

PRINCIPLES *of*  
MANAGERIAL  
FINANCE

BRIEF

7th Edition



Lawrence J. Gitman • Chad J. Zutter

## FREQUENTLY USED SYMBOLS AND ABBREVIATIONS

AAI	Average Age of Inventory	EOQ	Economic Order Quantity
ACH	Automated Clearinghouse	EPS	Earnings per Share
ACP	Average Collection Period	ERP	Enterprise Resource Planning
$AF_j$	Amount of Funds Available from Financing Source $j$ at a Given Cost	EU	European Union
ANPV	Annualized Net Present Value	EVA	Economic Value Added
A/P	Accounts Payable	FC	Fixed Operating Cost
APP	Average Payment Period	FCF	Free Cash Flow
APR	Annual Percentage Rate	FDI	Foreign Direct Investment
APY	Annual Percentage Yield	FLM	Financial Leverage Multiplier
A/R	Accounts Receivable	FV	Future Value
$\beta_j$	Beta Coefficient or Index of Nondiversifiable Risk for Asset $j$	GAAP	Generally accepted accounting principles
$\beta_p$	Portfolio Beta	GATT	General Agreement on Tariffs and Trade
$B_0$	Value of a Bond	$g$	Growth Rate
C	Carrying Cost per Unit per Period	$I$	Interest Payment
CAPM	Capital Asset Pricing Model	$IP$	Inflation Premium
CCC	Cash Conversion Cycle	IPO	Initial Public Offering
CD	Stated Cash Discount in Percentage Terms	IRR	Internal Rate of Return
$CF_0$	Initial Investment	JIT	Just-In-Time System
$CF_t$	Cash Inflow in Period $t$	LBO	Leveraged Buyout
CV	Coefficient of Variation	$m$	Number of times per year interest is compounded
$D_p$	Preferred Stock Dividend	$M$	Bond's Par Value
$D_t$	<ul style="list-style-type: none"> <li>• Per-Share Dividend Expected at the End of Year <math>t</math></li> <li>• Depreciation Expense in Year <math>t</math></li> </ul>	M/B	Market/Book Ratio
DFL	Degree of Financial Leverage	MACRS	Modified Accelerated Cost Recovery System
DIP	Debtor in Possession	MNC	Multinational Company
DOL	Degree of Operating Leverage	MP	Market Price per Share
DPS	Dividends per Share	$MPR$	Market Price Ratio of Exchange
DTC	Depository Transfer Check	MRP	Materials Requirement Planning
DTL	Degree of Total Leverage	$n$	<ul style="list-style-type: none"> <li>• Number of Outcomes Considered</li> <li>• Number of Periods—Typically, Years</li> <li>• Years to Maturity</li> </ul>
$e$	Exponential Function = 2.7183	$N$	<ul style="list-style-type: none"> <li>• Number of Days Payment Can Be Delayed by Giving up the Cash Discount</li> <li>• Number of Shares of Common Stock Obtainable With One Warrant</li> </ul>
$E$	Exercise Price of the Warrant	$N_d$	Net Proceeds from the Sale of Debt (Bond)
EAR	Effective Annual Rate		
EBIT	Earnings Before Interest and Taxes		
EOM	End of the Month		

## FREQUENTLY USED SYMBOLS AND ABBREVIATIONS (CONTINUED)

$N_n$	Net Proceeds from the Sale of New Common Stock	$r_r$	Cost of Retained Earnings
$N_p$	Net Proceeds from the Sale of Preferred Stock	$r_s$	<ul style="list-style-type: none"> <li>• Required Return on Common Stock</li> <li>• Cost of Common Stock Equity</li> </ul>
NAFTA	North American Free Trade Agreement	$R_F$	Risk-Free Rate of Interest
NCAI	Net Current Asset Investment	RADR	Risk-Adjusted Discount Rate
NFAI	Net Fixed Asset Investment	$RE$	Ratio of Exchange
NOPAT	Net operating profits after taxes	ROA	Return on Total Assets
NPV	Net Present Value	ROE	Return on Common Equity
$O$	Order Cost Per Order	$S$	<ul style="list-style-type: none"> <li>• Usage in Units per Period</li> <li>• Sales in Dollars</li> </ul>
OC	Operating Cycle	SML	Security Market Line
OCF	Operating Cash Flow	$t$	Time
$P$	Price (value) of asset	$T$	Firm's Marginal Tax Rate
$P_0$	Value of Common Stock	TVW	Theoretical Value of a Warrant
$PBDT_t$	Profits Before Depreciation and Taxes in year $t$	$V$	<ul style="list-style-type: none"> <li>• Value of an Asset or Firm</li> <li>• Venture Capital</li> </ul>
$PD$	Preferred Stock Dividend	$V_C$	Value of Entire Company
$P/E$	Price/Earnings Ratio	$V_D$	Value of All Debt
PI	Profitability Index	$V_P$	Value of Preferred Stock
$PMT$	Amount of Payment	$V_S$	Value of Common Stock
$Pr$	Probability	VC	Variable Operating Cost per Unit
$PV$	Present Value	$w_j$	<ul style="list-style-type: none"> <li>• Proportion of the Portfolio's Total Dollar Value Represented by Asset <math>j</math></li> <li>• Proportion of a Specific Source of Financing <math>j</math> in the Firm's Capital Structure</li> </ul>
$Q$	<ul style="list-style-type: none"> <li>• Order Quantity in Units</li> <li>• Sales Quantity in Units</li> </ul>	WACC	Weighted Average Cost of Capital
$r$	<ul style="list-style-type: none"> <li>• Actual, Expected (<math>\bar{r}</math>), or Required Rate of Return</li> <li>• Annual Rate of Interest</li> <li>• Cost of Capital</li> </ul>	WTO	World Trade Organization
$r^*$	Real Rate of Interest	YTM	Yield to Maturity
$r_a$	Weighted Average Cost of Capital	ZBA	Zero Balance Account
$r_d$	<ul style="list-style-type: none"> <li>• Required Return on Bond</li> <li>• Before-Tax Cost of Debt</li> </ul>	$\sigma$	Standard Deviation
$r_i$	After-Tax Cost of Debt	$\Sigma$	Summation Sign
$r_j$	Required Return on Asset $j$		
$r_m$	<ul style="list-style-type: none"> <li>• Market Return</li> <li>• Return on the Market Portfolio of Assets</li> </ul>		
$r_p$	<ul style="list-style-type: none"> <li>• Cost of Preferred Stock</li> <li>• Portfolio Return</li> </ul>		

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Principles of

# Managerial Finance

**BRIEF**

Seventh Edition

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**PEARSON**

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*Dedicated to the memory  
of my mother, Dr. Edith Gitman,  
who instilled in me the importance  
of education and hard work.*

LJG

*Dedicated to my wonderful children,  
Logan, Henry, Evelyn, and Oliver, who provide me with  
constant commotion, fun, and affection.*

CJZ



# Our Proven Teaching and Learning System

Users of *Principles of Managerial Finance, Brief* have praised the effectiveness of the book's Teaching and Learning System, which they hail as one of its hallmarks. The system, driven by a set of carefully developed learning goals, has been retained and polished in this seventh edition. The “walkthrough” on the pages that follow illustrates and describes the key elements of the Teaching and Learning System. We encourage both students and instructors to acquaint themselves at the start of the semester with the many useful features the book offers.

The screenshot shows a textbook page with a dark red header containing the chapter title "1 The Role of Managerial Finance". Below the header, the page is divided into two columns. The left column is titled "Learning Goals" and lists six numbered items (LG 1 to LG 6) with brief descriptions of each goal. The right column is titled "Why This Chapter Matters to You" and is divided into two sub-sections: "In your professional life" and "In your personal life". Each sub-section contains several paragraphs of text explaining the relevance of the chapter's content to these aspects of a student's life. A purple arrow points from the text on the right towards the Learning Goals section.

**1 The Role of Managerial Finance**

**Learning Goals**

- LG 1** Define finance and the managerial finance function.
- LG 2** Describe the legal forms of business organization.
- LG 3** Describe the goal of the firm, and explain why maximizing the value of the firm is an appropriate goal for a business.
- LG 4** Describe how the managerial finance function is related to economics and accounting.
- LG 5** Identify the primary activities of the financial manager.
- LG 6** Describe the nature of the principal-agent relationship between the owners and managers of a corporation, and explain how various corporate governance mechanisms attempt to manage agency problems.

**Why This Chapter Matters to You**

**In your professional life**

**ACCOUNTING** You need to understand the relationships between the accounting and finance functions within the firm, how decision makers rely on the financial statements you prepare, why maximizing a firm's value is not the same as maximizing its profits, and the ethical duty you have when reporting financial results to investors and other stakeholders.

**INFORMATION SYSTEMS** You need to understand why financial information is important to managers in all functional areas, the documentation that firms must produce to comply with various regulations, and how manipulating information for personal gain can get managers into serious trouble.

**MANAGEMENT** You need to understand the various legal forms of a business organization, how to communicate the goal of the firm to employees and other stakeholders, the advantages and disadvantages of the agency relationship between a firm's managers and its owners, and how compensation systems can align or misalign the interests of managers and investors.

**MARKETING** You need to understand why increasing a firm's revenues or market share is not always a good thing, how financial managers evaluate aspects of customer relations such as cash and credit management policies, and why a firm's brands are an important part of its value to investors.

**OPERATIONS** You need to understand the financial benefits of increasing a firm's production efficiency, why maximizing profit by cutting costs may not increase the firm's value, and how managers act on behalf of investors when operating a corporation.

**In your personal life** Many of the principles of managerial finance also apply to your personal life. Learning a few simple financial principles can help you manage your own money more effectively.

2

Six **Learning Goals** at the start of the chapter highlight the most important concepts and techniques in the chapter. Students are reminded to think about the learning goals while working through the chapter by strategically placed **learning goal icons**.

Every chapter opens with a feature, titled **Why This Chapter Matters to You**, that helps motivate student interest by highlighting both professional and personal benefits from achieving the chapter learning goals.

Its first part, **In Your Professional Life**, discusses the intersection of the finance topics covered in the chapter with the concerns of other major business disciplines. It encourages students majoring in accounting, information systems, management, marketing, and operations to appreciate how financial acumen will help them achieve their professional goals.

The second part, **In Your Personal Life**, identifies topics in the chapter that will have particular application to personal finance. This feature also helps students appreciate the tasks performed in a business setting by pointing out that the tasks are not necessarily different from those that are relevant in their personal lives.

**Learning goal icons** tie chapter content to the learning goals and appear next to related text sections and again in the chapter-end summary, end-of-chapter homework materials, and supplements such as the *Study Guide*, *Test Item File*, and MyFinanceLab.

For help in study and review, boldfaced **key terms** and their definitions appear in the margin where they are first introduced. These terms are also boldfaced in the book's index and appear in the end-of-book glossary.

**Matter of Fact** boxes provide interesting empirical facts that add background and depth to the material covered in the chapter.

**Personal Finance Examples** demonstrate how students can apply managerial finance concepts, tools, and techniques to their personal financial decisions.

**Key Equations** appear in blue boxes throughout the text to help readers identify the most important mathematical relationships. The variables used in these equations are, for convenience, printed on the *front endpapers* of the book.

LG 2 LG 3 **6.2 Corporate Bonds**

**MyFinanceLab Video**

**corporate bond**  
A long-term debt instrument indicating that a corporation has borrowed a certain amount of money and promises to repay it in the future under clearly defined terms.

A corporate bond is a long-term debt instrument indicating that a corporation has borrowed a certain amount of money and promises to repay it in the future under clearly defined terms. Most bonds are issued with maturities of 10 to 30 years and with a par value, or face value, of \$1,000. The coupon interest rate on a bond represents the percentage of the bond's par value that will be paid annually, typically in two equal semiannual payments, as interest. The bondholders, who are the lenders, are promised the semiannual interest payments and, at maturity, repayment of the principal amount.

**corporation**  
An entity created by law.

**stockholders**  
The owners of a corporation, whose ownership, or equity, takes the form of common stock or, less frequently, preferred stock.

**Corporations**  
A corporation is an entity created by law. A corporation has the legal powers of an individual in that it can sue and be sued, make and be party to contracts, and acquire property in its own name. Although only about 20 percent of all U.S. businesses are incorporated, the largest businesses nearly always are; corporations account for roughly 80 percent of total business revenues. Although corporations engage in all types of businesses, manufacturing firms account for the largest portion of corporate business receipts and net profits. Table 1.1 lists the key strengths and weaknesses of corporations.

**Matter of fact**

**Bond Yields Hit Record Lows**

On July 25, 2012, the 10-year Treasury note and 30-year Treasury bond yields reached all-time lows of 1.43% and 2.46%. That was good news for the housing market. Many mortgage rates are linked to rates on Treasury securities. For example, the traditional 30-year mortgage rate is typically linked to the yield on 10-year Treasury notes. With mortgage rates reaching new lows, potential buyers found that they could afford more expensive homes, and existing homeowners were able to refinance their existing loans, lowering their monthly mortgage payments and leaving them with more money to spend on other things. This kind of activity is precisely what the Federal Reserve hoped to stimulate by keeping interest rates low during the economic recovery.

**Personal Finance Example 5.7** Fran Abrams wishes to determine how much money she will have at the end of 5 years if she chooses annuity A, the ordinary annuity. She will deposit \$1,000 annually, at the end of each of the next 5 years, into a savings account paying 7% annual interest. This situation is depicted on the following time line.

Time line for future value of an ordinary annuity (\$1,000 end-of-year deposit, earning 7%, at the end of 5 years)

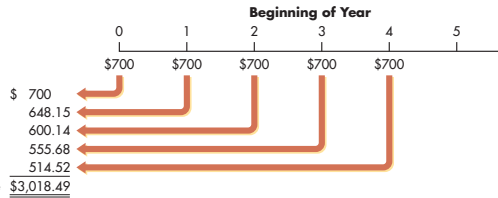
As the figure shows, at the end of year 5, Fran will have \$5,750.74 in her account. Note that because the deposits are made at the end of the year, the first

$$PV = CF \div r \quad (5.7)$$

**IRF Example 5.10**

In Example 5.8 of Braden Company, we found the present value of Braden's \$700, 5-year ordinary annuity discounted at 8% to be \$2,794.90. If we now assume that Braden's \$700 annual cash flow occurs at the *start* of each year and is thereby an annuity due. This situation is depicted on the following time line.

Time line for present value of an annuity due (\$700 beginning-of-year cash flows, discounted at 8%, over 5 years)

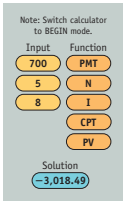


We can calculate its present value using a calculator or a spreadsheet.

**Calculator use** Before using your calculator to find the present value of an annuity due, you must either switch it to BEGIN mode or use the DUE key, depending on the specifics of your calculator. Then, using the inputs shown at the left, you will find the present value of the annuity due to be \$3,018.49 (Note: Because we nearly always assume end-of-period cash flows, be sure to switch your calculator back to END mode when you have completed your annuity-due calculations.)

**Spreadsheet use** The present value of the annuity due also can be calculated as shown on the following Excel spreadsheet.

MyFinanceLab Financial Calculator



	A	B
1	PRESENT VALUE OF AN ANNUITY DUE	
2	Annual annuity payment	\$700
3	Annual rate of interest	8%
4	Number of years	5
5	Present value	-\$3,018.49

Entry in Cell B5 is =PV(B3,B4,B2,0,1).  
The minus sign appears before the \$3,018.49 in B5 because the annuity's present value is a cost and therefore a cash outflow.

**Examples** are an important component of the book's learning system. Numbered and clearly set off from the text, they provide an immediate and concrete demonstration of how to apply financial concepts, tools, and techniques.

Some examples demonstrate time-value-of-money techniques. These examples often show the use of time lines, equations, financial calculators, and spreadsheets (with cell formulas).

**New!** An IRF icon, which appears with some examples, indicates that the example can be solved using the interest rate factors. The reader can access the *Interest Rate Factor Supplement* at MyFinanceLab. The *Interest Rate Factor Supplement* is a self-contained supplement that explains how the reader should use the interest rate factors and documents how the in-chapter examples can be solved by using them.

MyFinanceLab contains additional resources to demonstrate the examples. **New!** The MyFinanceLab Financial Calculator reference indicates that the reader can use the finance calculator tool in MyFinanceLab to find the solution for an example by inputting the keystrokes shown in the calculator screenshot. **New!** The MyFinanceLab Solution Video reference indicates that the reader can watch a video in MyFinanceLab of the author discussing or solving the example. **New!** The MyFinanceLab Video reference indicates that the reader can watch a video on related core topical areas.

→ **REVIEW QUESTIONS**

- 5-10 What is the difference between an *ordinary annuity* and an *annuity due*? Which is more valuable? Why?
- 5-11 What are the most efficient ways to calculate the present value of an ordinary annuity?
- 5-12 How can the formula for the future value of an annuity be modified to find the future value of an annuity due?
- 5-13 How can the formula for the present value of an ordinary annuity be modified to find the present value of an annuity due?
- 5-14 What is a *perpetuity*? Why is the present value of a perpetuity equal to the annual cash payment divided by the interest rate?

→ **EXCEL REVIEW QUESTIONS** MyFinanceLab

- 5-15 Since tax time comes around every year you smartly decide to make equal contributions to your IRA at the end of every year. Based on the information provided at MFL, calculate the future value of annual IRA contributions grown until retirement.
- 5-16 You have just graduated from college, begun your new career, and now it is time to buy your first home. Based on the information provided at MFL, determine how much you can spend for your new dream home.
- 5-17 Rather than making contributions to an IRA at the end of each year, you decide to make equal contributions at the beginning of each year. Based on the information provided at MFL, solve for the future value of beginning-of-year annual IRA contributions grown until retirement.

**Review Questions** appear at the end of each major text section. These questions challenge readers to stop and test their understanding of key concepts, tools, techniques, and practices before moving on to the next section.

**New! Excel Review Questions** ask readers to complete problems using a simulated Excel spreadsheet in MyFinanceLab that resemble the examples demonstrated in the corresponding section. These problems allow students to gain experience building Excel spreadsheet solutions and developing valuable business skill.

**In Practice** boxes offer insights into important topics in managerial finance through the experiences of real companies, both large and small. There are three categories of In Practice boxes:

**Focus on Ethics** boxes in every chapter help readers understand and appreciate important ethical issues and problems related to managerial finance.

**Focus on Practice** boxes take a corporate focus that relates a business event or situation to a specific financial concept or technique.

Both types of In Practice boxes end with one or more *critical thinking questions* to help readers broaden the lesson from the content of the box.

The end-of-chapter **Summary** consists of two sections. The first section, **Focus on Value**, explains how the chapter's content relates to the firm's goal of maximizing owner wealth. This feature helps reinforce understanding of the link between the financial manager's actions and share value.

The second part of the Summary, the **Review of Learning Goals**, restates each learning goal and summarizes the key material that was presented to support mastery of the goal. This review provides students with an opportunity to reconcile what they have learned with the learning goal and to confirm their understanding before moving forward.

**focus on ETHICS**

**If It Seems Too Good to Be True, It Probably Is**

**In practice** For many years, investors around the world clamored to invest with Bernard Madoff. Those fortunate enough to invest with "Bernie" might not have understood his secret trading system.

Over the years, suspicions were raised about Madoff. He generated high returns year after year, seemingly with very little risk. Madoff credited his complex trading strategy for his investment performance, but other investors

reported in these statements. However, a court ruling only permits claims up to the difference between the amount an investor deposited with Madoff and the amount the investor withdrew. The judge also ruled that investors who managed to

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**focus on PRACTICE**

**Understanding Human Behavior Helps Us Understand Investor Behavior**

**In practice** Market anomalies are patterns inconsistent with the efficient market hypothesis. Behavioral finance has a number of theories to help explain how human emotions influence people in their investment decision-making processes.

Regret theory deals with the emotional reaction people experience after realizing they have made an error in judgment. When deciding whether to sell a stock, investors become emotionally affected by the price at which they purchased the stock. A sale at a loss would confirm that the investor miscalculated the value of the stock when it was purchased. The correct approach when considering whether to sell a stock is, "Would I buy this stock today if it were already liquidated?" If the answer is "no," it is time to sell. Regret theory also holds true for investors who passed up buying a stock that now is selling at a much higher price. Again, the correct approach is to value the stock today without regard to its prior value.

Herding is another market behavior affecting investor decisions. Some investors rationalize their decision to buy certain stocks with "everyone else is doing it." Investors may feel less

embarrassment about losing money on a popular stock than about losing money on an unknown or unpopular stock.

People have a tendency to place particular events into mental accounts, and the difference between these compartments sometimes influences behavior more than the events themselves. Researchers have asked people the following question: "Would you purchase a \$20 ticket at the local theater if you realize after you get there that you have lost a \$20 bill?" Roughly 88 percent of people would do so. Under another scenario, people were asked whether they would buy a second \$20 ticket if they arrived at the theater and realized that they had left at home a ticket purchased in advance for \$20. Only 40 percent of respondents would buy another. In both scenarios, the person is out \$40, but mental accounting leads to a different outcome. In investing, compartmentalization is best illustrated by the hesitation to sell an investment that once had monstrous gains and now has a modest gain. During bull markets, people get accustomed to paper gains. When a market correction deflates investors' net worth, they are hesitant to sell, causing them to wait for the return of that gain.

Other investor behaviors are prospect theory and anchoring. According to prospect theory, people express a different degree of emotion toward gains than losses. Individuals are stressed more by prospective losses than they are buoyed by the prospect of equal gains. Anchoring is the tendency of investors to place more value on recent information. People tend to give too much credence to recent market opinions and events and mistakenly extrapolate recent trends that differ from historical, long-term averages and probabilities. Anchoring is a partial explanation for the longevity of some bull markets.

Most stock-valuation techniques require that all relevant information be available to properly determine a stock's value and potential for future gain. Behavioral finance may explain the connection between valuation and an investor's actions based on that valuation.

► **Theories of behavioral finance can apply to other areas of human behavior in addition to investing. Think of a situation in which you may have demonstrated one of these behaviors. Share your situation with a classmate.**

**Summary**

**FOCUS ON VALUE**

Time value of money is an important tool that financial managers and other market participants use to assess the effects of proposed actions. Because firms have long lives and some decisions affect their long-term cash flows, the effective application of time-value-of-money techniques is extremely important. These techniques enable financial managers to evaluate cash flows occurring at different times so as to combine, compare, and evaluate them and link them to the firm's

**REVIEW OF LEARNING GOALS**

**LG 1** Discuss the role of time value in finance, the use of computational tools, and the basic patterns of cash flow. Financial managers and investors use time-value-of-money techniques when assessing the value of expected cash flow streams. Alternatives can be assessed by either compounding to find future value or discounting to find present value. Financial managers rely primarily on present value techniques. Financial calculators, electronic spreadsheets, and financial tables can streamline the application of time value techniques. The cash flow of a firm can be described by its pattern: single amount, annuity, or mixed stream.

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### Self-Test Problems

(Solutions in Appendix)

- LG 3** **LG 4** **ST3-1** Ratio formulas and interpretations Without referring to the text, indicate for each of the following ratios the formula for calculating it and the kinds of problems, if any, the firm may have if that ratio is too high relative to the industry average. What if the ratio is too low relative to the industry average? Create a table similar to the one that follows and fill in the empty blocks.
- LG 5**

**Self-Test Problems**, keyed to the learning goals, give readers an opportunity to strengthen their understanding of topics by doing a sample problem. For reinforcement, solutions to the Self-Test Problems appear in the appendix at the back of the book. An IRF icon indicates that the Self-Test Problem can be solved using the interest rate factors. The reader can access the Interest Rate Factor Supplement at MyFinanceLab.

### Warm-Up Exercises

All problems are available in MyFinanceLab.

- LG 1** **E4-1** The installed cost of a new computerized controller was \$65,000. Calculate the depreciation schedule by year assuming a recovery period of 5 years and using the appropriate MACRS depreciation percentages given in Table 4.2 on page 120.
- LG 2** **E4-2** Classify the following changes in each of the accounts as either an *inflow* or an *outflow* of cash. During the year (a) marketable securities increased, (b) land and buildings decreased, (c) accounts payable increased, (d) vehicles decreased, (e) accounts receivable increased, and (f) dividends were paid.

**Warm-Up Exercises** follow the Self-Test Problems. These short, numerical exercises give students practice in applying tools and techniques presented in the chapter.

### Problems

All problems are available in MyFinanceLab.

- LG 1** **P4-1** Depreciation On March 20, 2015, Norton Systems acquired two new assets. Asset A was research equipment costing \$17,000 and having a 3-year recovery period. Asset B was duplicating equipment having an installed cost of \$45,000 and a 5-year recovery period. Using the MACRS depreciation percentages in Table 4.2 on page 120, prepare a depreciation schedule for each of these assets.
- LG 1** **P4-2** Depreciation In early 2015, Sosa Enterprises purchased a new machine for \$10,000 to make cork stoppers for wine bottles. The machine has a 3-year recovery period and is expected to have a salvage value of \$2,000. Develop a depreciation schedule for this asset using the MACRS depreciation percentages in Table 4.2.
- LG 5** **P4-19** Integrative: Pro forma statements Red Queen Restaurants wishes to prepare financial plans. Use the financial statements and the other information provided below to prepare the financial plans.

**Comprehensive Problems**, keyed to the learning goals, are longer and more complex than the Warm-Up Exercises. In this section, instructors will find multiple problems that address the important concepts, tools, and techniques in the chapter.

A short descriptor identifies the essential concept or technique of the problem. Problems labeled as **Integrative** tie together related topics.

**Personal Finance Problem**

**LG 4 P4-10** **Preparation of cash budget** Sam and Suzy Sizeman need to prepare a cash budget for the last quarter of 2016 to make sure they can cover their expenditures during the period. Sam and Suzy have been preparing budgets for the past several years and have been able to establish specific percentages for most of their cash outflows. These percentages are based on their take-home pay (that is, monthly utilities normally run 5% of monthly take-home pay). The information in the following table can be used to create their fourth-quarter budget for 2016.

**LG 3 P4-21** **ETHICS PROBLEM** The SEC is trying to get companies to notify the investment community more quickly when a “material change” will affect their forthcoming financial results. In what sense might a financial manager be seen as “more ethical” if he or she follows this directive and issues a press release indicating that sales will not be as high as previously anticipated?

**Personal Finance Problems** specifically relate to personal finance situations and Personal Finance Examples in each chapter. These problems will help students see how they can apply the tools and techniques of managerial finance in managing their own finances.

The last item in the chapter Problems is an **Ethics Problem**. The ethics problem gives students another opportunity to think about and apply ethics principles to managerial financial situations.

All exercises and problems are available in MyFinanceLab.

**Spreadsheet Exercise**



CSM Corporation has a bond issue outstanding at the end of 2015. The bond has 15 years remaining to maturity and carries a coupon interest rate of 6%. Interest on the bond is compounded on a semiannual basis. The par value of the CSM bond is \$1,000, and it is currently selling for \$874.42.

Every chapter includes a **Spreadsheet Exercise**. This exercise gives students an opportunity to use Excel software to create one or more spreadsheets with which to analyze a financial problem. The spreadsheet to be created is often modeled on a table or Excel screenshot located in the chapter. Students can access working versions of the Excel screenshots in MyFinanceLab.

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# About the Authors



**Lawrence J. Gitman** is an emeritus professor of finance at San Diego State University. Dr. Gitman has published more than 50 articles in scholarly journals as well as textbooks covering undergraduate- and graduate-level corporate finance, investments, personal finance, and introduction to business. He is past president of the Academy of Financial Services, the San Diego Chapter of the Financial Executives Institute, the Midwest Finance Association, and the FMA National Honor Society. Dr. Gitman served as Vice-President of Financial Education of the Financial Management Association, as a director of the San Diego MIT Enterprise Forum, and on the CFP® Board of Standards. He received his B.S.I.M. from Purdue University, his M.B.A. from the University of Dayton, and his Ph.D. from the University of Cincinnati. He and his wife have two children and live in La Jolla, California, where he is an avid bicyclist, having twice competed in the coast-to-coast Race Across America.

**Chad J. Zutter** is the Joseph P. and Angela A. Campolo Faculty Fellow and an associate professor of finance at the University of Pittsburgh. His research has a practical, applied focus and has been the subject of feature stories in, among other prominent outlets, *The Economist* and *CFO Magazine*. His papers have been cited in arguments before the U.S. Supreme Court and in consultation with companies such as Google and Intel. Dr. Zutter won the Jensen Prize for the best paper published in the *Journal of Financial Economics* and also won a best paper award from the *Journal of Corporate Finance*. Dr. Zutter has also won teaching awards at Indiana University and the University of Pittsburgh. He received his B.B.A. from the University of Texas at Arlington and his Ph.D. from Indiana University. He and his wife have four children and live in Pittsburgh, Pennsylvania. Prior to his career in academics, Dr. Zutter was a submariner in the U.S. Navy.

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# Preface

The desire to write *Principles of Managerial Finance, Brief* came from the experience of teaching the introductory managerial finance course. Those who have taught the introductory course many times can appreciate the difficulties that some students have absorbing and applying financial concepts. Students want a book that speaks to them in plain English and a book that ties concepts to reality. These students want more than just description; they also want demonstration of concepts, tools, and techniques. This book is written with the needs of students in mind, and it effectively delivers the resources that students need to succeed in the introductory finance course.

Courses and students have changed since the first edition of this book, but the goals of the text have not changed. The conversational tone and wide use of examples set off in the text still characterize *Principles of Managerial Finance, Brief*. Building on those strengths, 7 editions, numerous translations, and well over half a million U.S. users, *Principles* has evolved based on feedback from both instructors and students, from adopters, nonadopters, and practitioners. In this edition, Larry and I have worked to ensure that the book reflects contemporary thinking and pedagogy to further strengthen the delivery of the classic topics that our users have come to expect.

## CHANGES TO THE SEVENTH EDITION

As we made plans to publish the seventh edition, we carefully assessed feedback from users of the sixth edition as well as instructors not currently using our text about content changes that would improve this teaching and learning tool.

In every chapter, our changes were designed to make the material more up to date and more relevant for students. A number of new topics have been added at appropriate places, and new features appear in each chapter:

- The Matter of Fact feature provides additional detail and interesting empirical facts that help students understand the practical implications of financial concepts. Many of these features have been updated or replaced in the seventh edition.
- The new MyFinanceLab Financial Calculator allows students to find the solution for an example by inputting the keystrokes shown in the calculator screenshot.
- The new MyFinanceLab Solution Videos allow the student to watch a video of the author discussing or solving the example. There are also MyFinanceLab Videos on related core topical areas.
- The new Interest Rate Factor (IRF) Supplement is a self-contained supplement which explains to the student how to use the interest rate factors, and works seamlessly with the textbook, so the student can go directly to the IRF Supplement and see the in-chapter example solved using the interest rate factors.
- We also made changes to many of the problems at the end of each chapter.

The chapter sequence is essentially unchanged from the prior edition, but there are some noteworthy changes within each chapter. This edition contains 15 chapters divided into seven parts. Each part is introduced by a brief overview, which is intended to give students an advance sense for the collective value of the chapters included in the part.

Part 1 contains two chapters. The first provides an overview of the role of managerial finance in a business enterprise. The second describes the financial market context in which firms operate and provides expanded and updated coverage of the recent financial crisis and its lingering consequences. This chapter not only explores the root causes and effects of the financial crisis, but it also discusses the changing regulatory landscape within which financial institutions and markets function.

Part 2 contains three chapters focused on basic financial skills such as financial statement analysis, cash flow analysis, and time-value-of-money calculations.

Part 3 focuses on bond and stock valuation. We placed these two chapters just ahead of the risk and return chapter to provide students with exposure to basic material on bonds and stocks that is easier to grasp than some of the more theoretical concepts in the next part.

Part 4 contains the risk and return chapter as well as the chapter on the cost of capital. We believe that following the risk and return chapter with the cost of capital material helps students understand the important principle that the expectations of a firm's investors shape how the firm should approach major investment decisions (which are covered in Part 5). In other words, Part 4 is designed to help students understand where a project "hurdle rate" comes from before they start using hurdle rates in capital budgeting problems.

Part 5 contains two chapters on various capital budgeting topics. The first of these chapters focuses on capital budgeting methods such as payback and net present value analysis. The second chapter in this part explains how financial analysts construct cash flow projections, which are a required component of net present value analysis, and describes how firms analyze the risks associated with capital investments.

Part 6 deals with the topics of capital structure and payout policy. These two chapters contain updated material on trends in firms' use of leverage and their payout practices.

Finally, Part 7 contains two chapters centered on working capital issues. A major development in business has been the extent to which firms have found new ways to economize on working capital investments. The first chapter in Part 7 explains why and how firms work hard to squeeze resources from their investments in current assets such as cash and inventory. The second chapter in this part focuses more on management of current liabilities.

Although the text content is sequential, instructors can assign almost any chapter as a self-contained unit, enabling instructors to customize the text to various teaching strategies and course lengths.

Like the previous editions, the seventh edition incorporates a proven learning system, which integrates pedagogy with concepts and practical applications. It concentrates on the knowledge that is needed to make keen financial decisions in an increasingly competitive business environment. The strong pedagogy and

generous use of examples—including personal finance examples—make the text an easily accessible resource for in-class learning or out-of-class learning, such as online courses and self-study programs.

## **ORGANIZATION**

The text's organization conceptually links the firm's actions and its value as determined in the financial market. Each major decision area is presented in terms of both risk and return factors and their potential impact on owners' wealth. A Focus on Value element in each chapter's Summary helps reinforce the student's understanding of the link between the financial manager's actions and the firm's share value.

In organizing each chapter, we have adhered to a managerial decision-making perspective, relating decisions to the firm's overall goal of wealth maximization. Once a particular concept has been developed, its application is illustrated by an example, which is a hallmark feature of this book. These examples demonstrate, and solidify in the student's thought, financial decision-making considerations and their consequences.

## **INTERNATIONAL CONSIDERATIONS**

We live in a world where international considerations cannot be divorced from the study of business in general and finance in particular. As in prior editions, discussions of international dimensions of chapter topics are integrated throughout the book. International material is integrated into learning goals and end-of-chapter materials.

## **PERSONAL FINANCE LINKAGES**

The seventh edition contains several features designed to help students see the value of applying financial principles and techniques in their personal lives. At the start of each chapter, the Why This Chapter Matters to You feature helps motivate student interest by discussing how the topic of the chapter relates to the concerns of other major business disciplines and to personal finance. Within the chapter, Personal Finance Examples explicitly link the concepts, tools, and techniques of each chapter to personal finance applications. Throughout the homework material, the book provides numerous personal finance problems. The purpose of these personal finance materials is to demonstrate to students the usefulness of managerial finance knowledge in both business and personal financial dealings.

## **ETHICAL ISSUES**

The need for ethics in business remains as important as ever. Students need to understand the ethical issues that financial managers face as they attempt to maximize shareholder value and to solve business problems. Thus, half the chapters include an In Practice box that focuses on current ethical issues.

## HOMEWORK OPPORTUNITIES

Of course, practice is essential for students' learning of managerial finance concepts, tools, and techniques. To meet that need, the book offers a rich and varied menu of homework assignments: short, numerical Warm-Up Exercises; a comprehensive set of Problems, including more than one problem for each important concept or technique and personal finance problems; an Ethics Problem for each chapter; and a Spreadsheet Exercise. In addition, the end-of-section Excel Review Questions and the end-of-chapter problems are available in algorithmic form in MyFinanceLab. These materials (see pages viii through x for detailed descriptions) offer students solid learning opportunities, and they offer instructors opportunities to expand and enrich the classroom environment.

From classroom to boardroom, the seventh edition of *Principles of Managerial Finance, Brief* can help users get to where they want to be. We believe that it is the best edition yet: more relevant, more accurate, and more effective than ever.

*Lawrence J. Gitman*  
*La Jolla, California*

*Chad J. Zutter*  
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# Supplements to the Seventh Edition

The *Principles of Managerial Finance, Brief* Teaching and Learning System includes a variety of useful supplements for teachers and for students.

## TEACHING TOOLS FOR INSTRUCTORS

The key teaching tools available to instructors are the *Instructor's Manual*, testing materials, and *PowerPoint Lecture Presentations*.

***Instructor's Manual*** This comprehensive resource pulls together the teaching tools so that instructors can use the textbook easily and effectively in the classroom. Each chapter provides an overview of key topics and detailed answers and solutions to all review questions, Warm-Up Exercises, end-of-chapter problems, and chapter cases, plus suggested answers to all critical thinking questions in chapter boxes, Ethics Problems, and Group Exercises. At the end of the manual are practice quizzes and solutions. The complete *Instructor's Manual*, including Spreadsheet Exercises, is available online at the Instructor's Resource Center ([www.pearsonhighered.com/irc](http://www.pearsonhighered.com/irc)).

***Test Item File*** Thoroughly revised to accommodate changes in the text, the *Test Item File* consists of a mix of true/false, multiple-choice, and essay questions. Each test question includes identifiers for type of question, skill tested by learning goal, and key topic tested plus, where appropriate, the formulas or equations used in deriving the answer.

The *Test Item File* is also available in *Test Generator Software (TestGen)* for either Windows or Macintosh. The *Test Item File* and *TestGen* are available online at the Instructor's Resource Center ([www.pearsonhighered.com/irc](http://www.pearsonhighered.com/irc)).

***PowerPoint Lecture Presentation*** Revised by Kate Demarest, Carroll Community College. This presentation combines lecture notes with all the art from the textbook. The *PowerPoint Lecture Presentation* is available online at the Instructor's Resource Center ([www.pearsonhighered.com/irc](http://www.pearsonhighered.com/irc)).

## LEARNING TOOLS FOR STUDENTS

Beyond the book itself, students have access to valuable resources, such as MyFinanceLab and the *Study Guide*, that if taken advantage of can help ensure their success.

**MyFinanceLab** ***MyFinanceLab*** MyFinanceLab opens the door to a powerful Web-based diagnostic testing and tutorial system designed specifically for the Gitman/Zutter, *Principles of Managerial Finance, Brief*. With MyFinanceLab, instructors can create, edit, and assign online homework and test and track all student work in the online gradebook. MyFinanceLab allows students to take practice tests correlated to the textbook and receive a customized study plan based on the test results. Most

end-of-chapter problems are available in MyFinanceLab, and because the problems have algorithmically generated values, no student will have the same homework as another; there is an unlimited opportunity for practice and testing. Students get the help they need, when they need it, from the robust tutorial options, including “View an Example” and “Help Me Solve This,” which breaks the problem into its steps and links to the relevant textbook page.

This fully integrated online homework system gives students the hands-on practice and tutorial help they need to learn finance efficiently. There are ample opportunities for online practice and assessment that is automatically graded in MyFinanceLab ([www.myfinancelab.com](http://www.myfinancelab.com)).

Advanced reporting features in MyFinanceLab also allow you to easily report on AACSB accreditation and assessment in just a few clicks.

Chapter Cases with automatically graded assessment are also provided in MyFinanceLab. These cases have students apply the concepts they have learned to a more complex and realistic situation. These cases help strengthen practical application of financial tools and techniques.

MyFinanceLab also has Group Exercises that students can work together in the context of an ongoing company. Each group creates a company and follows it through the various managerial finance topics and business activities presented in the textbook.

An online glossary, digital flashcards, financial calculator tutorials, videos, Spreadsheet Use examples from the text in Excel, and numerous other premium resources are available in MyFinanceLab.

**Study Guide** *Revised by Shannon Donovan, Bridgewater State University.* The *Study Guide* is an integral component of the *Principles of Managerial Finance, Brief Teaching and Learning System*. It offers many tools for studying finance. Each chapter contains the following features: chapter summary enumerated by learning goals; topical chapter outline, also broken down by learning goals for quick review; sample problem solutions; study tips; and a full sample exam with the answers at the end of the chapter. A financial dictionary of key terms is located at the end of the *Study Guide*, along with an appendix with tips on using financial calculators.

**NEW! Interest Rate Factor (IRF) Supplement** This self-contained supplement explains to the student how to use the interest rate factors and works seamlessly with the textbook, so the student can go directly to the IRF Supplement and see the in-chapter example solved using the interest rate factors. All examples which appear in the IRF Supplement are indicated in the text with an IRF icon.

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# Part 1

## Introduction to Managerial Finance

### Chapters in This Part

- 1 The Role of Managerial Finance**
- 2 The Financial Market Environment**

Part 1 of *Principles of Managerial Finance* discusses the role that financial managers play in businesses and the financial market environment in which firms operate. We argue that the goal of managers should be to maximize the value of the firm and by doing so maximize the wealth of its owners. Financial managers act on behalf of the firm's owners by making operating and investment decisions whose benefits exceed their costs. These decisions create wealth for shareholders. Maximizing shareholder wealth is important because firms operate in a highly competitive financial market environment that offers shareholders many alternatives for investing their funds. To raise the financial resources necessary to fund the firm's ongoing operations and future investment opportunities, managers have to deliver value to the firm's investors. Without smart financial managers and access to financial markets, firms are unlikely to survive, let alone achieve the long-term goal of maximizing the value of the firm.

# 1

# The Role of Managerial Finance

## Learning Goals

- LG 1** Define *finance* and the managerial finance function.
- LG 2** Describe the legal forms of business organization.
- LG 3** Describe the goal of the firm, and explain why maximizing the value of the firm is an appropriate goal for a business.
- LG 4** Describe how the managerial finance function is related to economics and accounting.
- LG 5** Identify the primary activities of the financial manager.
- LG 6** Describe the nature of the principal–agent relationship between the owners and managers of a corporation, and explain how various corporate governance mechanisms attempt to manage agency problems.

## Why This Chapter Matters to You

### In your *professional* life

**ACCOUNTING** You need to understand the relationships between the accounting and finance functions within the firm, how decision makers rely on the financial statements you prepare, why maximizing a firm's value is not the same as maximizing its profits, and the ethical duty you have when reporting financial results to investors and other stakeholders.

**INFORMATION SYSTEMS** You need to understand why financial information is important to managers in all functional areas, the documentation that firms must produce to comply with various regulations, and how manipulating information for personal gain can get managers into serious trouble.

**MANAGEMENT** You need to understand the various legal forms of a business organization, how to communicate the goal of the firm to employees and other stakeholders, the advantages and disadvantages of the agency relationship between a firm's managers and its owners, and how compensation systems can align or misalign the interests of managers and investors.

**MARKETING** You need to understand why increasing a firm's revenues or market share is not always a good thing, how financial managers evaluate aspects of customer relations such as cash and credit management policies, and why a firm's brands are an important part of its value to investors.

**OPERATIONS** You need to understand the financial benefits of increasing a firm's production efficiency, why maximizing profit by cutting costs may not increase the firm's value, and how managers act on behalf of investors when operating a corporation.

**In your *personal* life** Many of the principles of managerial finance also apply to your personal life. Learning a few simple financial principles can help you manage your own money more effectively.

LG 1

LG 2

## 1.1 Finance and Business

The field of finance is broad and dynamic. Finance influences everything that firms do, from hiring personnel to building factories to launching new advertising campaigns. Because there are important financial dimensions to almost any aspect of business, there are many financially oriented career opportunities for those who understand the principles of finance described in this textbook. Even if you do not see yourself pursuing a career in finance, you'll find that an understanding of a few key ideas in finance will help make you a smarter consumer and a wiser investor with your own money.

### WHAT IS FINANCE?

**Finance** can be defined as the science and art of managing money. At the personal level, finance is concerned with individuals' decisions about how much of their earnings they spend, how much they save, and how they invest their savings. In a business context, finance involves the same types of decisions: how firms raise money from investors, how firms invest money in an attempt to earn a profit, and how they decide whether to reinvest profits in the business or distribute them back to investors. The keys to good financial decisions are much the same for businesses and individuals, which is why most students will benefit from an understanding of finance regardless of the career path they plan to follow. Learning the techniques of good financial analysis will not only help you make better financial decisions as a consumer, but it will also help you understand the financial consequences of the important business decisions you will face no matter what career path you follow.

### CAREER OPPORTUNITIES IN FINANCE

Careers in finance typically fall into one of two broad categories: (1) financial services and (2) managerial finance. Workers in both areas rely on a common analytical "tool kit," but the types of problems to which that tool kit is applied vary a great deal from one career path to the other.

#### Financial Services

**Financial services** is the area of finance concerned with the design and delivery of advice and financial products to individuals, businesses, and governments. It involves a variety of interesting career opportunities within the areas of banking, personal financial planning, investments, real estate, and insurance.

#### Managerial Finance

**Managerial finance** is concerned with the duties of the *financial manager* working in a business. **Financial managers** administer the financial affairs of all types of businesses: private and public, large and small, profit seeking and not for profit. They perform such varied tasks as developing a financial plan or budget, extending credit to customers, evaluating proposed large expenditures, and raising money to fund the firm's operations. In recent years, a number of factors have increased the importance and complexity of the financial manager's duties. These factors include the recent global financial crisis and subsequent responses by regulators, increased competition, and technological change. For example, globalization has led U.S. corporations to increase their transactions in other countries, and foreign

#### finance

The science and art of managing money.

#### financial services

The area of finance concerned with the design and delivery of advice and financial products to individuals, businesses, and governments.



#### managerial finance

Concerns the duties of the *financial manager* in a business.

#### financial manager

Actively manages the financial affairs of all types of businesses, whether private or public, large or small, profit seeking or not for profit.

corporations have done likewise in the United States. These changes increase demand for financial experts who can manage cash flows in different currencies and protect against the risks that arise from international transactions. These changes increase the finance function's complexity, but they also create opportunities for a more rewarding career. The increasing complexity of the financial manager's duties has increased the popularity of a variety of professional certification programs. Financial managers today actively develop and implement corporate strategies aimed at helping the firm grow and improve its competitive position. As a result, many corporate presidents and chief executive officers (CEOs) rose to the top of their organizations by first demonstrating excellence in the finance function.

## LEGAL FORMS OF BUSINESS ORGANIZATION

One of the most important decisions all businesses confront is how to choose a legal form of organization. This decision has very important financial implications because how a business is organized legally influences the risks that the firm's owners must bear, how the firm can raise money, and how the firm's profits will be taxed. The three most common legal forms of business organization are the *sole proprietorship*, the *partnership*, and the *corporation*. More businesses are organized as sole proprietorships than any other legal form, but the largest businesses are almost always organized as corporations. Even so, each type of organization has its advantages and disadvantages.

### Sole Proprietorships

A **sole proprietorship** is a business owned by one person who operates it for his or her own profit. About 61 percent of all businesses are sole proprietorships. The typical sole proprietorship is small, such as a bike shop, personal trainer, or plumber. The majority of sole proprietorships operate in the wholesale, retail, service, and construction industries.

Typically, the owner (proprietor), along with a few employees, operates the proprietorship. The proprietor raises capital from personal resources or by borrowing, and he or she is responsible for all business decisions. As a result, this form of organization appeals to entrepreneurs who enjoy working independently.

A major drawback to the sole proprietorship is **unlimited liability**, which means that liabilities of the business are the entrepreneur's responsibility and that creditors can make claims against the entrepreneur's personal assets if the business fails to pay its debts. The key strengths and weaknesses of sole proprietorships are summarized in Table 1.1.

### Partnerships

A **partnership** consists of two or more owners doing business together for profit. Partnerships account for about 8 percent of all businesses, and they are typically larger than sole proprietorships. Partnerships are common in the finance, insurance, and real estate industries. Public accounting and law partnerships often have large numbers of partners.

Most partnerships are established by a written contract known as **articles of partnership**. In a *general* (or *regular*) *partnership*, all partners have unlimited liability, and each partner is legally liable for *all* of the debts of the partnership. Table 1.1 summarizes the strengths and weaknesses of partnerships.

#### sole proprietorship

A business owned by one person and operated for his or her own profit.

#### unlimited liability

The condition of a sole proprietorship (or general partnership), giving creditors the right to make claims against the owner's personal assets to recover debts owed by the business.

#### partnership

A business owned by two or more people and operated for profit.

#### articles of partnership

The written contract used to formally establish a business partnership.

## Matter of fact

### BizStats.com Total Receipts by Type of U.S. Firm

Although there are vastly more sole proprietorships than there are partnerships and corporations combined, they generate the lowest level of receipts. In total, sole proprietorships generated more than \$1.3 trillion in receipts, but this number hardly compares to the more than \$50 trillion in receipts generated by corporations.

BizStats.com Total Receipts by Type of U.S. Firm

	Sole proprietorships	Partnerships	Corporations
Number of firms (millions)	23.1	3.1	7.7
Percentage of all firms	61%	8%	20%
Total receipts (\$ billions)	1,324	4,244	50,757
Percentage of all receipts	2%	7%	80%

### Corporations

#### corporation

An entity created by law.

A **corporation** is an entity created by law. A corporation has the legal powers of an individual in that it can sue and be sued, make and be party to contracts, and acquire property in its own name. Although only about 20 percent of all U.S. businesses are incorporated, the largest businesses nearly always are; corporations account for roughly 80 percent of total business revenues. Although

**TABLE 1.1** Strengths and Weaknesses of the Common Legal Forms of Business Organization

	Sole proprietorship	Partnership	Corporation
Strengths	<ul style="list-style-type: none"> <li>Owner receives all profits (and sustains all losses)</li> <li>Low organizational costs</li> <li>Income included and taxed on proprietor's personal tax return</li> <li>Independence</li> <li>Secrecy</li> <li>Ease of dissolution</li> </ul>	<ul style="list-style-type: none"> <li>Can raise more funds than sole proprietorships</li> <li>Borrowing power enhanced by more owners</li> <li>More available brain power and managerial skill</li> <li>Income included and taxed on partner's personal tax return</li> </ul>	<ul style="list-style-type: none"> <li>Owners have <i>limited liability</i>, which guarantees that they cannot lose more than they invested</li> <li>Can achieve large size via sale of ownership (stock)</li> <li>Ownership (stock) is readily transferable</li> <li>Long life of firm</li> <li>Can hire professional managers</li> <li>Has better access to financing</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>Owner has <i>unlimited liability</i> in that total wealth can be taken to satisfy debts</li> <li>Limited fund-raising power tends to inhibit growth</li> <li>Proprietor must be jack-of-all-trades</li> <li>Difficult to give employees long-run career opportunities</li> <li>Lacks continuity when proprietor dies</li> </ul>	<ul style="list-style-type: none"> <li>Owners have <i>unlimited liability</i> and may have to cover debts of other partners</li> <li>Partnership is dissolved when a partner dies</li> <li>Difficult to liquidate or transfer partnership</li> </ul>	<ul style="list-style-type: none"> <li>Taxes are generally higher because corporate income is taxed, and dividends paid to owners are also taxed at a maximum 15% rate</li> <li>More expensive to organize than other business forms</li> <li>Subject to greater government regulation</li> <li>Lacks secrecy because regulations require firms to disclose financial results</li> </ul>

**stockholders**

The owners of a corporation, whose ownership, or *equity*, takes the form of common stock or, less frequently, preferred stock.

**limited liability**

A legal provision that limits stockholders' liability for a corporation's debt to the amount they initially invested in the firm by purchasing stock.

**common stock**

The purest and most basic form of corporate ownership.

**dividends**

Periodic distributions of cash to the stockholders of a firm.

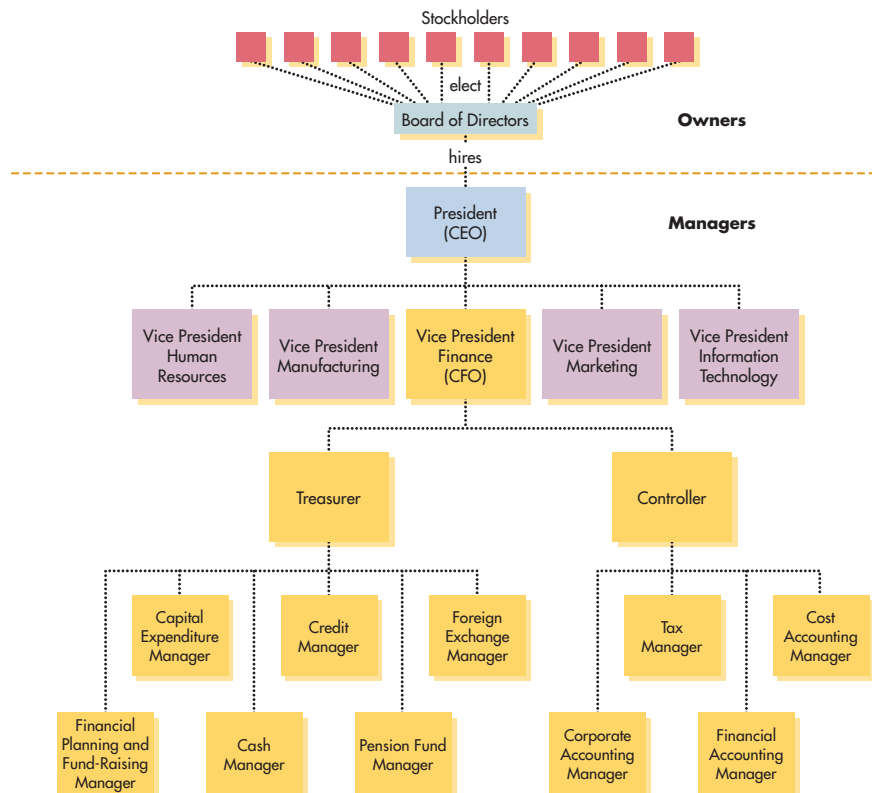
corporations engage in all types of businesses, manufacturing firms account for the largest portion of corporate business receipts and net profits. Table 1.1 lists the key strengths and weaknesses of corporations.

The owners of a corporation are its **stockholders**, whose ownership, or *equity*, takes the form of common stock or, less frequently, preferred stock. Unlike the owners of sole proprietorships or partnerships, stockholders of a corporation enjoy **limited liability**, meaning that they are not personally liable for the firm's debts. Their losses are limited to the amount they invested in the firm when they purchased shares of stock. In Chapter 7, you will learn more about common stock, but for now it is enough to say that **common stock** is the purest and most basic form of corporate ownership. Stockholders expect to earn a return by receiving **dividends**—periodic distributions of cash—or by realizing gains through increases in share price. Because the money to pay dividends generally comes from the profits that a firm earns, stockholders are sometimes referred to as *residual claimants*, meaning that stockholders are paid last, after employees, suppliers, tax authorities, and lenders receive what they are owed. If the firm does not generate enough cash to pay everyone else, there is nothing available for stockholders.

As noted in the upper portion of Figure 1.1, control of the corporation functions a little like a democracy. The stockholders (owners) vote periodically to elect

**FIGURE 1.1****Corporate Organization**

The general organization of a corporation and the finance function (which is shown in yellow)





**board of directors**

Group elected by the firm's stockholders and typically responsible for approving strategic goals and plans, setting general policy, guiding corporate affairs, and approving major expenditures.

**president or chief executive officer (CEO)**

Corporate official responsible for managing the firm's day-to-day operations and carrying out the policies established by the board of directors.

**Limited partnership (LP)**

A partnership in which one or more partners have limited liability as long as at least one partner (the general partner) has unlimited liability. The limited partners are passive investors that cannot take an active role in the firm's management.

**S corporation (S corp)**

A tax-reporting entity that allows certain corporations with 100 or fewer stockholders to choose to be taxed as partnerships. Its stockholders receive the organizational benefits of a corporation and the tax advantages of a partnership.

**Limited liability company (LLC)**

Permitted in most states, the LLC gives its owners limited liability and taxation as a partnership. But unlike an S corp, the LLC can own more than 80% of another corporation, and corporations, partnerships, or non-U.S. Residents can own LLC shares.

**Limited liability partnership (LLP)**

Permitted in most states, LLP partners are liable for their own acts of malpractice, but not for those of other partners. The LLP is taxed as a partnership and is frequently used by legal and accounting professionals.

members of the *board of directors* and to decide other issues such as amending the corporate charter. The **board of directors** is typically responsible for approving strategic goals and plans, setting general policy, guiding corporate affairs, and approving major expenditures. Most importantly, the board decides when to hire or fire top managers and establishes compensation packages for the most senior executives. The board consists of “inside” directors, such as key corporate executives, and “outside” or “independent” directors, such as executives from other companies, major shareholders, and national or community leaders. Outside directors for major corporations receive compensation in the form of cash, stock, and stock options. This compensation often totals \$100,000 per year or more.

The **president or chief executive officer (CEO)** is responsible for managing day-to-day operations and carrying out the policies established by the board of directors. The CEO reports periodically to the firm's directors.

It is important to note the division between owners and managers in a large corporation, as shown by the dashed horizontal line in Figure 1.1. This separation and some of the issues surrounding it will be addressed in the discussion of *the agency issue* later in this chapter.

**Other Limited Liability Organizations**

A number of other organizational forms provide owners with limited liability. The most popular are **limited partnership (LP)**, **S corporation (S corp)**, **limited liability company (LLC)**, and **limited liability partnership (LLP)**. Each represents a specialized form or blending of the characteristics of the organizational forms described previously. What they have in common is that their owners enjoy limited liability, and they typically have fewer than 100 owners.

**WHY STUDY MANAGERIAL FINANCE?**

An understanding of the concepts, techniques, and practices of managerial finance will fully acquaint you with the financial manager's activities and decisions. Because the consequences of most business decisions are measured in financial terms, the financial manager plays a key operational role. People in all areas of responsibility—accounting, information systems, management, marketing, operations, and so forth—need a general awareness of finance so that they will understand how to quantify the consequences of their actions.

OK, so you're not planning to major in finance! To improve your chance of success in your chosen business career, you still will need to understand how financial managers think. Managers in the firm, regardless of their job descriptions, usually have to provide financial justification for the resources they need to do their job. Whether you are hiring new workers, negotiating an advertising budget, or upgrading the technology used in a manufacturing process, understanding the financial aspects of your actions will help you gain the resources you need to be successful. The “Why This Chapter Matters to You” section that appears on each chapter-opening page should help you understand the importance of each chapter in both your professional and personal life.

As you study, you will learn about the career opportunities in managerial finance, which are briefly described in Table 1.2 below. Although we focus on publicly held profit-seeking firms, the principles presented are equally applicable to private and not-for-profit organizations. The decision-making principles developed can also be applied to personal financial decisions. We hope that this first

**TABLE 1.2** Career Opportunities in Managerial Finance

Position	Description
Financial analyst	Prepares the firm's financial plans and budgets. Other duties include financial forecasting, performing financial comparisons, and working closely with accounting.
Capital expenditures manager	Evaluates and recommends proposed long-term investments. May be involved in the financial aspects of implementing approved investments.
Project finance manager	Arranges financing for approved long-term investments. Coordinates consultants, investment bankers, and legal counsel.
Cash manager	Maintains and controls the firm's daily cash balances. Frequently manages the firm's cash collection and disbursement activities and short-term investments and coordinates short-term borrowing and banking relationships.
Credit analyst/manager	Administers the firm's credit policy by evaluating credit applications, extending credit, and monitoring and collecting accounts receivable.
Pension fund manager	Oversees or manages the assets and liabilities of the employees' pension fund.
Foreign exchange manager	Manages specific foreign operations and the firm's exposure to fluctuations in exchange rates.

exposure to the exciting field of finance will provide the foundation and initiative for further study and possibly even a future career.

### → REVIEW QUESTIONS

- 1-1 What is *finance*? Explain how this field affects all the activities in which businesses engage.
- 1-2 What is the *financial services* area of finance? Describe the field of *managerial finance*.
- 1-3 Which legal form of business organization is most common? Which form is dominant in terms of business revenues?
- 1-4 Describe the roles and the relationships among the major parties in a corporation: stockholders, board of directors, and managers. How are corporate owners rewarded for the risks they take?
- 1-5 Briefly name and describe some organizational forms other than corporations that provide owners with limited liability.
- 1-6 Why is the study of managerial finance important to your professional life regardless of the specific area of responsibility you may have within the business firm? Why is it important to your personal life?

### LG 3

## 1.2 Goal of the Firm

What goal should managers pursue? There is no shortage of possible answers to this question. Some might argue that managers should focus entirely on satisfying customers. Progress toward this goal could be measured by the market share attained by each of the firm's products. Others suggest that managers must first inspire and motivate employees; in that case, employee turnover might be the key success metric

to watch. Clearly, the goal managers select will affect many of the decisions they make, so choosing an objective is a critical determinant of how businesses operate.

## MAXIMIZE SHAREHOLDER WEALTH

Finance teaches that managers' primary goal should be to maximize the wealth of the firm's owners, the stockholders. The simplest and best measure of stockholder wealth is the firm's share price, so most textbooks (ours included) instruct managers to take actions that increase the firm's share price. A common misconception is that when firms strive to make their shareholders happy, they do so at the expense of other constituencies such as customers, employees, or suppliers. This line of thinking ignores that in most cases, to enrich shareholders, managers must first satisfy the demands of these other interest groups. Dividends that stockholders receive ultimately come from the firm's profits. It is unlikely that a firm whose customers are unhappy with its products, whose employees are looking for jobs at other firms, or whose suppliers are reluctant to ship raw materials will make shareholders rich because such a firm will likely be less profitable in the long run than one that better manages its relations with these stakeholder groups.

Therefore, we argue that the goal of the firm, and also of managers, should be to *maximize the wealth of the owners for whom it is being operated*, which in most instances is equivalent to *maximize the stock price*. This goal translates into a straightforward decision rule for managers: *Only take actions that are expected to increase the wealth of shareholders*. Although that goal sounds simple, implementing it is not always easy. To determine whether a particular course of action will increase or decrease shareholders' wealth, managers have to assess what return (that is, cash inflows net of cash outflows) the action will bring and how risky that return might be. Figure 1.2 depicts this process. In fact, we can say that *the key variables that managers must consider when making business decisions are return (cash flows) and risk*.

### earnings per share (EPS)

The amount earned during the period on behalf of each outstanding share of common stock, calculated by dividing the period's total earnings available for the firm's common stockholders by the number of shares of common stock outstanding.

## MAXIMIZE PROFIT?

It might seem intuitive that maximizing a firm's share price is equivalent to maximizing its profits. That thought is not always correct, however.

Corporations commonly measure profits in terms of **earnings per share (EPS)**, which represent the amount earned during the period on behalf of each

**FIGURE 1.2**

**Share Price Maximization**  
Financial decisions and share price

