financial report bamboozle you. Locate the income statement, find bottom-line profit (or loss!), and get going. You can do it — especially having a book like this one to help you along.

Sorting out financial report readers

Shareowners and lenders have a direct stake in a business, of course. Quite clearly, they have important reasons to keep up with the information in its financial reports. In fact, they may have a duty to read its financial reports (such as the bank officer in charge of loans to the business, and investment managers of a mutual fund owning stock shares in the business). But many other people have a stake in a business and should consider looking in its financial reports. Consider the following examples:

- ✔ Employee retirement benefits depend on whether the business is fully funding its plans; employees should read the footnote discussing this issue (assuming the financial report is available to them).
- ✔ If you plan to make a large deposit on a new condo with a real estate developer, you should ask to look at its balance sheet to see whether the business is in financial trouble before you sign on the dotted line.
- ✔ People suing a business should focus on the items in the financial report that support their lawsuit against the business (such as misleading footnotes, for example).
- ✔ My wife and I are considering moving into a retirement community that requires a very large non-refundable entrance fee; believe me, I want to see its financial report first.
- ✔ If you belong to a homeowners' association, you should review its financial statements to spot any serious problems.
- ✔ I read the annual financial report of my retirement fund manager closely because most of my retirement savings are in the hands of this organization (TIAA-CREF, in case you're interested).
- ✔ I shop regularly at Costco (a public company), so I glance at its financial report to check whether my annual membership fee is a good move.

Decide What to Read

Suppose you own stock shares in a public corporation and want to keep informed about its performance. You could depend on articles and news items in *The Wall Street Journal*, *The New York Times*, *Barron's*, and so on that summarize the latest financial reports of the company. This saves you the time and trouble of reading the reports yourself. Generally, these brief articles capture the most important points. If you own an investment portfolio of many different stocks, reading news articles that summarize the financial reports of the companies is not a bad approach. But suppose you want more financial information than you can get in news articles?

The annual financial reports of public companies contain lots of information: a letter from the chief executive, a highlights section, trend charts, financial statements, extensive footnotes to the financial statements, historical summaries, and a lot of propaganda. And you get photos of the top brass and directors, of course. (The financial reports of most private companies are significantly smaller; they contain financial statements with footnotes, and not much more.)

So, how much of the report do you actually read?

You could read just the highlights section and let it go at that. This might do in a pinch. I think you should read the chief executive's letter to shareowners as well. Ideally, the letter summarizes in an evenhanded and appropriately modest manner the main developments during the year. However, these letters from the top dog often are self-congratulatory and typically transfer blame for poor performance on factors beyond the control of the managers. Read them, but take these letters with a grain of salt.



Many public businesses send shareowners a *condensed summary version* in place of their much longer and more detailed annual financial reports. This is legal, as long as the business mentions that you can get its “real” financial report by asking for a hard copy or by going to its Web site. The idea, of course, is to give shareowners an annual financial report that they can read and digest more quickly and easily.

The scaled-down, simplified, and shortened versions of annual financial reports are adequate for average stock investors. They are not adequate for serious investors and professional investment managers. These investors and money managers should read the full-fledged financial report of the business, and they may study the company's annual 10-K report that is filed with the Securities and Exchange Commission (SEC). You can go to www.sec.gov and click on Filings & Forms (EDGAR) to retrieve the 10-K of a public company.

Improve Your Accounting Savvy

Financial statements — the income statement, balance sheet, and statement of cash flows — are the hard core of a financial report. To make sense of financial statements, you need at least a rudimentary understanding of financial statement accounting. You don't have to be a CPA, but the accountants who prepare financial statements presume that you are familiar with accounting terminology and financial reporting practices. If you're an accounting illiterate, the financial statements probably look like a Sudoku puzzle. There's no way around this demand on financial report readers. After all, accounting is the language of business. (Now where have I heard that before?)

The solution? Read this book. And when you're done, consider reading another book or two about reading financial reports and analyzing financial statements. If you need a suggestion, check out another of my books, *How To Read A Financial Report*, 6th edition (Wiley).

Judge Profit Performance

A business makes profit by making sales and by keeping expenses less than sales revenue, so the best place to start in analyzing profit performance is not the bottom line but the top line: *sales revenue*. Here are some items to focus on:

- ✔ How does sales revenue in the most recent year compare with the previous year? Higher sales should lead to higher profit, unless a company's expenses increase at a higher rate than its sales revenue. If sales revenue is relatively flat from year to year, the business must focus on expense control to help profit, but a business can cut expenses only so far. The real key for improving profit is improving sales. Therefore, stock analysts put first importance on tracking sales revenue year to year.
- ✔ What is the *gross margin ratio* of the business (which equals gross profit divided by sales revenue)? Even a small slippage in its gross margin ratio can have disastrous consequences on the company's bottom line. Stock analysts would like to know the *margin* of a business, which equals sales revenue minus all variable costs of sales (product cost and other variable costs of making sales). But external income statements do not reveal margin; businesses hold back this information from the outside world.



Based on information from a company's most recent income statement (which you can find in the financials section of its Web site), how do gross margin and the company's bottom line (net income, or net earnings) compare with its top line (sales revenue)? Calculate these two ratios for a variety of businesses; you may be surprised at the variation from industry to industry. By the way, very few businesses provide profit ratios on the face of their income statements — which is curious because they know that readers of their income statements are interested in their profit ratios.

Track Profit into Earnings per Share

The bottom line for stock investors is not the bottom line. Shareowners' attention is riveted on the bottom-line profit figure, of course. But they can't stop their analysis at the bottom line. The value of a stock depends heavily on its *earnings per share (EPS)*. So stockholders should track profit into EPS to check whether changes in EPS and profit are divergent. The risk is that the profit pie may be cut up into smaller pieces. Bottom-line profit may have increased 10 percent over last year, for example, but EPS may have increased less than 10 percent. How do you like that?

Here's an example with three different scenarios. A business earned \$1.2 million net income for the year. At the start of the year it had 1 million stock shares outstanding (in the hands of its stockholders). Suppose the number of shares had remained the same during the year. In this scenario, EPS would be \$1.20. A full amount of profit goes to each stock share that was outstanding at the start of the year. Fair enough.

Alternatively, suppose the business had granted several key executives stock options during the year for 200,000 shares, and these stock options are *in the money* at the end of the year (meaning the current market value of the stock is higher than the exercise prices of the stock options). Therefore, profit is spread over 1.2 million shares, and the *diluted EPS* is only \$1.00. Market value depends on diluted EPS (see Chapter 13 for more details). In this scenario, EPS and the stock's market value are penalized. Part of the profit benefit was diverted from the original stockholders to the executives via the stock options.

In contrast, suppose that during the year the business purchased and retired 200,000 shares of its capital stock. In this situation, EPS would be \$1.50 (\$1.2 million net income ÷ 800,000 shares). Businesses with surplus cash argue that the best thing to do is to buy some of their own stock shares, which reduces the number of shares outstanding and increases EPS.



The main lesson here is that EPS, on which market value pivots, does not necessarily move in sync with the profit performance of a business. It's always a good idea to check the percent change in profit against the percent change in EPS. Public companies have to report EPS on the face of their income statements (not a bad idea for private companies as well). However, a business does not explain any divergence between its profit and EPS behavior. You have to figure this out on your own.

Confront Extraordinary Gains and Losses

Many income statements start out normally: sales revenue less the expenses of making sales and operating the business. But then there's a jarring layer of *extraordinary gains and losses* on the way down to the final profit line. (I discuss extraordinary gains and losses in Chapter 4.) In these situations, there are two bottom lines: one for profit from normal, ordinary, ongoing operations; and a second for the effect from the abnormal, extraordinary, nonrecurring gains and losses. The final profit line is the net result of the two components in the income statement. (EPS is reported before and after the unusual items.) What's a financial statement reader to do when a business reports such gains and losses?

There's no easy answer to this question. You could blithely assume that these things happen to a business only once in a blue moon and should not disrupt the business's ability to make profit on a sustainable basis. I call this the *earthquake mentality* approach: When there's an earthquake, there's a lot of damage, but most years have no tremors and go along as normal. Extraordinary gains and losses are supposed to be nonrecurring in nature and recorded infrequently, or one-time gains and losses. In actual practice, however, many businesses report these gains and losses on a regular and recurring basis — like having an earthquake every year or so.



Extraordinary losses are a particular problem because large amounts are moved out of the mainstream expenses of the business and treated as nonrecurring losses in its income statement, which means these amounts do not pass through the regular expense accounts of the business. Profit from continuing operations is reported at higher amounts than it would be if the so-called extraordinary losses were treated as regular operating expenses. Unfortunately, CPA auditors tend to tolerate this abuse. Investment managers complain in public about this practice. But in private they seem to prefer that businesses have the latitude to maximize their reported earnings from continuing operations by passing off some expenses as extraordinary losses.

Compare Cash Flow and Profit

The objective of a business is not simply to make profit, but to generate cash flow from making profit as quickly as possible. Cash flow from making profit is the most important stream of cash inflow to a business. A business could sell off some assets to generate cash, and it can borrow money or get shareowners to put more money in the business. But cash flow from making profit is the spigot that should always be turned on. A business needs this cash flow to make cash distributions from profit to shareowners, to maintain liquidity, and to supplement other sources of capital to grow the business.



The income statement does not — I repeat does *not* — report the cash inflows of sales and the cash outflows of expenses. Therefore, the bottom line of the income statement is not a cash flow number. The net cash flow from the profit-making activities of the business (its sales and expenses) is reported in the statement of cash flows. When you look there, you will undoubtedly discover that the *cash flow from operating activities* (the official term for cash flow from profit-making activities) is higher or lower than the bottom-line profit number in the income statement. I explain the reasons for the difference in Chapter 6.

Businesses seldom offer any explanation of the difference between profit and cash flow. What you see in the statement of cash flows is all you get — no more. You're pretty much on your own to interpret the difference. There are no general benchmarks or ratios for testing cash flow against profit. I couldn't possibly suggest that cash flow should normally be 120 percent of bottom-line profit, or some other ratio. There is one rough rule: Growth penalizes cash flow — or, more accurately, growth sucks up cash from sales because the business has to expand its assets to support the higher level of sales.



Cash flow from operating activities can be a very low percent of profit (or even negative). This situation should prompt questions about the company's *quality of earnings*, which refers to the credibility and soundness of its profit accounting methods. In many cases cash flow is low because accounts receivable from sales haven't been collected and because the business made large increases in its inventories. The surges in these assets raise questions about whether all the receivables will be collected and whether the entire inventory will be sold at regular prices. Only time will tell. Generally speaking, you should be more cautious and treat the net income that the business reports with some skepticism.

Look for Signs of Financial Distress

A business can build up a good sales volume and have very good profit margins, but if the company can't pay its bills on time, its profit opportunities could go down the drain. *Solvency* refers to the prospects of a business being able to meet its debt and other liability payment obligations on time. Solvency analysis asks whether a business will be able to pay its liabilities, looking for signs of financial distress that could cause serious disruptions in the business's profit-making operations. Even if a business has a couple billion bucks in the bank, you should ask: How does its solvency look?

Frankly, detailed solvency analysis of a business is best left to the pros. The credit industry has become very sophisticated in analyzing solvency. For example, bankruptcy prediction models have been developed that have proven useful. I don't think the average financial report reader should spend the time to calculate solvency ratios. For one thing, many businesses massage their accounting numbers to make their liquidity and solvency appear to be better than they are at the balance sheet date.

Although many accountants and investment analysts would view my advice here as heresy, I suggest that you just take a quick glance at the company's balance sheet. How do its total liabilities stack up against its cash, current assets, and total assets? Obviously, total liabilities should not be more than total assets. Duh! And obviously, if a company's cash balance is close to zero, things are bad. Beyond these basic rules, things are a lot more complex. Many businesses carry a debt load you wouldn't believe, and some get into trouble even though they have hefty cash balances.



The continued solvency of a business depends mainly on the ability of its managers to convince creditors to continue extending credit to the business and renewing its loans. The credibility of management is the main factor, not ratios. Creditors understand that a business can get into a temporary bind and fall behind on paying its liabilities. As a general rule, creditors are slow to pull the plug on a business. Shutting off new credit may be the worst thing lenders and other creditors could do. Doing so may put the business in a tailspin, and its creditors may end up collecting very little. Usually, it's not in their interest to force a business into bankruptcy — doing so is a last resort.

Recognize the Risks of Restatement and Fraud

In 2007, the CEO of one of the Big Four global CPA firms testified before a blue-ribbon federal government panel on the state of auditing and financial reporting. He said that one out of every ten financial reports issued by public

companies is revised and restated at a later time. If that's true, there's a 10 percent chance that the financial statements you're reading are not entirely correct and could be seriously misleading. An earlier study of financial restatements arrived at a much lower estimate. You'd think that the incidence of companies having to redo their financial reports would be extremely rare, but you see financial restatements with alarming regularity.



When a business restates its original financial report and issues a new version, it does not make restitution for any losses that investors suffered by relying on the originally reported financial statements. In fact, few companies even say they're sorry when they put out revised financial statements. Generally, the language explaining financial restatements is legalistic and exculpatory. "We didn't do anything wrong" seems to be the underlying theme. This attitude is hard to swallow.

All too often the reason for the restatement is that someone later discovered that the original financial statements were based on fraudulent accounting. As I explain in Chapter 15, CPAs don't have a very good track record for discovering financial reporting fraud. What it comes down to is this: Investors take the risk that the information in financial statements they use in making decisions is subject to revision at a later time. I suppose you could go to the trouble of searching for a business that has never had to restate its financial statements, but there's always a first time, of course.

Remember the Limits of Financial Reports

There's a lot more to investing than reading financial reports. Financial reports are an important source of information, but investors also should stay informed about general economic trends and developments, political events, business takeovers, executive changes, technological changes, and much more. Undoubtedly, the information demands required for investing have helped fuel the enormous popularity of mutual funds; investors offload the need to keep informed to the investment managers of the mutual fund. Many advertisements of financial institutions stress this point — that you have better things to do with your time.

When you read financial statements, keep in mind that these accounting reports are somewhat tentative and conditional. Accountants make many estimates and predictions in recording sales revenue and income, and expenses and losses. Some soft numbers are mixed in with hard numbers in financial statements. In short, financial statements are iffy to some extent. There's no getting around this limitation of accounting.

Having said that, let me emphasize that financial reports serve an indispensable function in any developed economy. We really couldn't get along without financial reports, despite their limits and problems. People wouldn't know which way to turn in a financial information vacuum. Even though the financial air is polluted, we need the oxygen of financial reports to breathe.

Appendix

Glossary: Slashing Through the Accounting Jargon Jungle

ABC: The acronym for *activity-based costing*, which is a cost allocation scheme that allocates the cost of support functions in an organization (such as maintenance) based on the units of activity of the support function that are used by other departments and processes in the business.

accounting: The methods and procedures for identifying, analyzing, recording, accumulating, and storing information and data about the activities of an entity that have financial results, and preparing summary reports of these activities internally for managers and externally for those entitled to receive financial reports about the entity. A business's managers, investors, and lenders depend on accounting reports called *financial statements* to make informed decisions. Accounting also encompasses preparing tax returns that must be filed with government tax authorities by the entity, and facilitating day-to-day operating functions.

accounting equation: $\text{Assets} = \text{Liabilities} + \text{Owners' Equity}$. This equation expresses the fundamental duality, or two-sided nature, of accounting and is useful for explaining *double-entry accounting*, which uses debits and credits for recording transactions. It summarizes the balance or equality of an entity's assets and the sources of its assets, which fall into two categories: liabilities and owners' equity.

accounting fraud (also called *cooking the books*): The deliberate falsification or manipulation of accounting numbers to make the profit performance and/or the financial condition of a business appear better than reality. Accounting fraud is sophisticated and even fools the CPA auditors of a business. Recent years have seen an embarrassing number of high-profile accounting fraud cases, which resulted in the establishment of a new federal regulatory agency with broad powers over public companies and the CPA auditors of public businesses: the *Public Company Accounting Oversight Board (PCAOB)*.

accounts payable: One main type of the short-term operating liabilities of a business, in which are recorded the amounts owed to vendors or suppliers for the purchase of products, supplies, parts, and services that are bought on credit. Generally these liabilities are non-interest bearing (although an interest charge may be added as a penalty for late payment).

accounts receivable: The short-term asset in which are recorded the amounts owed to the business from sales of products and services on credit to its customers. Customers are not normally charged interest, unless they do not pay their bills when due. The balance of this asset in a balance sheet is net of write-offs for uncollectible amounts (*bad debts*).

accrual-basis accounting: Recording the financial effects of economic events when they happen, as opposed to simple cash accounting. Using accrual-basis accounting, revenue is recorded when sales are made (rather than when cash is received from customers), and expenses are recorded to match with sales revenue or in the period benefited (rather than when expenses are paid). The accrual basis of accounting is seen in the recording of assets such as receivables from customers, inventory (cost of products not yet sold), and cost of long-term assets (fixed assets) — and in the recording of liabilities such as accounts payable to vendors and payables for unpaid expenses.

accrued expenses payable: The generic term for liability accounts used to record the gradual accumulation of unpaid expenses, such as vacation pay earned by employees and profit-based bonus plans that aren't paid until the following period. **Note:** The specific title of this liability varies from business to business; you may see *accrued liabilities*, *accrued expenses*, or some other similar account title.

accumulated depreciation: The total cumulative amount of depreciation expense that has been recorded since the fixed assets being depreciated were acquired. In the balance sheet, the amount in this account is deducted from the original cost of fixed assets. The balance of cost less accumulated depreciation is included in the *book value* of the fixed assets.

acid-test ratio: An alternative name for the *quick ratio*.

adjusting entries: At the end of the period, these important entries are recorded to complete the bookkeeping cycle. These end-of-period entries record certain expenses to the period (such as depreciation) and update revenue, income, expenses, and losses for the period. **Note:** This term also refers to making correcting entries when accounting errors are discovered.

amortization: The allocation of the cost of an intangible asset over its expected useful life to the business. Amortization expense is recorded on the straight-line basis (equal amounts each period).

asset turnover ratio: Annual sales revenue divided by total assets (at year-end, or the average total assets during the year).

audit report: The opinion on the financial report of a business issued by a CPA firm upon its completion of auditing the company's financial statements and footnotes. The audit report states whether the financial statements are in conformity with applicable U.S. or international financial reporting standards. A "clean opinion" means the CPA auditor has no serious disagreements with the financial report of the business.

bad debt: The expense that arises from a customer's failure to pay the amount owed to the business from a credit sale. When the credit sale was recorded, the accounts receivable asset account was increased. When it becomes clear that this debt owed to the business will not be collected, the asset is written down and the amount is charged to bad debts expense.

balance sheet: This financial statement summarizes the assets, liabilities, and owners' equity of a business at a moment in time. It's prepared at the end of every profit period and whenever else it is needed. The main elements of a balance sheet are called *accounts* — such as cash, inventory, notes payable, and capital stock. Each account has a dollar amount, which is called its *balance*. But be careful: The fact that the accounts have balances is not the reason this financial statement is called a balance sheet. Rather, the equality (or balance) of assets with the total of liabilities and owners' equity is the reason for the name. This financial statement is also called the *statement of financial condition* and the *statement of financial position*.

book value (of assets and owners' equity): Refers to the recorded amounts on the books (accounting records) of a business, which are reported in its balance sheet. Often this term is used to emphasize that the amounts recorded in the accounts of the business are less than the current replacement costs of certain assets, or less than the market value of owners' equity.

break-even: The annual sales volume or sales revenue at which total margin equals total annual fixed expenses — that is, the exact sales amount at which the business covers its fixed expenses and makes a zero profit and avoids a loss. Break-even is a useful point of reference in analyzing profit performance and the effects of making sales in excess of break-even.

capital expenditures: Outlays for fixed (long-term) assets in order to overhaul or replace old fixed assets or to expand and modernize the long-lived operating resources of a business. Fixed assets is a broad category that includes buildings, machinery, equipment, vehicles, furniture, fixtures, and computers. These operating assets have useful lives from 3 to 39 (or more) years. The term "capital" implies that substantial amounts are invested for many years.

capital stock: The ownership shares issued by a corporation for capital invested in the business by owners. Total capital is divided into units of ownership called *capital stock shares*. In the old days, you actually got engraved certificates as legal evidence of your ownership of a certain number of shares. Today, *book entry* is the norm: Your ownership is recorded in the books, or records, of the registrar for the stock shares. A business corporation must issue at least one class of capital stock, called *common stock*. It may also issue other classes of stock, such as *preferred stock*.

cash flow: An ambiguous term that can refer to several different sources of or uses of cash. Some friendly advice: Always use this term with which source or use of cash you have in mind!

cash flow from operating activities: Equals the total cash inflow from sales and other income during the period minus the total cash outflow for expenses and losses during the period. This important number is reported in the first section of the *statement of cash flows*; it is *not* found in the income statement.

certified public accountant (CPA): The CPA designation is a widely recognized and respected badge of a professional accountant. A person must meet educational and experience requirements and pass a national uniform exam to qualify for a state license to practice as a CPA. Many CPAs are not in public practice; they work for business organizations, government agencies, and nonprofit organizations, or they teach accounting (a plug for educators here if you don't mind). CPAs in public practice do audits of financial statements, and they also provide tax, management, and financial consulting services.

common stock: The one class of capital stock that must be issued by a business corporation. It has the most junior, or "last in line," claim on the business's assets in the event of liquidation, after all liabilities and any senior capital stock (such as preferred stock) are paid. Owners of common stock receive dividends from profit only after preferred stockholders (if any) are paid. Owners of common stock generally have voting rights in the election of the board of directors, although a business may issue both voting and nonvoting classes of common stock.

comprehensive income: Includes net income reported in the income statement plus certain rather technical gains and losses that are recorded but don't necessarily have to be included in the income statement. In other words, the effects of these developments can bypass the income statement. Most companies report these special types of gains and losses (if they have any) in their *statement of changes in owners' (stockholders') equity*.

controller: The chief accounting officer of an organization. The controller may also serve as the chief financial officer (CFO) in a business or other organization, although in large organizations the two jobs are usually split.

cooking the books: See *accounting fraud*. Should not be confused with the lesser offenses of *massaging the numbers* and *income smoothing*.

current assets: Includes cash plus accounts receivable, inventory, and pre-paid expenses (and short-term marketable securities if the business owns any). These assets will be converted into cash during one operating cycle or sooner, which determines the liquidity of a business.

current liabilities: Short-term liabilities, principally accounts payable, accrued expenses payable, income tax payable, short-term notes payable, and the portion of long-term debt that falls due within the coming year. This group includes both non-interest-bearing and interest-bearing liabilities that must be paid in the short term, usually defined to be one year or less.

current ratio: One test of a business's short-term solvency (debt-paying capability). Find the current ratio by dividing a business's total current assets by its total current liabilities.

debits and credits: Accounting jargon for decreases and increases recorded in accounts for assets, liabilities, owners' equity, revenue, and expenses according to the centuries' old method that is based on the *accounting equation*. In recording a transaction, the total of debits must equal the total of credits. "The books are in balance" means that the sum of debit balance accounts equals the sum of credit balance accounts. Even though the accounts are in balance, there may be errors due to other reasons.

depreciation: Allocating a fixed asset's cost over three or more years, based on its estimated useful life to the business. Each year of the asset's life is charged with part of its total cost as the asset gradually wears out and loses its economic value to the business. Either an *accelerated* depreciation method or *straight-line* depreciation is used. An accelerated method allocates more of the cost to the early years than the later years. The straight-line method allocates an equal amount to every year.

dividend yield: Measures the cash income component of return on investment in stock shares of a corporation. The dividend yield equals the most recent 12 months of cash dividends paid on a stock divided by the stock's current market price. If a stock is selling for \$100 and over the last 12 months paid \$3 cash dividends, its dividend yield equals 3 percent.

double-entry accounting: Simply put, this term means that both sides of an economic event or business transaction are recorded. For every action recorded there is a reaction that is also recorded. The *debits and credits* method is the means used to implement double-entry accounting.

earnings before interest and income tax (EBIT): Sales revenue less cost of goods sold and all operating expenses — but before deducting interest expense and income tax expense (and usually, but not always, before extraordinary gains and losses). This intermediate measure of profit also is called *operating earnings*, *operating profit*, or something similar.

earnings per share (EPS): Equals net income for the most recent 12 months reported, called the *trailing 12 months*, divided by the number of capital stock shares. Dividing net income by the actual number of shares in the hands of stockholders, called *outstanding shares*, gives *basic EPS*. *Diluted EPS* equals the same net income figure divided by the sum of the actual number of shares outstanding plus additional shares that will be issued under terms of stock options awarded to managers and for the conversion of senior securities into common stock (if the company has issued convertible debt or preferred stock securities).

EDGAR: The first name of my father-in-law. Seriously, this is the acronym for the database of financial reports and other required filings under federal securities laws with the Securities and Exchange Commission (SEC). Go to www.sec.gov and navigate to Filings & Forms (EDGAR).

extraordinary gains and losses: Unusual, nonrecurring gains and losses that happen infrequently and that are aside from the normal, ordinary sales and expenses of a business. These gains and losses, in theory, are one-time events that come out of the blue. But in actual practice many businesses record these gains and losses too frequently to be called *nonrecurring*. These gains and losses (net of income tax effects) are reported separately in the income statement. In this way, attention is directed to net income from the normal continuing operations of the business — as if the special gains and losses should be put out of mind.

Financial Accounting Standards Board (FASB): The highest authoritative, private sector, standard-setting body of the accounting profession in the United States. The FASB issues pronouncements that establish *generally accepted accounting principles (GAAP)*.

financial leverage: Generally refers to using debt capital on top of equity capital. The strategy is to earn a rate of return on assets (ROA) higher than the interest rate on borrowed money. A favorable spread between the two rates generates financial leverage gain to the benefit of net income and owners' equity.

financial reports: The periodic financially oriented communications from a business (and other types of organizations) to those entitled to know about the financial performance and position of the entity. Financial reports of businesses include three primary financial statements (balance sheet, income

statement, and statement of cash flows), as well as footnotes and other information relevant to the owners of the business. Public companies must file several types of financial reports and forms with the Securities and Exchange Commission (SEC), which are open to the public. The financial reports of private businesses are sent only to its owners and lenders.

financial statement: Generally refers to one of the three primary accounting reports of a business: the balance sheet, statement of cash flows, or income statement. Sometimes financial statements are called simply *financials*. Internal financial statements and other accounting reports to managers contain considerably more detail, which is needed for decision making and control.

financing activities: One of three basic types of cash flows reported in the statement of cash flows. These are the dealings between a business and its sources of debt and equity capital — such as borrowing and repaying debt, issuing new stock shares, buying some of its own stock shares, and paying dividends to shareowners.

first-in, first-out (FIFO): A widely used accounting method by which costs of products when they are sold are charged to cost of goods sold expense in chronological order. One result is that the most recent acquisition costs remain in the inventory asset account at the end of the period. The reverse order also is acceptable, which is called the *last-in, first-out (LIFO)* method.

fixed assets: The shorthand term for the long-life physical resources used by a business in conducting its operations, which include land, buildings, machinery, equipment, furnishings, tools, and vehicles. Please note that *fixed assets* is an informal term; the more formal term used in a balance sheet is *property, plant, and equipment*.

fixed costs: Those expenses or costs that remain unchanged over the short run and do not vary with changes in sales volume or sales revenue. Common examples are building rent under lease contracts, salaries of many employees, property taxes, and monthly utility bills. Fixed expenses provide the capacity for carrying out operations and for making sales.

footnotes: Think of footnotes in a book. Footnotes are attached to the three primary financial statements included in an external financial report, and they present detailed information that cannot be put directly in the body of one of the financial statements. Footnotes have the reputation of being difficult to read, poorly written, overly detailed, and too technical. Unfortunately, these criticisms have a lot of truth behind them.

free cash flow: Be very cautious about this term because it has no uniform meaning; different people use it to mean different things. Some people use it to mean *cash flow from operating activities* — to emphasize that this source of cash is free from the need to borrow money, issue capital stock shares, or sell assets. But this is not the only meaning you see in practice.

generally accepted accounting principles (GAAP): The authoritative standards and approved accounting methods that should be used by businesses domiciled in the United States and private nonprofit organizations to measure and report their revenue and expenses; to present their assets, liabilities, and owners' equity; and to report their cash flows in their financial statements. GAAP are not a straitjacket; these official standards are loose enough to permit alternative interpretations by accountants.

goodwill: In the broad business sense, this term generally refers to brand name recognition or to the well-known and respected reputation of a company. Goodwill in this usage means the business has an important asset that is not reported in its balance sheet. In the accounting context, however, goodwill has a more restricted meaning. To be recorded and appear in the balance sheet of a business, goodwill must actually be purchased, such as by buying an established brand name or buying a company with an excellent reputation. Only purchased goodwill is reported as an asset in the balance sheet. The cost of (purchased) goodwill may or may not be amortized (charged off to expense over the years).

gross margin (profit): Equals sales revenue less cost of goods sold for the period. Making adequate gross margin is the starting point for making a bottom-line profit.

income smoothing: Manipulating the timing of when sales revenue and/or expenses are recorded in order to produce a smoother profit trend with narrower fluctuations from year to year. Also called *massaging the numbers*, the implementation of profit-smoothing procedures needs the implicit or explicit approval of top-level managers, because these techniques require the override of normal accounting procedures for recording sales revenue and expenses. CPA auditors generally tolerate a reasonable amount of profit smoothing — which is also called *earnings management*.

income statement: This financial statement summarizes sales revenue (and income) and expenses (and losses) for a period and reports one or more profit lines. Also, any extraordinary gains and losses are reported in this financial statement. The income statement is one of the three primary financial statements of a business included in its financial report and is also called the *earnings statement*, the *operating statement*, or other similar titles.

internal (accounting) controls: Forms, procedures, and precautions that are established primarily to prevent and minimize errors and fraud (beyond the forms and procedures that are needed for record keeping). Common internal control are: requiring the signature of two managers to approve transactions over a certain amount; restricting entry and exit routes of employees; using surveillance cameras; forcing employees to take their vacations; separating duties; and conducting surprise inventory counts and inspections.

International Accounting Standards Board (IASB): The authoritative financial reporting standards-setting body for businesses outside the United

States (mainly European Union companies at the present time). The IASB issues broad, general-language standards (a “principles-based approach”), in contrast to the technically detailed pronouncements of the *Financial Accounting Standards Board (FASB)*. The two are working together toward the harmonization of accounting and financial reporting practices in the United States and the member nations of the EU.

investing activities: One of three classes of cash flows reported in the statement of cash flows. Mainly, these outlays are the major investments in long-term operating assets. A business may dispose of some of its fixed assets during the year, and proceeds from these disposals are reported in this section of the statement of cash flows.

last-in, first-out (LIFO): A widely used accounting method by which costs of products when they are sold are charged to cost of goods sold expense in reverse chronological order. One result is that the ending inventory cost value consists of the costs of the earliest goods purchased or manufactured. The actual physical flow of products seldom follows a LIFO sequence. The method is justified on the grounds that the cost of goods sold expense should reflect the cost of replacing the products sold, and the best approximations are the most recent acquisition costs.

lower of cost or market (LCM): A special accounting test applied to inventory that can result in a write-down and charge to expense for the loss in value of products held for sale. The recorded costs of products in inventory are compared with their current replacement costs (market price) and with net realizable value if normal sales prices have been reduced. If either value is lower, then recorded cost is written down to this lower value.

management (managerial) accounting: The branch of accounting that prepares internal financial statements and other accounting reports and analyses to help managers carry out their planning, decision-making, and control functions. Most of the detailed information in these reports is confidential and is not circulated outside the business. Internal profit reports focus on margin and sales volume, and they should separate variable expenses from fixed expenses. Management accounting includes budgeting, developing and using standard costs, and working closely with managers regarding how costs are allocated.

manufacturing overhead costs: Refers to those costs that are indirect and cannot be naturally matched or linked with manufacturing particular products, or even to a department or step in the production process. One example is the annual property tax on the buildings in which all the company’s manufacturing activities are carried out. Many overhead costs are fixed and cannot be decreased over the short run — such as payment for the general liability insurance carried by a business. Production overhead costs are allocated among the different products manufactured during the period in order to account for the full cost of each product. In this way, the manufacturing overhead costs are absorbed into product cost.

margin: Equals sales revenue minus cost of goods sold expense and minus all variable expenses. (In other words, margin is profit before fixed expenses are deducted.) On a per-unit basis, margin equals sales price less product cost per unit and less variable expenses per unit. Margin is an exceedingly important measure for analyzing profit behavior and in making sales price decisions.

market cap: The total value of a business calculated by multiplying the current market price of its capital stock times the total number of capital stock shares issued by the business. This calculated amount is not money that has been invested in the business, which is subject to the whims of the stock market.

massaging the numbers: See *income smoothing*. It's also called earnings management or juggling the books, and it sometimes includes the practice of *window dressing*.

net income: Equals sales revenue less all expenses for the period; also any extraordinary gains and losses for the period are counted in the calculation to get bottom-line net income. *Bottom line* means everything has been deducted from sales revenue (and other income the business may have) so that the last profit line in the income statement is the final amount of profit for the period. Instead of *net income*, you may see terms such as *net earnings*, *earnings from operations*, or just *earnings*. You do not see the term *profit* very often.

operating activities: Generally this term refers to the profit-making activities of a business — that is, the mainstream sales and expense transactions of a business.

operating liabilities: Refers to the liabilities from making purchases on credit for items and services needed in the normal, ongoing operating activities of a business. The term also includes the liabilities for the accumulation, or accrual, of unpaid expenses in order to record a full cost of the expenses for the period (such as accumulated vacation pay earned by employees that will not be taken until later).

owners' equity: The ownership capital base of a business. Owners' equity derives from two sources: investment of capital in the business by the owners (for which capital stock shares are issued by a corporation) and profit that has been earned by the business but has not been distributed to its owners (called *retained earnings* for a corporation).

pass-through tax entity: A type of legal organization that does not itself pay income tax but instead serves as a conduit of its annual taxable income. The business *passes through* its annual taxable income to its owners, who include their respective shares of the amount in their individual income tax returns.

Partnerships are pass-through tax entities by their very nature. Limited liability companies (LLCs) and corporations with 100 or fewer stockholders (called *S corporations*) can elect to be treated as pass-through tax entities.

preferred stock: A second type, or class, of capital stock that is issued by a business corporation in addition to its *common stock*. Preferred stock derives its name from the fact that it has certain preferences over the common stock: It is paid cash dividends before dividends can be paid to common stockholders; and, in the event of liquidating the business, preferred stock shares must be redeemed before any money is returned to the common stockholders. Owners of preferred stock usually do not have voting rights, and the stock may be callable by the corporation, which means that the business has to right to redeem the shares for a certain price per share.

prepaid expenses: Expenses that have been paid in advance, or up front, for future benefits. The amount of cash outlay is entered in the prepaid expenses asset account. For example, a business writes a \$60,000 check today for fire insurance coverage over the following six months. The total cost is first entered in the asset account; then, each month, \$10,000 is taken out of the asset and charged to expense. Prepaid expenses are usually much smaller than a business's inventory, accounts receivable, and cash assets.

price/earnings (P/E) ratio: The current market price of a capital stock divided by its trailing 12 months' diluted earnings per share (EPS) — or its basic earnings per share if the business does not report diluted EPS.

product cost: Equals the purchase cost of goods that are bought and then resold by retailers and wholesalers (distributors). In contrast, a manufacturer combines different types of production costs to determine product cost: direct (raw) materials, direct labor, and overhead costs.

profit: A very general term that is used with different meanings. It may mean gains minus losses, or other kinds of increases minus decreases. In business, the term means sales revenue (and other sources of income) minus expenses (and losses) for a period of time, such as one year. In an income statement, the final or bottom-line profit is most often called *net income*. For public companies, net income is put on a per-share basis, called *earnings per share*.

profit and loss (P&L) report: A popular title for internal profit performance reports to managers (that are not circulated outside the company). The term has a certain ring to it that sounds good, but if you consider it closely, how can a business have profit and loss at the same time?

property, plant, and equipment: The term generally used in balance sheets instead of *fixed assets*.

proxy statement: The annual solicitation from a corporation's top executives and board of directors to its stockholders that requests that they vote a certain way on matters that have to be put to a vote at the annual meeting of stockholders. In larger public corporations, most stockholders cannot attend the meeting in person, so they delegate a proxy (stand-in person) to vote their shares *yes* or *no* on each proposal on the agenda.

Public Company Accounting Oversight Board (PCAOB): The regulatory agency of the U.S. federal government created by the Sarbanes-Oxley Act of 2002, which was enacted in response to fallout from a number of high-profile accounting fraud scandals that the CPA auditors of the businesses failed to discover. This board has broad powers over auditors of public businesses and the public businesses themselves.

quality of earnings: A pejorative term that raises questions about the reliability of the net income reported by a business. The issue is whether the profit accounting methods of a business are correct in the circumstances, and it raises the possibility that reported profit may be overstated.

quick ratio: Calculated by dividing the total of cash, accounts receivable, and marketable securities (if any) by total current liabilities. This ratio measures the capability of a business to pay off its current short-term liabilities with its cash and near-cash assets. Note that inventory and prepaid expenses, the other two current assets, are excluded from assets in this ratio (which is also called the *acid-test ratio*.)

retained earnings: One of two basic sources of the owners' equity of a business (the other being capital invested by the owners). Annual profit (*net income*) increases this account, and distributions from profit to owners decrease the account. The balance in the retained earnings account does not refer to cash or any particular asset.

return on assets (ROA): Equals the ratio of some measure of profit divided by some measure of assets, and is expressed as a percent. **Caution:** There is no one measure of profit or total assets for calculating this ratio. Different ROA ratios have different uses. The main purpose of calculating ROA is to test whether a business is using its assets so that it can pay its cost of capital, which includes interest on its debt and a satisfactory rate of return on equity (ROE) for its owners.

return on equity (ROE): Equals net income (minus preferred stock dividends if any) divided by the book value of owners' equity (minus the amount of preferred stock) and is expressed as a percent. ROE is the basic measure of how well a business is doing in generating earnings, or return on the owners' capital investment in the business.

return on investment (ROI): A very broad and general term that refers to the income, profit, gain, or earnings on a capital investment, expressed as a percentage of the amount invested. Two relevant ROI ratios for a business are return on assets (ROA) and return on equity (ROE).

Securities and Exchange Commission (SEC): The federal agency (established by the federal Securities Exchange Act of 1934) that has jurisdiction and broad powers over the public issuance and trading of securities (stocks and bonds) by business corporations. Although it has the power to legislate accounting standards, the SEC has largely deferred to the *Financial Accounting Standards Board (FASB)*. The SEC has authority over the *Public Company Accounting Oversight Board (PCAOB)*.

solvency: Refers to the ability of a business (or other entity) to pay its liabilities on time. The current ratio and quick ratio are used to assess the short-term solvency of a business.

statement of cash flows: One of the three primary financial statements of a business, which summarizes its cash inflows and outflows during a period according to a threefold classification: cash flow from operating activities, investing activities, and financing activities.

statement of changes in owners' (stockholders') equity: More in the nature of a supplementary schedule than a full-fledged financial statement in its own right. Its purpose is to summarize the changes in the owners' equity accounts during the year, including distributing cash dividends, issuing additional stock shares, buying some of its own capital stock shares, reporting special types of technical gains and losses that are not reported in the income statement, and who knows what else.

variable costs: Costs that are sensitive to changes in sales volume or sales revenue. In contrast, *fixed costs* do not change over the short run in response to changes in sales activity.

window dressing: An accounting trick or ruse that makes the liquidity and short-term solvency of a business look better than it really was on the balance sheet date. The books are held open a few business days after the close of the accounting year in order to record additional cash receipts (as if the cash collections had occurred on the last day of the year). This term does not refer to manipulating profit (see *income smoothing*). A reasonable amount of window dressing is not viewed as accounting fraud.

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