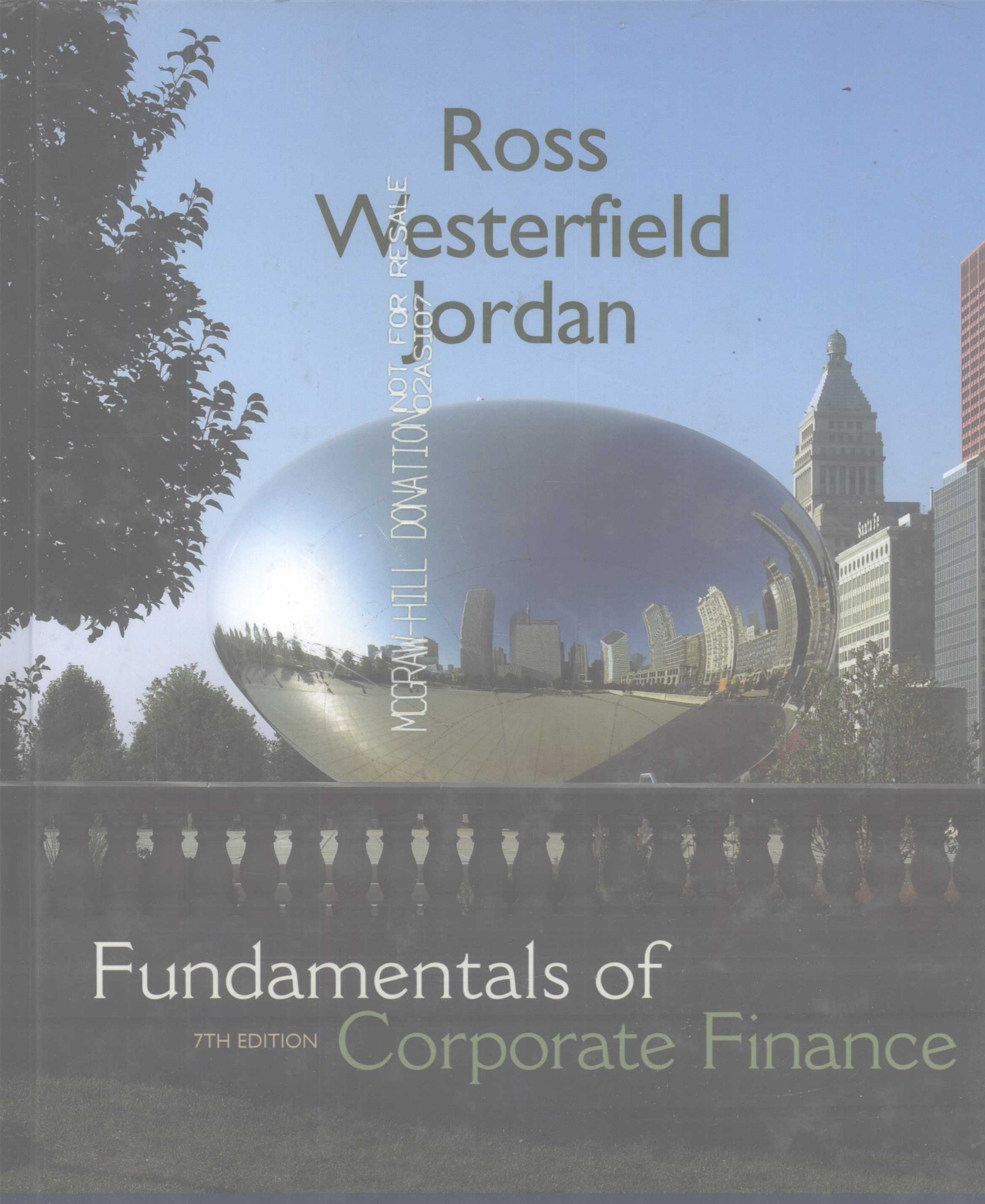

Ross
Westerfield
Jordan

Fundamentals of Corporate Finance

7TH EDITION

ALTERNATE EDITION

ALTERNATE EDITION

Fundamentals of Corporate Finance

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FUNDAMENTALS OF CORPORATE FINANCE

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To our families and friends with love and gratitude.

S.A.R.   R.W.W.   B.D.J.

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Preface from the Authors

When the three of us decided to write a book, we were united by one strongly held principle: Corporate finance should be developed in terms of a few integrated, powerful ideas. We believed that the subject was all too often presented as a collection of loosely related topics, unified primarily by virtue of being bound together in one book, and we thought there must be a better way.

One thing we knew for certain was that we didn't want to write a "me-too" book. So, with a lot of help, we took a hard look at what was truly important and useful. In doing so, we were led to eliminate topics of dubious relevance, downplay purely theoretical issues, and minimize the use of extensive and elaborate calculations to illustrate points that are either intuitively obvious or of limited practical use.

As a result of this process, three basic themes became our central focus in writing *Fundamentals of Corporate Finance:*

An Emphasis on Intuition

We always try to separate and explain the principles at work on a common sense, intuitive level before launching into any specifics. The underlying ideas are discussed first in very general terms and then by way of examples that illustrate in more concrete terms how a financial manager might proceed in a given situation.

A Unified Valuation Approach

We treat net present value (NPV) as the basic concept underlying corporate finance. Many texts stop well short of consistently integrating this important principle. The most basic and important notion, that NPV represents the excess of market value over cost, often is lost in an overly mechanical approach that emphasizes computation at the expense of comprehension. In contrast, every subject we cover is firmly rooted in valuation, and care is taken throughout to explain how particular decisions have valuation effects.

A Managerial Focus

Students shouldn't lose sight of the fact that financial management concerns management. We emphasize the role of the financial manager as decision maker, and we stress the need for managerial input and judgment. We consciously avoid "black box" approaches to finance, and, where appropriate, the approximate, pragmatic nature of financial analysis is made explicit, possible pitfalls are described, and limitations are discussed.

In retrospect, looking back to our 1991 first edition IPO, we had the same hopes and fears as any entrepreneurs. How would we be received in the market? At the time, we had no idea that just 14 years later, we would be working on a seventh edition. We certainly never dreamed that in those years we would work with friends and colleagues from around the world to create country-specific Australian, Canadian, and South African editions, an International edition, Chinese, French, Polish, and Spanish language editions, and an entirely separate book, *Essentials of Corporate Finance,* now in its fourth edition.

Today, as we prepare to once more enter the market, our goal is to stick with the basic principles that have brought us this far. However, based on an enormous amount of feedback we have received from you and your colleagues, we have made this edition and its package even *more flexible* than previous editions. We offer flexibility in coverage, by continuing to offer a variety of editions, and flexibility in pedagogy, by providing a wide variety of features in the book to help students to learn about corporate finance. We also provide flexibility in package options by offering the most extensive collection of teaching, learning, and technology aids of any corporate finance text. Whether you use just the textbook, or the book in conjunction with our other products, we believe you will find a combination with this edition that will meet your current as well as your changing needs.

Stephen A. Ross
Randolph W. Westerfield
Bradford D. Jordan

Coverage

This book was designed and developed explicitly for a first course in business or corporate finance, for both finance majors and non-majors alike. In terms of background or prerequisites, the book is nearly self-contained, assuming some familiarity with basic algebra and accounting concepts, while still reviewing important accounting principles very early on. The organization of this text has been developed to give instructors the flexibility they need.

Just to get an idea of the breadth of coverage in the seventh edition of *Fundamentals,* the following grid presents, for each chapter, some of the most significant new features as well as a few selected chapter highlights. Of course, in every chapter, opening vignettes, boxed features, in-chapter illustrated examples using real companies, and end-of-chapter material have been thoroughly updated as well.

Chapters	Selected Topics of Interest	Benefits to You
>> PART ONE Overview of Corporate Finance		
Chapter 1 Introduction to Corporate Finance	Goal of the firm and agency problems.	Stresses value creation as the most fundamental aspect of management and describes agency issues that can arise.
	Ethics, financial management, and executive compensation.	Brings in real-world issues concerning conflicts of interest and current controversies surrounding ethical conduct and management pay.
Chapter 2 Financial Statements, Taxes, and Cash Flow	*New mini-case:* Cash Flows and Financial Statements at Sunset Boards, Inc.	New case written for this edition reinforces key cash flow concepts in a small-business setting.
	Cash flow vs. earnings.	Clearly defines cash flow and spells out the differences between cash flow and earnings.
	Market values vs. book values.	Emphasizes the relevance of market values over book values.
>> PART TWO Financial Statements and Long-Term Financial Planning		
Chapter 3 Working with Financial Statements	*New section:* Expanded Du Pont analysis.	New section expands the basic Du Pont equation to better explore the interrelationships between operating and financial performance.
	New material: Du Pont analysis for real companies using data from S&P *Market Insight.*	New analysis shows students how to get and use real-world data, thereby applying key chapter ideas.
	Ratio and financial statement analysis using smaller firm data.	Uses firm data from *RMA* to show students how to actually get and evaluate financial statements benchmarks.

Coverage (continued)

Chapters	Selected Topics of Interest	Benefits to You
Chapter 4 Long-Term Financial Planning and Growth	*New mini-case:* Financial Planning at S&S Air, Inc.	New case written for this edition illustrates the importance of financial planning in a small firm.
	New material: Explanation of alternative formulas for sustainable and internal growth rates.	Explanation of growth rate formulas clears up a common misunderstanding about these formulas and the circumstances under which alternative formulas are correct.
	Thorough coverage of sustainable growth as a planning tool.	Provides a vehicle for examining the interrelationships between operations, financing, and growth.
>> PART THREE Valuation of Future Cash Flows		
Chapter 5 Introduction to Valuation: The Time Value of Money	First of two chapters on time value of money.	Relatively short chapter introduces just the basic ideas on time value of money to get students started on this traditionally difficult topic.
Chapter 6 Discounted Cash Flow Valuation	Second of two chapters on time value of money.	Covers more advanced time value topics with numerous examples, calculator tips, and Excel spreadsheet exhibits. Contains many real-world examples.
Chapter 7 Interest Rates and Bond Valuation	*New material:* "Clean" vs. "dirty" bond prices and accrued interest.	Clears up the pricing of bonds between coupon payment dates and also bond market quoting conventions.
	New material: NASD's new TRACE system and transparency in the corporate bond market.	Up-to-date discussion of new developments in fixed income with regard to price, volume, and transactions reporting.
	New material: "Make-whole" call provisions.	Up-to-date discussion of relatively new type of call provision that has become very common.
Chapter 8 Stock Valuation	*New mini-case:* Financing S&S Air's Expansion Plans with a Bond Issue.	New case written for this edition examines the debt issuance process for a small firm.
	Stock valuation	Thorough coverage of constant and non-constant growth models.
	NYSE and Nasdaq Market operations	Up-to-date description of major stock market operations
>> PART FOUR Capital Budgeting		
Chapter 9 Net Present Value and Other Investment Criteria	First of three chapters on capital budgeting.	Relatively short chapter introduces key ideas on an intuitive level to help students with this traditionally difficult topic.
	NPV, IRR, payback, discounted payback, and accounting rate of return.	Consistent, balanced examination of advantages and disadvantages of various criteria.

Chapters	Selected Topics of Interest	Benefits to You
Chapter 10 Making Capital Investment Decisions	Project cash flow.	Thorough coverage of project cash flows and the relevant numbers for a project analysis.
	Alternative cash flow definitions.	Emphasizes the equivalence of various formulas, thereby removing common misunderstandings.
	Special cases of DCF analysis.	Considers important applications of chapter tools.
Chapter 11 Project Analysis and Evaluation	*New mini-case:* Conch Republic Electronics.	New case written for this edition analyzes capital budgeting issues and complexities.
	Sources of value.	Stresses the need to understand the economic basis for value creation in a project.
	Scenario and sensitivity "what-if" analyses.	Illustrates how to actually apply and interpret these tools in a project analysis.
	Break-even analysis.	Covers cash, accounting, and financial break-even levels.
>> PART FIVE Risk and Return		
Chapter 12 Some Lessons from Capital Market History	*New section:* Geometric vs. arithmetic returns.	Discusses calculation and interpretation of geometric returns. Clarifies common misconceptions regarding appropriate use of arithmetic vs. geometric average returns.
	Capital market history.	Extensive coverage of historical returns, volatilities, and risk premiums.
	Market efficiency.	Efficient markets hypothesis discussed along with common misconceptions.
Chapter 13 Return, Risk, and the Security Market Line	Diversification, systematic and unsystematic risk.	Illustrates basics of risk and return in a straightforward fashion.
	Beta and the security market line.	Develops the security market line with an intuitive approach that bypasses much of the usual portfolio theory and statistics.
Chapter 14 Options and Corporate Finance	*New mini-case:* S&S Air's Convertible Bond.	New case written for this edition examines security issuance issues for a small firm.
	Stock options, employee stock options, and real options.	Discusses the basics of these important option types.
	Option-embedded securities.	Describes the different types of option found in corporate securities.
>> PART SIX Cost of Capital and Long-Term Financial Policy		
Chapter 15 Cost of Capital	*New discussion:* geometric vs. arithmetic growth rates.	Both approaches are used in practice. Clears up issues surrounding growth rate estimates.
	Cost of capital estimation.	Contains a complete, Web-based illustration of cost of capital for a real company.

Coverage (concluded)

Chapters	Selected Topics of Interest	Benefits to You
Chapter 16 Raising Capital	*New discussion:* Dutch auction IPOs.	Explains uniform price auctions using recent Google IPO as an example.
	New discussion: IPO "quiet periods."	Explains the SEC's quiet period rules.
	New discussion: rights vs. warrants.	Clarifies the option-like nature of rights prior to their expiration dates.
	IPO valuation.	Extensive, up-to-date discussion of IPOs, including the 1999–2000 period.
Chapter 17 Financial Leverage and Capital Structure Policy	Basics of financial leverage.	Illustrates effect of leverage on risk and return.
	Optimal capital structure.	Describes the basic trade-offs leading to an optimal capital structure.
	Financial distress and bankruptcy.	Briefly surveys the bankruptcy process.
Chapter 18 Dividends and Dividend Policy	*New mini-case:* Cost of Capital for Hubbard Computer, Inc.	New case written for this edition analyzes cost of capital estimation for a non-public firm.
	New material: Very recent survey evidence on dividend policy.	New survey results show the most important (and least important) factors considered by financial managers in setting dividend policy.
	New material: Effect of new tax laws.	Discusses implications of new, lower dividend, and capital gains rates.
	Dividends and dividend policy.	Describes dividend payments and the factors favoring higher and lower payout policies.
>> PART SEVEN Short-Term Financial Planning and Management		
Chapter 19 Short-Term Finance and Planning	Operating and cash cycles.	Stresses the importance of cash flow timing.
	Short-term financial planning.	Illustrates creation of cash budgets and potential need for financing.
Chapter 20 Cash and Liquidity Management	Float management.	Thorough coverage of float management and potential ethical issues.
	Cash collection and disbursement.	Examination of systems used by firms to handle cash inflows and outflows.
Chapter 21 Credit and Inventory Management	*New mini-case:* Piepkorn Manufacturing Working Capital Management.	New case written for this edition evaluates working capital issues for a small firm.
	Credit management	Analysis of credit policy and implementation.
	Inventory management	Brief overview of important inventory concepts.

Chapters	Selected Topics of Interest	Benefits to You
>> PART EIGHT Topics in Corporate Finance		
Chapter 22 International Corporate Finance	Foreign exchange.	Covers essentials of exchange rates and their determination.
	International capital budgeting.	Shows how to adapt basic DCF approach to handle exchange rates.
	Exchange rate and political risk.	Discusses hedging and issues surrounding sovereign risk.
>> ALTERNATE EDITION—Additional Chapters		
>> PART EIGHT Topics in Corporate Finance		
Chapter 23 Risk Management: An Introduction to Financial Engineering	Volatility and risk.	Illustrates need to manage risk and some of the most important types of risk.
	Hedging with forwards, options, and swaps.	Shows how many risks can be managed with financial derivatives.
Chapter 24 Option Valuation	Put-call parity and Black-Scholes.	Develops modern option valuation and factors influencing option values.
	Options and corporate finance.	Applies option valuation to a variety of corporate issues, including mergers and capital budgeting.
Chapter 25 Mergers and Acquisitions	*New material:* Alternatives to mergers and acquisitions.	Covers strategic alliances and joint ventures and why they are important alternatives.
	New material: Defensive tactics.	Expanded discussion of anti-takeover provisions.
	New section: Divestitures and restructurings.	Important actions such as equity carve-outs, spins-offs, and split-ups are examined.
	Mergers and acquisitions.	Develops essentials of M&A analysis, including financial, tax, and accounting issues.
Chapter 26 Leasing	*New material:* Synthetic leases	Discusses controversial practice of custom-tailored, "off-balance-sheet" financing.
	Leases and lease valuation.	Essentials of leasing, good and bad reasons for leasing, and NPV of leasing are examined.

In-Text Study Features

In addition to illustrating pertinent concepts and presenting up-to-date coverage, *Fundamentals of Corporate Finance* strives to present the material in a way that makes it coherent and easy to understand. To meet the varied needs of its intended audience, *Fundamentals of Corporate Finance* is rich in valuable learning tools and support.

CHAPTER-OPENING VIGNETTES

Vignettes drawn from real-world events introduce students to the chapter concepts. Questions about these vignettes are posed to the reader to ensure understanding of the concepts in the end-of-chapter material. For examples, see Chapter 5, page 124; Chapter 6, page 149.

COMPUTERFIELD CORPORATION
Financial Statements

Income Statement			**Balance Sheet**		
Sales	$1,000	Assets	$500	Debt	$250
Costs	800			Equity	250
Net income	$ 200	Total	$500	Total	$500

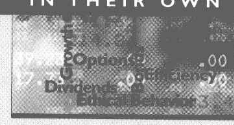
PEDAGOGICAL USE OF COLOR

This learning tool continues to be an important feature of *Fundamentals of Corporate Finance*. In almost every chapter, color plays an extensive, nonschematic, and largely self-evident role. A guide to the functional use of color is found on the endsheets of both the Annotated Instructor's Edition (AIE) and student version. For examples of this technique, see Chapter 3, page 50; Chapter 9, page 270.

IN THEIR OWN WORDS BOXES

This series of boxes are the popular articles updated from previous editions written by a distinguished scholar or practitioner on key topics in the text. Boxes include essays by Merton Miller on capital structure, Fischer Black on dividends, and Roger Ibbotson on capital market history. A complete list of "In Their Own Words" boxes appears on page xliv.

IN THEIR OWN WORDS . . .



Clifford W. Smith Jr. on Market Incentives for Ethical Behavior

>> **Ethics is a topic** that has been receiving increased interest in the business community. Much of this discussion has been led by philosophers and has focused on moral principles. Rather than review these issues, I want to discuss a complementary (but often ignored) set of issues from an economist's viewpoint. Markets impose potentially substantial costs on individuals and institutions that engage in unethical behavior. These market forces thus provide important incentives that foster ethical behavior in the business community.

At its core, economics is the study of making choices. I thus want to examine ethical behavior simply as one choice facing an individual. Economic analysis suggests that in considering an action, you identify its expected costs and benefits. If the estimated benefits exceed the estimated costs, you take the action; if not, you don't. To focus this discussion, let's consider the following specific choice: Suppose you have a contract to deliver a product of a specified quality. Would you cheat by detection, thereby reducing any incentive to misstate the firm's financial condition.

Second, the higher the sanctions imposed if cheating is detected, the less likely an individual is to cheat. Hence, a business transaction that is expected to be repeated between the same parties faces a lower probability of cheating because the lost profits from the forgone stream of future sales provide powerful incentives for contract compliance. However, if continued corporate existence is more uncertain, so are the expected costs of forgone future sales. Therefore firms in financial difficulty are more likely to cheat than financially healthy firms. Firms thus have incentives to adopt financial policies that help credibly bond against cheating. For example, if product quality is difficult to assess prior to purchase, customers doubt a firm's claims about product quality. Where quality is more uncertain, customers are only willing to pay lower prices. Such firms thus have particularly strong incentives to adopt financial policies that imply a lower probability of insolvency.

others. Ethical standards also vary across markets. For example, a payment that if disclosed in the United States would be labeled a bribe might be viewed as a standard business practice in a third-world market. The costs imposed will be higher the greater the consensus that the behavior was unethical.

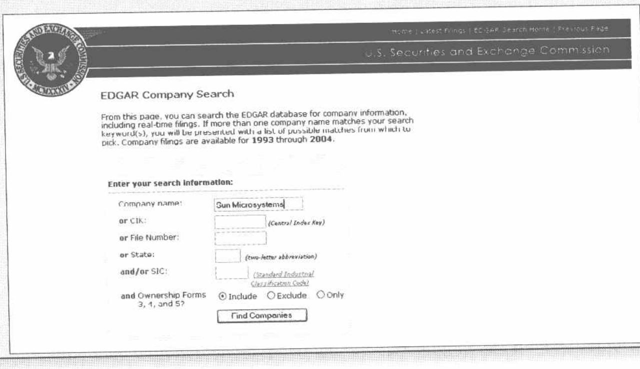
Establishing and maintaining a reputation for ethical behavior is a valuable corporate asset in the business community. This analysis suggests that a firm concerned about the ethical conduct of its employees should pay careful attention to potential conflicts among the firm's management, employees, customers, creditors, and shareholders. Consider Sears, the department store giant that was found to be charging customers for auto repairs of questionable necessity. In an effort to make the company more service oriented (in the way that competitors like Nordstrom are), Sears had initiated an across-the-board policy of commission sales. But what works in clothing and housewares does not always work the same way in the auto repair shop. A customer for a

WORK THE WEB

These boxes in the chapter material show students how to research financial issues using the Web and how to use the information they find to make business decisions. See examples in Chapter 3, page 77; Chapter 8, page 252.

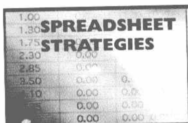
WORK THE WEB

The U.S. Securities and Exchange Commission (SEC) requires that most public companies file regular reports, including annual and quarterly financial statements. The SEC has a public site named EDGAR that makes these free reports available at www.sec.gov. We went to "Search for Company Filings," "Companies & Other Filers," and entered "Sun Microsystems"



ENHANCED! REAL-WORLD EXAMPLES

Actual events are integrated throughout the text, tying chapter concepts to real life through illustration and reinforcing the relevance of the material. Some examples tie into the chapter opening vignette for added reinforcement. See example in Chapter 5, page 133.



SPREADSHEET STRATEGIES

Using a Spreadsheet for Time Value of Money Calculations

More and more, businesspeople from many different areas (and not just finance and accounting) rely on spreadsheets to do all the different types of calculations that come up in the real world. As a result, in this section, we will show you how to use a spreadsheet to handle the various time value of money problems we presented in this chapter. We will use Microsoft Excel™, but the commands are similar for other types of software. We assume you are already familiar with basic spreadsheet operations.

As we have seen, you can solve for any one of the following four potential unknowns: future value, present value, the discount rate, or the number of periods. With a spreadsheet, there is a separate formula for each. In Excel, these are as follows:

To Find	Enter This Formula
Future value	= FV (rate,nper,pmt,pv)
Present value	= PV (rate,nper,pmt,fv)
Discount rate	= RATE (nper,pmt,pv,fv)
Number of periods	= NPER (rate,pmt,pv,fv)

In these formulas, pv and fv are present and future value, nper is the number of periods, and rate is the discount, or interest, rate.

There are two things that are a little tricky here. First, unlike a financial calculator, the spreadsheet requires that the rate be entered as a decimal. Second, as with most financial calculators, you have to put a negative sign on either the present value or the future value to solve for the rate or the number of periods. For the same reason, if you solve for a present value, the answer will have a negative sign unless you input a negative future value. The same is true when you compute a future value.

To illustrate how you might use these formulas, we will go back to an example in the chapter. If you invest $25,000 at 12 percent per year, how long until you have $50,000? You might set up a spreadsheet like this:

	A	B	C	D	E	F	G	H
1								
2	Using a spreadsheet for time value of money calculations							
3								
4	If we invest $25,000 at 12 percent, how long until we have $50,000? We need to solve							
5	for the unknown number of periods, so we use the formula NPER(rate, pmt, pv, fv).							
6								
7	Present value (pv):	$25,000						
8	Future value (fv):	$50,000						
9	Rate (rate):	0.12						
10								
11	Periods:	6.1162554						
12								

SPREADSHEET STRATEGIES

This feature either introduces students to Excel or helps them brush up on their Excel spreadsheet skills, particularly as they relate to corporate finance. This feature appears in self-contained sections and shows students how to set up spreadsheets to analyze common financial problems—a vital part of every business student's education. For examples, see Chapter 6, page 156; Chapter 7, page 200.

CALCULATOR HINTS

These brief calculator tutorials have been added in selected chapters to help students learn or brush up on their financial calculator skills. These complement the just-mentioned Spreadsheet Strategies. For examples, see Chapter 5, page 129; Chapter 6, page 155.

You solve present value problems on a financial calculator just like you do future value problems. For the example we just examined (the present value of $1,000 to be received in three years at 15 percent), you would do the following:

Enter	3	15		1,000	
	N	I/Y	PMT	PV	FV
Solve for				−657.50	

Notice that the answer has a negative sign; as we discussed above, that's because it represents an outflow today in exchange for the $1,000 inflow later.

CONCEPT BUILDING

Chapter sections are intentionally kept short to promote a step-by-step, building block approach to learning. Each section is then followed by a series of short concept questions that highlight the key ideas just presented. Students use these questions to make sure they can identify and understand the most important concepts as they read. See Chapter 1, page 4; Chapter 3, page 52 for examples.

SUMMARY TABLES

These tables succinctly restate key principles, results, and equations. They appear whenever it is useful to emphasize and summarize a group of related concepts. For examples, see Chapter 2, page 32; Chapter 7, page 198.

LABELED EXAMPLES

Separate numbered and titled examples are extensively integrated into the chapters as indicated below. These examples provide detailed applications and illustrations of the text material in a step-by-step format. Each example is completely self-contained so students don't have to search for additional information. Based on our classroom testing, these examples are among the most useful learning aids because they provide both detail and explanation. See Chapter 2, page 22; Chapter 4, page 102.

EXAMPLE 2.1 >> **Building the Balance Sheet**

A firm has current assets of $100, net fixed assets of $500, short-term debt of $70, and long-term debt of $200. What does the balance sheet look like? What is shareholders' equity? What is net working capital?

In this case, total assets are $100 + 500 = $600 and total liabilities are $70 + 200 = $270, so shareholders' equity is the difference: $600 − 270 = $330. The balance sheet would thus look like:

Assets		Liabilities and Shareholders' Equity	
Current assets	$100	Current liabilities	$ 70
Net fixed assets	500	Long-term debt	200
		Shareholders' equity	330
Total assets	$600	Total liabilities and shareholders' equity	$600

Net working capital is the difference between current assets and current liabilities, or $100 − 70 = $30.

KEY TERMS

Key Terms are printed in bold type and defined within the text the first time they appear. They also appear in the margins with definitions for easy location and identification by the student. See Chapter 1, page 4; Chapter 3, page 49 for examples.

EXPLANATORY WEB LINKS

These Web links are provided in the margins of the text. They are specifically selected to accompany text material and provide students and instructors with a quick way to check for additional information using the Internet. See Chapter 5, page 126; Chapter 7, page 195.

Assets are normally listed on the balance sheet in order of decreasing liquidity, meaning that the most liquid assets are listed first. Current assets are relatively liquid and include cash and those assets that we expect to convert to cash over the next 12 months. Accounts receivable, for example, represents amounts not yet collected from customers on sales already made. Naturally, we hope these will convert to cash in the near future. Inventory is probably the least liquid of the current assets, at least for many businesses.

Fixed assets are, for the most part, relatively illiquid. These consist of tangible things

Annual and quarterly financial statements (and lots more) for most public U.S. corporations can be found in the EDGAR database at www.sec.gov.

KEY EQUATIONS

Called out in the text, key equations are identified by an equation number. The list in Appendix B shows the key equations by chapter, providing students with a convenient reference. For examples, see Chapter 5, page 126; Chapter 10, page 313.

HIGHLIGHTED CONCEPTS

Throughout the text, important ideas are pulled out and presented in a highlighted box—signaling to students that this material is particularly relevant and critical for their understanding. See Chapter 4, page 109; Chapter 7, page 205.

Terms of a Bond Corporate bonds usually have a face value (that is, a denomination) of $1,000. This is called the *principal value* and it is stated on the bond certificate. So, if a corporation wanted to borrow $1 million, 1,000 bonds would have to be sold. The par value (that is, initial accounting value) of a bond is almost always the same as the face value, and the terms are used interchangeably in practice.

Corporate bonds are usually in **registered form**. For example, the indenture might read as follows:

> **Interest is payable semiannually on July 1 and January 1 of each year to the person in whose name the bond is registered at the close of business on June 15 or December 15, respectively.**

This means that the company has a registrar who will record the ownership of each bond and record any changes in ownership. The company will pay the interest and principal by check mailed directly to the address of the owner of record. A corporate bond may be registered and have attached "coupons." To obtain an interest payment, the owner must separate a coupon from the bond certificate and send it to the company registrar (the paying agent).

registered form
The form of bond issue in which the registrar of the company records ownership of each bond; payment is made directly to the owner of record.

CHAPTER SUMMARY AND CONCLUSIONS

Every chapter ends with a concise, but thorough, summary of the important ideas—helping students review the key points and providing closure to the chapter. See Chapter 1, page 17; Chapter 5, page 144.

Chapter Review and Self-Test Problem

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2.1 Cash Flow for Mara Corporation This problem will give you some practice working with financial statements and figuring cash flow. Based on the following information for Mara Corporation, prepare an income statement for 2005 and balance sheets for 2004 and 2005. Next, following our U.S. Corporation examples in the chapter, calculate cash flow from assets, cash flow to creditors, and cash flow to stockholders for Mara for 2005. Use a 35 percent tax rate throughout. You can check your answers against ours, found in the following section.

	2004	2005
Sales	$4,203	$4,507
Cost of goods sold	2,422	2,633
Depreciation	785	952
Interest	180	196
Dividends	225	250
Current assets	2,205	2,429
Net fixed assets	7,344	7,650
Current liabilities	1,003	1,255
Long-term debt	3,106	2,085

Answer to Chapter Review and Self-Test Problem

2.1 In preparing the balance sheets, remember that shareholders' equity is the residual. With this in mind, Mara's balance sheets are as follows:

CHAPTER REVIEW AND SELF-TEST PROBLEMS

Appearing after the Summary and Conclusion, each chapter includes a Chapter Review and Self-Test Problem section. These questions and answers allow students to test their abilities in solving key problems related to the chapter content and provide instant reinforcement. See Chapter 6, page 179; Chapter 10, page 321.

CONCEPTS REVIEW AND CRITICAL THINKING QUESTIONS

This successful end-of-chapter section facilitates your students' knowledge of key principles, as well as intuitive understanding of the chapter concepts. A number of the questions relate to the chapter-opening vignette—reinforcing student critical-thinking skills and the learning of chapter material. For examples, see Chapter 1, page 18; Chapter 3, page 82.

Concepts Review and Critical Thinking Questions

1. **Liquidity** What does liquidity measure? Explain the trade-off a firm faces between high liquidity and low liquidity levels.
2. **Accounting and Cash Flows** Why is it that the revenue and cost figures shown on a standard income statement may not be representative of the actual cash inflows and outflows that occurred during a period?
3. **Book Values versus Market Values** In preparing a balance sheet, why do you think standard accounting practice focuses on historical cost rather than market value?
4. **Operating Cash Flow** In comparing accounting net income and operating cash flow, name two items you typically find in net income that are not in operating cash flow. Explain what each is and why it is excluded in operating cash flow.
5. **Book Values versus Market Values** Under standard accounting rules, it is possible for a company's liabilities to exceed its assets. When this occurs, the owners' equity is negative. Can this happen with market values? Why or why not?
6. **Cash Flow from Assets** Suppose a company's cash flow from assets was negative for a particular period. Is this necessarily a good sign or a bad sign?