

WILLIAM R. LASHER

PRACTICAL
FINANCIAL
MANAGEMENT

Eighth Edition



Practical Financial Management

Eighth Edition

WILLIAM R. LASHER

Nichols College



Australia • Brazil • Japan • Korea • Mexico • Singapore • Spain • United Kingdom • United States

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**Practical Financial Management,
Eighth Edition**

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*For the lights of my life,
Donna and our Amanda Noel*

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The eighth edition of *Practical Financial Management* is the latest milestone in a more than 35-year journey in education that began when I was a corporate executive teaching finance as an adjunct professor.

Not long after starting down that road, I realized that I might be able to improve on the approach taken by most finance texts. It was true then, and it's still true today, that most finance texts are harder for students to understand than they should be. The issue is relatively unique to the field. No other business discipline seems to have finance's reputation for unfathomable reading material.

I eventually came to the conclusion that the problem lies in the fact that textbook presentations are inconsistent with the background knowledge and abilities of typical business students. That isn't to say that the texts are poorly done. By and large, finance texts are good books. They're logical, well written, and comprehensive. But they're consistently off target in several key areas with respect to the students who read them.

The first problem has to do with student background. Texts tend to introduce topics using a voice that assumes the student already has some grounding in the area to be studied. Even bright students are confused and intimidated by this practice because most don't know anything about the subject when they start a chapter.

The second issue relates to quantitative material. A great deal of finance is grounded in math and statistics, so students have to take prerequisite courses in those areas. But many business students aren't really comfortable with quantitative methods even after they've had the courses. This leads to the biggest pedagogical problem we have. Textbooks assume business students are better at math than they are. As a result, most readers can't follow textbook presentations of quantitative material without an inordinate amount of time and study.

Finally, there is a troubling lack of practicality in much of this literature. For example, texts present techniques like NPV and IRR implying hair-splitting accuracy that doesn't exist in the real world, where results often depend on biased and uncertain inputs. Textbooks are also silent on the behavioral problems that financial managers deal with every day. For example, the conflict between sales and finance over receivables can tear a company apart, but it is rarely mentioned in textbooks.

The result of all this has been that finance professors don't get much help from textbooks in teaching introductory courses. We develop classroom approaches that get the ideas across, but spend a great deal of time explaining the text rather than using it to support our teaching.

Over a period of years, I developed ways around these problems that eventually evolved into *Practical Financial Management*. I began by writing expositions on subjects that gave students the most trouble, starting with time value and portfolio theory. Those explanations really worked! Time value is a good example. Students have difficulties even though they've generally seen it before. After reading my material, students would come in saying, "I never really understood time value when I had it in accounting and math, but I do now!" As you can imagine, that felt pretty good.

Fifteen years later, after serving in a number of corporate financial positions, including chief financial officer (CFO), I changed careers, becoming a full-time educator in order to pursue my first loves: teaching and writing. One of the results is *Practical Financial Management (PFM)*, now in its eighth edition. *PFM* is unique because of its approach to teaching finance. That approach is the result of a combination of classroom and practical experience. The theme is easy to summarize.

We begin every area of study by presenting the heart of the business problem or issue. We start from scratch, assuming students know nothing about the area. That's critical—we bring readers up from absolute zero so there is no confusion and they know exactly where they're going and why. Look at the beginning of Chapter 9 on portfolio theory for an example (pages 392–393). We begin the chapter by explaining why we study “risk and return” in the first place. We also define the investor's goals right away using terms beginning students can understand. After that, key theories are explained clearly and are quickly backed up with practical examples.

Next, wherever math is involved we explain the physical and business relationships between variables before developing or using equations. We discuss what each aspect of a relationship means as we put it together. That gives the equations substance and meaning to students who are less than comfortable in quantitative areas. See the development of IRR in Chapter 10 as an example (pages 452–454).

Then, when we do use math or complex procedures, we carefully explain what we're doing step by step. We assume students have the basic tools of algebra or accounting or statistics, but we don't assume they know that material well. This is another crucial point. Most students aren't really skilled in those areas. But because our systematic presentation recognizes that, students don't get lost or stuck. *PFM* is a resource students can use by themselves as well as under supervision. They can read whole chapters on their own and come to class better prepared than ever before. Look at the first pages in the development of the time value of money in Chapter 6 as an example (pages 231–233). Also see the development of the statement of cash flows in Chapter 3 for the same idea in the context of difficult accounting material rather than math (pages 75–80).

Finally, I've drawn on my years as a financial executive and CFO to present some insights into how things really work. You'll find these explanations throughout the book, identified by a “*From the CFO*” icon in the margin. A prime example deals with the problems associated with estimating cash flows for capital budgeting projects, which is found in Chapter 11 (see Example 11-3, pages 497–499—the people who propose capital projects are usually biased toward acceptance).

PFM's end-of-chapter Business Analysis exercises are another important practical feature. They are mini-cases designed to open students' eyes to the realities of applying financial principles in actual business situations. The questions at the end of Chapter 11 on cash flow estimation are good examples (pages 503–504).

Throughout, I've tried to write this book in a way that's easy to read, enjoyable, and unintimidating. The word that sums that up is “accessible.” I think I've been successful, because reviewers have been unanimous in their praise of the work's conversational style and easy readability.

Thank you for using *Practical Financial Management*. I'm absolutely sure you and your students will be pleased with the learning experience they'll have as a result.

CHANGES TO THIS EDITION

Several changes and additions have been made in the eighth edition to keep *PFM* current with new developments in financial practice and changing economic conditions. Here's a summary of the larger changes/additions.

Corporate Governance

The sections describing the Sarbanes-Oxley Act and the Financial Crisis of 2008 have been further condensed to reflect the passage of time. Coverage has been continued because of the singular importance of those events, especially the financial crisis, and the fact that their effects still linger in the financial environment.

Economic Value Added

Treatment of the EVA/MVA approach to financial analysis has been greatly expanded. The subject has been promoted from an Insights box to a full text section complete with a Concept Connection illustrative example and a related end-of-chapter problem.

Exchanges, Dark Pools, High Frequency Trading, and Regulation

The changing character of securities markets has been recognized with an expansion of the treatment of exchanges beginning with detailed descriptions of the NYSE and NASDAQ, along with BATS (Better Alternative Trading System). The discussion includes the diminishing role of exchanges, the fall from dominance of the NYSE and the rise of off exchange trading. Special attention is given to the nature and effect of dark pools and high frequency trading as well as SEC regulation.

Time Value of Money

To assist those students who have difficulty getting started with time value problems, 15 very easy problems have been inserted at the beginning of the end-of-chapter problems in Chapter 6. These problems use only annual compounding and are intended as a gentle introduction to the more difficult work ahead.

An Insights box has been added on the return of adjustable rate mortgages which had all but disappeared after playing a central role in the run up to the financial crisis.

Bonds and Leasing

Until now lease financing has been covered in an appendix to Chapter 7 on bonds. In the eighth edition, leasing has been moved into the chapter itself, eliminating the appendix. Leasing has also been added to the chapter title.

A fascinating Insights box on perpetual bonds has been added focused on the U.K.'s recent decision to pay off its World War I debt.

Securities Analysis – Behavioral Finance

For some time scholars maintained that stock market bubbles were temporary and unimportant. But recently the field of Behavioral Finance has emerged which uses psychological principles to explain how irrational behavior can be sustained in an otherwise efficient market. The eighth edition contains a concise summary of the

behavioral principle along with a few of its explanations for continuing less than rational behavior.

Capital Budgeting—Accounting Rate of Return

It is well known that operating managers are graded on financial statement performance and therefore make decisions based on accounting projections as well as cash flows. Recognizing this practical reality, the eighth edition includes a fourth capital budgeting technique, the Accounting Rate of Return (ARR). Its results can be presented along with those of payback, NPV, and IRR. The ARR evaluates the impact of proposed projects on traditional financial statement results. The treatment includes a Concept Connection example and is accompanied by an end-of-chapter problem. The superiority of cash flow based methods is emphasized.

Estimating the Optimal Capital Structure Quantitatively

Our earlier discussions of capital structure have shown that as leverage increases, an optimal capital structure is reached at which the firm's value and stock price are maximized. The eighth edition introduces a quantitative approach to locating that maximum based on the idea of a levered beta, which makes the required return on equity an increasing function of borrowing.

Distributions to Shareholders – Dividends and Repurchases

In the eighth edition our traditional focus on dividends is shifted to the more general concept of cash distributions to stockholders giving equal weight to dividends and stock repurchases. The long term trend among American companies away from dividends into stock repurchases (buybacks) is described and discussed in some detail.

Activist Investors

The eighth edition adds a major section on activist investors in the chapter on corporate restructuring. Activists are generally hedge funds that acquire 2% to 5% of a public company's stock and then agitate for changes aimed at raising its stock price. They have been remarkably successful in recent years, winning either board seats or concessions in more than 70% of their battles with corporate management and boards of directors. The treatment of activists includes a definition of what/who they are, a description of their procedures, a little about their predecessors (corporate raiders), two actual case histories, and a discussion of the pros and cons of activism with respect to corporate governance and the economy as a whole.

The Greek Financial Crisis

The eighth edition continues to follow the European debt crisis, which as of mid-2015 focuses on Greece. At this writing, Greece and its creditors have agreed to a third bailout which includes the continued imposition of financial austerity on the Greek population. This despite a referendum clearly expressing a popular preference against any program conditioned on austerity. As this book goes to print, the agreement has not yet been approved by the by the Greek parliament. Nevertheless it appears that 'Greece will continue as before, deeply in debt and burdened by austerity, but at least temporarily solvent and still in the Eurozone.

CONTINUING UNIQUE AND IMPORTANT FEATURES

The following special features have been retained from earlier editions.

Concept Connections

A pedagogical feature was added in the sixth edition called CONCEPT CONNECTIONS. The idea has been very popular with users and is being enthusiastically continued into the eighth addition. We'll describe it here for the benefit of new adopters.

Students often have trouble with end-of-chapter (EOC) problems because they're overwhelmed with new material and can't identify individual problems with the right material in the chapter. In other words, they don't know how to get started, so they give up.

CONCEPT CONNECTIONS increases learning efficiency by tying end-of-chapter (EOC) problems to the associated in-chapter examples with concept titles and page references. Wherever an EOC problem is the first in a new topic area, it is preceded by a boldfaced heading that identifies the subject, the example number within the chapter, and the page it's on. That lets students focus quickly without the frustration of searching for the right place to begin, which many don't have the patience to do.

A section at the end of Chapter 1 (page 20) explains and illustrates Concept Connections in more detail. Students should be sure to read it before doing their assignments.

From the CFO

This feature highlights material that's based on the author's experience as a CFO. These comments deal with finance in actual practice and offer tips and insights grounded in real-world experience. "From the CFO" material appears throughout the text and is identified by a logo in the margin and italicized print.

Margin Notes

PFM's summarizing margin notes are particularly complete and thorough. They provide students with a convenient summary/outline of the textual material rather than just a list of key words.

Insights: Practical Finance

PFM's Practical Finance boxes provide analysis and understanding of financial principles as applied in practice alongside textual presentations of the underlying concepts.

Insights: Ethics

Our ethics features delve into the moral dilemmas faced by financial managers every day. The issues are presented alongside relevant subject matter and focus on the ethical problems constantly in today's news.

Insights: Real Applications

The Real Applications features provide real-world examples that show how the subject matter being discussed affects large, well-known companies.

Business Analysis Exercises

A thought-provoking series of exercises has been placed at the end of each chapter. Basically qualitative in nature, Business Analysis scenarios are mini-cases that place students in delicate organizational or political situations and ask them to develop reasonable solutions.

Supplements

Practical Financial Management comes with a full set of supplements which are available on the book's companion Web site.

CengageNOW for Lasher's *Practical Financial Management*, eighth edition, is a powerful and fully integrated online teaching and learning system that provides you with flexibility and control. This digital solution offers a comprehensive set of tools to power your course. CengageNOW offers the following:

- Homework, including algorithmic variations
- Integrated ebook
- Course management tools, including a grade book

Product Support Web Site. To access this book's Web site, go to www.cengagebrain.com and search for this book by its title. There you find and instructor's manual and instructor PowerPoints, and spreadsheet software for student use.

Spreadsheet Software. *PFM* contains two types of computer problems in the end-of-chapter material. Some problems use spreadsheet templates, while others require students to create their own spreadsheet software. The templates are available on the text Web site to both students and instructors.

PowerPoint Lecture Slides. PowerPoint slides are available to instructors and are designed for classroom presentation, with many illustrative examples summarized, providing a useful lecture tool.

Instructor's Manual. The Instructor's Manual is written and maintained by the text's author. It contains chapter-by-chapter focus statements, pedagogical tips, and teaching objectives. All of the discussion questions are answered in detail, and solutions to the problems are fully worked out. The Instructor's Manual is available on the instructor's Web site, where it is password-protected for instructor use only.

Test Bank. The text author personally edits the test bank, ensuring that all questions are consistent with the text's style and notation and that all are clear, readable, and appropriate for students' abilities. It contains over 3,300 insightful questions categorized by topic area. The questions include multiple choice, true/false, fill-in, essays, and problems.

Cognero Cengage Learning Testing, powered by Cognero for Lasher's *Practical Financial Management*, eighth edition, is a flexible, online system that allows you to

author, edit, and manage test bank content from multiple Cengage Learning solutions; create multiple test versions in an instant; and deliver tests from your learning management system, your classroom, or wherever you want!

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William R. Lasher
Nichols College

Professor Lasher has a unique background that includes extensive experience as an educator and as a corporate financial executive. Prior to entering full-time academics, he worked for Texas Instruments, Harris Corporation, and the Pacific Telesis organization. During those years, he served as a corporate financial planner, a controller, and as a subsidiary CFO. While working in industry, he taught graduate and undergraduate finance and economics as an adjunct professor at the University of Dallas, the University of Texas at Dallas, and Golden Gate University in San Francisco. He moved into education full time when he joined the faculty at *Nichols College* in Massachusetts.

Professor Lasher has a B.S. and an M.B.A from Columbia University, received his Ph.D. from Southern Methodist University, holds a J.D. from the New England School of Law, and has earned a Certified Public Accountant designation. He has also published books on business planning, franchising, and the strategic management of small firms.



Introduction to Financial Management

- 1 Foundations
- 2 Financial Background: A Review of Accounting, Financial Statements, and Taxes
- 3 Cash Flows and Financial Analysis
- 4 Financial Planning
- 5 The Financial System, Corporate Governance, and Interest

Foundations

Chapter Outline

An Overview of Finance

- Financial Assets
- Financial Markets
- Raising Money
- Financial Management
- The Price of Securities—A Link Between the Firm and the Market

Finance and Accounting

- The Importance of Cash Flow
- The Language of Finance

Financial Theory—The Relationship with Economics

Forms of Business Organization and Their Financial Impact

- The Proprietorship Form
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The Goals of Management

- Stakeholders and Conflicts of Interest
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- The Agency Problem

Creditors Versus Stockholders—A Financially Important Conflict of Interest

Concept Connections

1.1 An Overview of Finance

Finance is the art and science of handling money. In the modern world, virtually every organization, public and private, runs on money. That includes families, businesses, governments, and nonprofit enterprises like colleges and churches. Money touches everything we do. And finance, the management of money, is behind most everything we see each day. We don't physically observe the financing behind a building or a new car or a house, but it's there, and without it most of the things we do see wouldn't exist.

That's because without money to pay for resources and a financial system to make trading possible, no one could organize more than a few people to work together at one time.

Our study of finance will be broadly divided into two areas: (1) investments and financial markets and (2) the financial management of companies.¹ These are separate but related. A financial system involves flows of money, paper, and electronic files between the two.

To begin our study of finance, we need a few basic terms and ideas. Let's master these before going any further.

1.1a Financial Assets

■ A **real asset** is an object that provides a service.

■ A **financial asset** is a legal document representing a claim to income.

■ **Stock** represents an **ownership** interest.

■ **Bonds** represent a **debt** relationship.

■ **Investing** involves buying financial assets in the hope of earning **income**.

■ A **mutual fund** purchases securities with the pooled resources of many investors.

A **real asset** is an object or thing, such as a car, a house, a factory, or a piece of machinery. Real assets have value because they provide services of some kind, such as transportation, shelter, or the ability to produce something.

Financial assets, on the other hand, are legal documents, pieces of paper. Their value comes from the fact that they give their owners claim to certain future cash flows. Most financial assets are either stocks or bonds, and their claim to future income is based on ownership or debt, respectively.

Stock ownership means that the holder of a share owns a piece of the company that issued the stock. As a part owner, he or she is entitled to a share of the firm's profits, which may be paid out in dividends or retained to enhance prospects for growth. The shareholder generally expects to sell the share at some time in the future and will then receive the proceeds of that sale in cash. Thus, the owner of a stock certificate can look for two sources of cash in the future: dividends and the eventual selling price of the share.

A **bond** signifies a debt relationship. When a person buys a bond, he or she is actually lending money to the firm issuing that bond. The terminology seems strange—"buying a bond" meaning "lending money." Nevertheless, a bondholder is actually a lender and as such is entitled to interest on the amount lent and the repayment of principal at the end of the loan period.

Companies issue financial assets to raise money. They generally use that money to buy real assets that are used in running their businesses.

Financial assets are purchased by people or other companies to earn income with funds they don't currently need. Buying such an asset is similar to opening a savings account and receiving interest on the money you've put in the bank. In fact, a savings account is another kind of financial asset. Another name for a financial asset like a stock or a bond is a **security**.² A person or organization buying a financial asset is said to be **investing** in that asset, and we generally call that buyer an *investor*.

Investments in financial assets can be made directly by buying securities or indirectly by buying shares in a **mutual fund**. A mutual fund pools the contributions of many investors and employs a professional manager to select securities that match a particular set of investment goals. Investors then own shares of the fund rather than individual securities.

1. The banking system, a third sector of the financial world, is generally covered in an economics course on "Money and Banking" or "Financial Institutions."

2. Securities are financial assets that can be traded among investors. Hence stocks and bonds are securities while savings accounts are not.

1.1b Financial Markets

Securities are traded in **financial markets** like the **stock market**.

Stocks and bonds as well as certain other kinds of financial assets are issued by companies and purchased by investors in *financial markets*. A **financial market** isn't exactly a place; rather, it's a framework or organization in which people can buy and sell securities in accordance with well-defined rules and regulations. The best known financial market is the **stock market**. It is centered in several places around the country, called **stock exchanges**. The best known exchange is the New York Stock Exchange, often referred to as the NYSE.

A **stockbroker** is licensed to trade securities on behalf of investors.

To participate in the market, you don't have to go to an exchange. You simply establish a relationship with a *stockbroker* in your area and communicate with him or her by phone. A **stockbroker** is a person who is licensed to help investors buy and sell securities for a commission. Local brokers are connected to the various exchanges electronically. The stock market is really the entire network of brokers and exchanges all connected together. Bond markets for trading debt securities operate similarly.

In summary, financial markets are "places" where investors buy financial assets from companies that issue them. Investors also buy and sell the same financial assets among themselves in the same financial markets. In fact, the vast majority of transactions are among investors. That's because a security is issued by a company only once, but it may be traded among investors many times thereafter.

In practice, the term "market" describes the combined actions of investors acting within the marketplace just described. For example, someone might say that the market has placed a price of \$50 on a share of Microsoft stock. That would mean the going price among investors buying and selling the stock of the Microsoft corporation within the structure of the stock market is about \$50.

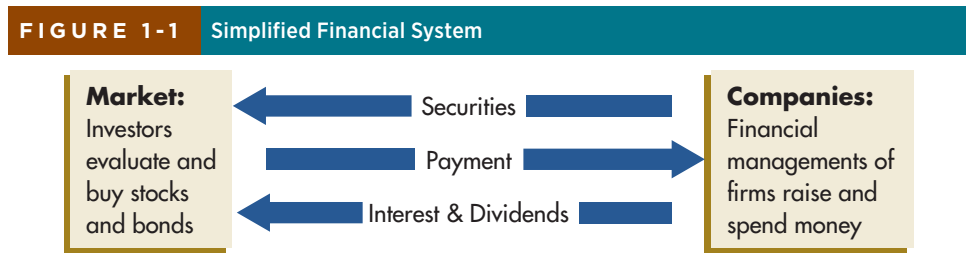
Figure 1-1 is a schematic representation of the interaction between companies and the market.

The field of investments involves making decisions about buying and selling stocks and bonds. Decisions about how to raise money and what to do with it are part of the financial management of a firm. These decisions are made on the two sides of Figure 1-1, which represent the two areas in which our study will be focused.

Now let's consider the word "finance" itself. Its use can be a little confusing. It's a noun, as in "the field of finance." It's a verb, as in "to finance something." And it also has an adjective form, as in "financial management." Let's explore these variations in meaning.

1.1c Raising Money

The most common application of the term "finance" involves raising money to acquire assets. We've all heard people say they're going to *finance* a car or a house.



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When they say that, individuals usually mean they're going to borrow money from a bank to buy the item. We can also talk about financing activities like starting a new business or going on vacation.

The word is used similarly in business. Companies *finance assets* when they raise money to acquire those assets. They do that by borrowing, selling stock, or using money they've earned. In recent years, many assets have been acquired through leasing. We say those items are *lease financed*.

A company itself is *financed* when money is raised to get it started or for expansion. Such money can come from borrowing or from selling stock. To the extent the money is borrowed, we say the company is *debt financed*. To the extent it comes from selling stock, we say the firm is *equity financed*. Equity implies financing with an owner's own money.

Looking at Figure 1-1, we see that firms in the box on the right are raising money, financing things. They do that by selling stocks and bonds to investors in the box on the left. The *field of finance* includes both sides of this money-raising transaction. It relates to the concerns of parties raising money and to those of parties providing it. Further, because the money raised flows through financial markets and institutions, their operation is a part of the field as well.

The Changing Focus of Finance Historically, the field of finance was narrowly limited to activity within financial markets. Today, the perspective has expanded in two directions.

First, in modern finance a great deal of attention is given to the goals and activities of the investor. In the early days, a complete description of a particular security (stock or bond) was considered to be all an investor needed to comfortably make a decision about buying it. Today we've become concerned with the notion of risk in investing and with how investors put together groups of securities called **portfolios** to minimize that risk. We'll examine these concepts at length in Chapter 9.

The second direction of expansion involves the role and function of financial management within firms. Historically, financial managers were told how much money their companies needed for particular projects, and they went outside in pursuit of those funds. They had little to do with deciding how much was needed or what was done with the money after it was raised. Today, financial managers are deeply involved in those related decisions.

1.1d Financial Management

Financial management means the management and control of money and money-related operations within businesses. Companies have finance departments that are responsible for these functions.

The executive in charge of the finance department is the company's **chief financial officer**, abbreviated **CFO**. The title **vice president of finance** is sometimes used instead of CFO. In either case, the position usually reports to the president of the company.

The term "financial management" refers to the things the CFO and the finance department do. These activities include, among other things, keeping records, paying employees and suppliers, receiving customer payments, borrowing money, purchasing assets, selling stock, and paying dividends.

■ **Financing** means raising money to acquire or to do something.

■ A **portfolio** is a collection of securities.

■ The corporate executive in charge of the finance department is called the **chief financial officer (CFO)**.

It's important to notice that accounting is included in this broad definition of finance and that the accounting function is usually part of the finance department, reporting to the CFO.

Business Decisions Financial management also refers to the financial input that goes into general business decisions. This extremely important concept is best explained by an example.

Suppose a domestic company is contemplating expanding overseas. That's likely to be a big decision discussed by the firm's key executives over a long period of time. Each executive will have opinions and recommendations related to his or her own area of responsibility, such as marketing or manufacturing. The CFO will similarly have opinions on how to set up the finance function in the new venture, how to do its accounting, and what banks to use. In addition, he or she will probably have to secure funding to support the project, either from a bank or by issuing securities.

Beyond that, however, the CFO must form a judgment about the feasibility of the project in terms of whether it will be profitable enough to justify its own cost. In other words, the bottom line for most projects is money, and the responsibility for assessing that bottom line falls to financial management. (We'll study the techniques used to make this kind of decision, called capital budgeting, in Chapters 10, 11, and 12.)

Oversight Another important aspect of financial management involves the relationship between finance and other departments in the day-to-day management of the firm. It's important to grasp the fact that finance is responsible for its own activities, but it has a responsibility for the operation of other departments as well.

Let's look into that idea a little more deeply. Finance is responsible for money, but other departments deal in money, too. That's because they have to spend it to do their jobs, and their success is defined in terms of money. For example, manufacturing's task may be to produce some quantity of product, but doing the job properly involves keeping costs low and maintaining a reasonable level of inventory.

The finance department generally has an *oversight responsibility* for the effective management of the money other departments spend. Hence, if manufacturing's costs are too high or if it carries too much inventory, finance is responsible for calling attention to those facts and ensuring that corrective action is taken. In other words, *part of finance's job involves looking over everyone else's shoulder to make sure they're using money effectively.*

The finance department **oversees** how other departments spend money.

optimarc/Shutterstock.com



1.1e The Price of Securities—A Link Between the Firm and the Market

The two sides of finance, investments and the financial management of the firm, are connected by the fact that companies sell securities to investors in financial markets.

A fundamental truth, which we'll examine in detail later, is that investors buy securities for the future cash flows that come from owning them. Those cash flows depend on the issuing companies' financial performance. Hence, the prices investors are willing to pay for securities depend on their expectations about how well the issuing companies are likely to do in the future in terms of profit. Further, because the future is never guaranteed, the market is also concerned about the risk associated with expected performance. A perception of greater risk tends to lower investor interest and security prices.

The link between company management and investments comes from this relationship between price and expected financial results. Everything firms and their managers do is watched by the market and has an impact on investors' perceptions of likely future performance and risk. Those perceptions, in turn, determine the prices of stocks and bonds.

In other words, the study of investments includes looking at the way companies are managed to estimate future performance. At the same time, the management of companies includes consideration of how business decisions are perceived by investors and the effects those perceptions have on the prices of the firm's stocks and bonds.

1.2 Finance and Accounting

In most industrial companies, the majority of the people involved in money-oriented activities are accountants, so people sometimes get the idea that accounting and finance are synonymous. In fact they're not, and it's important to understand how they fit together.

Accounting is a system of record keeping designed to portray a firm's operations to the world in a fair and unbiased way. The records are used periodically to produce financial statements that present the company's results to anyone who reads them.

However, several other financial functions are performed in most companies. These include raising money, analyzing results, and handling relationships with outsiders such as banks, shareholders, and representatives of the investment community. Most of these functions are performed by the *treasury department*.

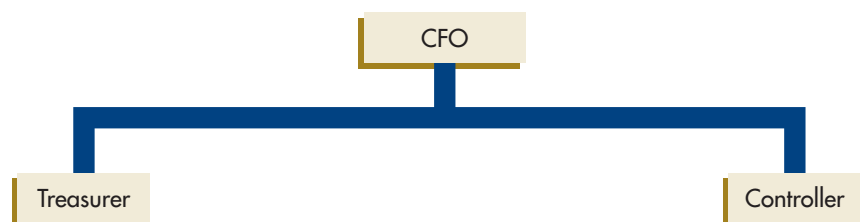
The *finance department* normally consists of both the *accounting department* headed by the **controller** and the *treasury department* headed by the **treasurer**. Both of these positions report to the *chief financial officer (CFO)*. The typical organization is depicted in Figure 1-2.

In practice, it has become common to think of accounting as an almost separate field and to refer to the other financial functions as finance. For the most part, this means that the treasury functions are called *finance* and the controller functions are called *accounting*.

People tend to have careers in one side of the department or the other, but crossover is possible. It's generally easier for an accountant to move into treasury than the other way around because of the large number of specialized courses required to be a professional accountant. Either controllers or treasurers can become CFOs.

The **controller** is in charge of accounting while the **treasurer** supervises most other financial functions.

FIGURE 1-2 Finance Department Organization



Companies are organized in different ways, and who does what isn't always clear cut. Many of the activities we'll study in this book are done in the accounting department in one company and in the treasury (finance) department in another. Activities such as financial analysis (Chapter 3), financial planning (Chapter 4), and capital budgeting (Chapters 10, 11, and 12) are generally done wherever the resources are available to do the job best.

Finance majors shouldn't be discouraged by the preponderance of accounting jobs in typical industrial companies. The majority of jobs in the investment industry and in financial institutions such as banks and insurance companies are in finance rather than accounting.

1.2a The Importance of Cash Flow

The relative emphasis placed on cash flow is important in conceptually differentiating between accounting and finance. The accounting system attempts to portray a business's financial results in a way that reflects what is physically going on. In finance we're less interested in such a representative portrayal and tend to concentrate on where cash is coming from and going to. In finance, "**cash is king**"!

In finance, **cash is king**.

This point can be made clear with a simple example. We'll consider how a typical accounting system represents the acquisition and use of a long-lived asset and contrast that with the way people in finance look at the same event.

The point behind Example 1-1 is that in finance the emphasis is on cash. We're not implying that accountants are ignorant of the cash requirements associated with the asset in the example. Their emphasis is simply different, involving a broader portrayal of the business. Finance concentrates on cash flow. We'll keep that in mind throughout our study.

CONCEPT CONNECTION

EXAMPLE 1-1

Accounting Records and Cash Flow

Suppose a firm buys a \$1,000 asset to be depreciated straight-line over five years at \$200 per year. Assume the company pays taxes at a flat rate of 40%. Contrast the accounting portrayal of the asset's life with its cash flow implications.

SOLUTION: The accounting books show the initial addition of the \$1,000 asset to a gross assets account. That's followed by yearly depreciation entries, each of which has two parts. Every year \$200 of depreciation appears on the income statement to reflect the allocation of one-fifth of the asset's original cost to expense. An addition of \$200 is also made to an accumulated depreciation account on the balance sheet, which is subtracted from the asset's original gross value to reflect the wearing out of the item. (We'll review fixed asset accounting in more detail in Chapter 2.) The first year's entries appear as follows:

Income Statement Cost/Expense Entries		Balance Sheet Fixed Assets Account	
		Gross	\$1,000
Depreciation expense	\$200	Accumulated depreciation	<u>200</u>
		Net	\$ 800

In each of the following four years another \$200 is recognized as depreciation expense and added to accumulated depreciation on the balance sheet, further reducing the net value of the asset until it reaches zero at the end of the fifth year.

In addition, the tax shown on the income statements will be lower in all five years because depreciation expense reduces profit. That means each year's income tax will be less by 40% of the \$200 depreciation expense that comes from having the item. Thinking in terms of tax savings, owning the asset implies:

$$\text{yearly tax saving} = \$200 \times .40 = \$80$$

Notice how much information this set of numbers conveys. The asset originally cost \$1,000 and results in an expense of \$200 each year that reduces profit. At the same time, the balance sheet indicates how worn out the item is by showing the portion of its original value that's left on the books. The accounting representation thus gives us a portrait of the entire life of the asset and its impact on the business in numbers!

When people in the finance department think about the same asset, their orientation is very different. They're interested in only two numbers: the \$1,000 cash outflow needed to acquire the asset and the annual tax saving generated by the depreciation deduction.

The reason for this emphasis is easy to understand. Finance is responsible for raising the initial \$1,000, and the future tax saving affects the amount of cash that will have to be raised for other things later on. In fact, a finance person might react that the accounting representation doesn't display the most important piece of financial information about the asset—where the money to buy it came from.

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1.2b The Language of Finance

The practice of finance is closely tied to accounting because financial transactions are recorded within the structure of accounting systems. It's often said that *accounting is the language of finance*. Because of this connection, all finance professionals need some knowledge of accounting. However, the level of knowledge required varies significantly depending on one's job.

A financial analyst, who investigates companies and makes recommendations about their investment value, needs to know quite a bit of accounting. That's because analysts have to decipher complex financial statements without missing any of the detailed implications that may be buried in the numbers and notes. Stockbrokers, on the other hand, generally sell securities on the basis of a broad knowledge of what's going on in various industries and expectations generated by the reports of analysts. They can get by without much more than an ability to read basic financial statements.

Accounting is the **language of finance**.

1.3 Financial Theory—The Relationship with Economics

So far we've been examining the practical side of finance and how it fits into the business world. Finance is a field in which millions of people find jobs after they've mastered certain skills that are taught in school. As in any other field, success comes