





# **PREFACE**

# from the Authors

hen 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 10 years later, we would be working on a sixth 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, Polish, Portuguese, and Spanish language editions, and an entirely separate book, *Essentials of Corporate Finance*, now in its third 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 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



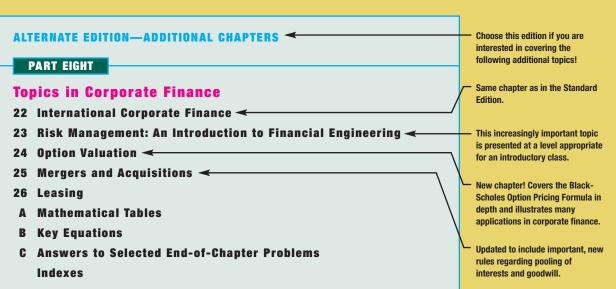
# COVERAGE

his 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.



#### PART SIX **Cost of Capital and Long-Term Financial Policy** 15 Cost of Capital ← Includes a completely Web-based illustration of the cost-of-capital 16 Raising Capital <del>←</del> calculation. 17 Financial Leverage and Capital Structure Policy Provides key developments in the IPO market such as the Internet 18 Dividends and Dividend Policy "bubble," the role of "lockup" agreements, and current thinking PART SEVEN on IPO underpricing. **Short-Term Financial Planning and Management** 19 Short-Term Finance and Planning ← Presents a general survey of short-term financial management, 20 Cash and Liquidity Management which is useful when time does not permit a more in-depth **Appendix 20A Determining the Target Cash Balance** treatment. 21 Credit and Inventory Management **Appendix 21A More on Credit Policy Analysis** PART EIGHT **Topics in Corporate Finance** 22 International Corporate Finance Covers important issues in international finance, including **A Mathematical Tables** the introduction of the euro. **B** Key Equations C Answers to Selected End-of-Chapter Problems

Indexes



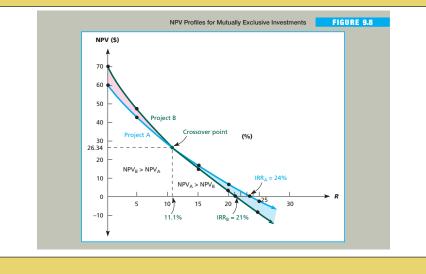
# PEDAGOGY

n 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 the 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 129; Chapter 6, page 157.

## 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 58; Chapter 9, page 295.



# 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

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

# In Their Own Words . .

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

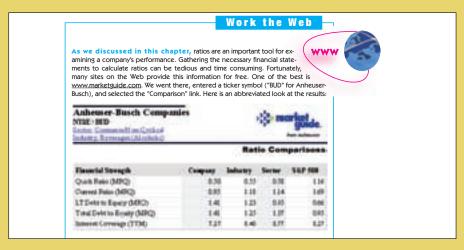
financially healthy firms. Firms thus have incentives to adopt financial policies that help credibly bond against cheating. For example, if product quality is difficult to assess prior to purchase, customers doubt a firm's claims about product quality. Where quality is more uncertain, customers are only willing to pay lower prices. Such firms thus have particularly strong incentives to adopt financial policies that imply a lower probability of insolvency.

Third, the expected costs are higher if information about cheating is rapidly and widely distributed to potential future customers. Thus information services like Consumer Reports, which monitor and report on product quality, help deter cheating. By lowering the

list of "In Their Own Words" boxes appears on page xxxii.

## New! Work the Web

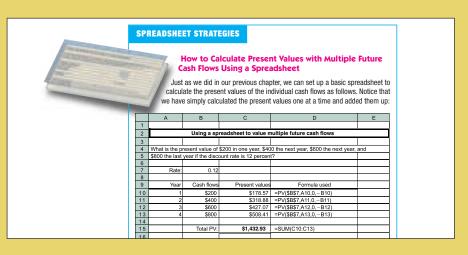
These boxes in the chapter material show students how to research financial issues using the Web and how to use the information they find to make business decisions. See examples in Chapter 3, page 81; Chapter 8, page 262.



**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 138.

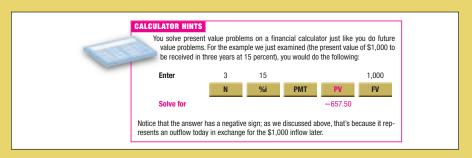
## **Spreadsheet Strategies**

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 164; Chapter 7, page 210.

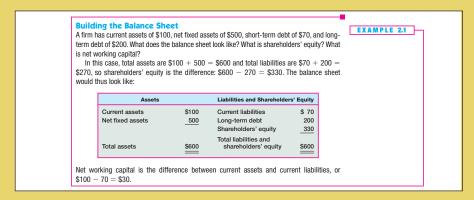
**New!** Calculator Hints These brief calculator tutorials have been added in selected chapters to help students learn or brush up on their financial calculator skills. These complement the just-mentioned Spreadsheet Strategies. For examples, see Chapter 5, page 140; Chapter 6, page 168.



**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 12; Chapter 3, page 73 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 38; Chapter 7, page 208.

**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 25; Chapter 4, page 116.



**Key Terms** Key Terms are printed in blue 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 6; Chapter 3, page 59 for examples.

**New!** 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 132; Chapter 7, page 218.

Want detailed information on the amount and terms of the debt issued by a particular firm?
Check out their latest financial statements by searching SEC filings at www.sec.gov.

A positive covenant is a "thou shalt" type of covenant. It specifies an action that the company agrees to take or a condition the company must abide by. Here are some examples:

- The company must maintain its working capital at or above some specified minimum level.
- 2. The company must periodically furnish audited financial statements to the lender.
- 3. The firm must maintain any collateral or security in good condition.

This is only a partial list of covenants; a particular indenture may feature many different ones.

**Key Equations** Called out in the text, key equations are identified by a blue 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 131; Chapter 10, page 332.

**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 114; Chapter 7, page 214.

The sustainable growth rate is a very useful planning number. What it illustrates is the explicit relationship between the firm's four major areas of concern: its operating efficiency as measured by profit margin, its asset use efficiency as measured by total asset turnover, its dividend policy as measured by the retention ratio, and its financial policy as measured by the debt-equity ratio.

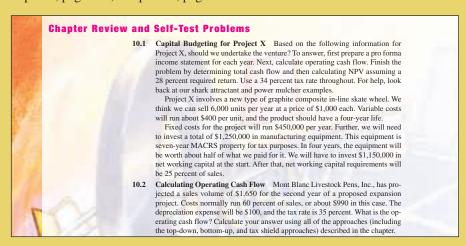
Given values for all four of these, there is only one growth rate that can be achieved. This is an important point, so it bears restating:

If a firm does not wish to sell new equity and its profit margin, dividend policy, financial policy, and total asset turnover (or capital intensity) are all fixed, then there is only one possible growth rate.

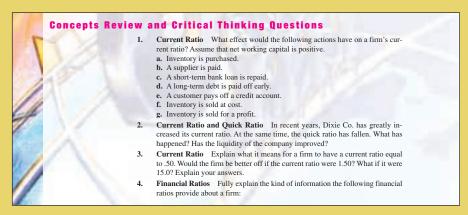
As we described early in this chapter, one of the primary benefits of financial planning is that it ensures internal consistency among the firm's various goals. The concept of the sustainable growth rate captures this element nicely. Also, we now see how a financial planning model can be used to test the feasibility of a planned growth rate. If

**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 20; Chapter 5, page 150.

**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 187; Chapter 10, page 340.



**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 20; Chapter 3, page 86.



# **End-of-Chapter Questions and Problems**

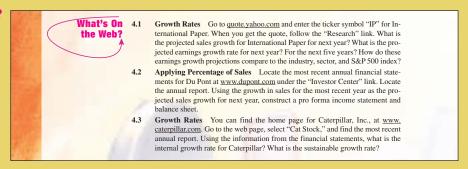
We have found that many students learn better when they have plenty of opportunity to practice; therefore, we provide extensive end-of-chapter questions and problems. The end-of-chapter support greatly exceeds typical introductory textbooks. The questions and problems are segregated into three learning levels: Basic, Intermediate, and Challenge. All problems are fully annotated so that students and instructors can

c. If you apply the NPV criterion, which investment will you choose? Why? (continued) d. If you apply the IRR criterion, which investment will you choose? Why? e. If you apply the profitability index criterion, which investment will you f. Based on your answers in (a) through (e), which project will you finally choose? Why? NPV and Discount Rates An investment has an installed cost of \$412,670. The cash flows over the four-year life of the investment are projected to be \$212,817, \$153,408, \$102,389, and \$72,308. If the discount rate is zero, what is the NPV? If the discount rate is infinite, what is the NPV? At what discount rate is the NPV just equal to zero? Sketch the NPV profile for this investment based on these three points NPV and the Profitability Index If we define the NPV index as the ratio of NPV to cost, what is the relationship between this index and the profitability (Questions 19-20) index? Cash Flow Intuition A project has an initial cost of I, has a required return of R, and pays C annually for N years. a. Find C in terms of I and N such that the project has a payback period just equal to its life. **b.** Find C in terms of I, N, and R such that this is a profitable project according to the NPV decision rule. c. Find C in terms of I, N, and R such that the project has a benefit-cost ratio of (Questions 21-23) Payback and NPV An investment under consideration has a payback of seven years and a cost of \$320,000. If the required return is 12 percent, what is the worst-case NPV? The best-case NPV? Explain. Multiple IRRs This problem is useful for testing the ability of financial calculators and computer software. Consider the following cash flows. How many different IRRs are there (hint: search between 20 percent and 70 percent)? When

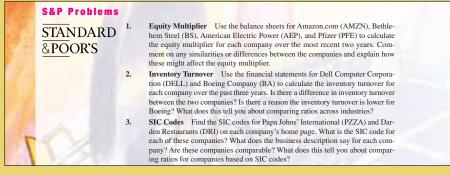
readily identify particular types. Answers to selected end-of-chapter material appear in Appendix C. See Chapter 6, page 191; Chapter 9, page 305.

#### New! What's on the Web?

These end-of-chapter activities show students how to use and learn from the vast amount of financial resources available on the Internet. See examples in Chapter 1, page 22; Chapter 4, page 126.



New! S&P Market Insight
Problems Most chapters
include two or three new
end-of-chapter problems
that require the use of the
Educational Version of
Market Insight, Standard &
Poor's powerful and wellknown Compustat®
database. These problems
provide an easy, online way



for students to incorporate current, real-world data into their learning. See examples in Chapter 3, page 92; Chapter 4, page 125.



# **COMPREHENSIVE TEACHING AND LEARNING PACKAGE**

This edition of *Fundamentals* has more options than ever in terms of the textbook, instructor supplements, student supplements, and multimedia products. Mix and match to create a package that is perfect for your course!

**Textbook** As with the previous edition, we are offering two versions of this text, both of which are packaged with an exciting student CD-ROM (see description under "Student Supplements"):

- 0072469749 Standard Edition (22 Chapters)
- 0072469870 Alternate Edition (26 Chapters)

# **Instructor Supplements**

#### Annotated Instructor's Edition (AIE) ISBN 0072469870

All your teaching resources are tied together here! This handy resource contains extensive references to the Instructor's Manual regarding lecture tips, ethics notes, Internet references, international notes, and the availability of teaching PowerPoint slides. The lecture tips vary in content and purpose—providing an alternative perspective on a subject, suggesting important points to be stressed, giving further examples, or recommending other readings. The ethics notes present background on topics that motivate classroom discussion of finance-related ethical issues. Other annotations include notes for the Real-World Tips, Concept Questions, Self-Test Problems, End-of-Chapter Problems, Videos, references to the *Cases in Finance* text by Jim DeMello; and answers to the end-of-chapter problems.

#### Instructor's Manual ISBN 0072469900

prepared by Cheri Etling, University of Tampa

A great place to find new lecture ideas! The IM has three main sections. The first section contains a chapter outline and other lecture materials designed for use with the Annotated Instructor's Edition. The annotated outline for each chapter includes lecture tips, real-world tips, ethics notes, suggested PowerPoint slides, and when appropriate, a video synopsis. Detailed solutions for all end-of-chapter problems appear in section two, with selected transparency masters in section three.

#### Test Bank ISBN 0072469919

prepared by David Kuipers, Texas Tech University

Great format for a better testing process! The Sixth Edition Test Bank has been updated and reorganized to closely link with the text material. Each chapter is divided into four parts. Part I contains questions that test the understanding of the key terms in the book. Part II includes questions patterned after the learning objectives, concept questions, chapter-opening vignettes, boxes, and highlighted phrases. Part III contains multiple-choice and true/false problems patterned after the end-of-chapter questions, in basic,

intermediate, and challenge levels. Part IV provides essay questions to test problemsolving skills and more advanced understanding of concepts.

# Computerized Testing Software ISBN 0072469862 (Windows)

Create your own tests in a snap! This software includes an easy-to-use menu system which allows quick access to all the powerful features available. The Keyword Search option lets you browse through the question bank for problems containing a specific word or phrase. Password protection is available for saved tests or for the entire database. Questions can be added, modified, or deleted.

## **Transparency Acetates ISBN 0072469919**

prepared by Cheri Etling, University of Tampa

Add visuals to your lectures! This package includes over 300 Teaching Transparencies for use with this text. The acetates are supplemental exhibits and examples, in addition to selected figures and tables from the text.

# PowerPoint Presentation System ISBN 0072469803

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Customize our content for your course! This presentation has been thoroughly revised to include more lecture-oriented slides, as well as exhibits and examples both from the book and from outside sources. Applicable slides have Web links that take you directly to specific Internet sites, or a spreadsheet link to show an example in Excel. You can also go to the Notes Page function for more tips in presenting the slides. If you already have PowerPoint installed on your PC, you have the ability to edit, print, or rearrange the complete transparency presentation to meet your specific needs.

#### Instructor's CD-ROM ISBN 0072469927

Keep all the supplements in one place! This CD contains all the necessary supplements—Instructor's Manual, Test Bank, and PowerPoint—all in one useful product in an electronic format.

#### Videos ISBN 0072469773

Completely new set of videos on hot topics! McGraw-Hill/Irwin produced a series of finance videos that are 10-minute case studies on topics such as Financial Markets, Careers, Rightsizing, Capital Budgeting, EVA (Economic Value Added), Mergers and Acquisitions, and International Finance.

## **Student Supplements**

#### **New! Self-Study Software CD-ROM**

Packaged free with every new copy of the book! This CD-ROM for students contains many features to help students learn corporate finance:

• Self-Study software was prepared by David Kuipers, Texas Tech University. With the self-study program, students can test their knowledge of one chapter or a number of chapters by using questions written specifically for this text. There are at least 100 questions per chapter.

## Student Problem Manual ISBN 0072469765

prepared by Thomas Eyssell, University of Missouri-St. Louis

Need additional reinforcement of the concepts? This valuable resource provides students with additional problems for practice. Each chapter begins with Concepts for Review, followed by Chapter Highlights. These re-emphasize the key terms and concepts in the chapter. A short Concept Test, averaging 10 questions and answers, appears next. Each chapter concludes with additional problems for the student to review. Answers to these problems appear at the end of the Student Problem Manual.

#### Ready Notes ISBN 0072469757

Improved listening and attention = improved retention! This innovative student supplement, first introduced by Irwin, provides students with an inexpensive note-taking system that contains a reduced copy of every transparency in the acetate package. With a copy of each transparency in front of them, students can listen and record your comments about each point instead of hurriedly copying the transparency into their note-books. Ask your McGraw-Hill/Irwin representative about packaging options.

# **Technology Products**

#### RWJ Home Page http://www.mhhe.com/rwj

Invaluable resource! This home page now includes a variety of features:

- **Teaching Support** The basic page includes basic product and author information, an instructor resource section to find current events in finance and teaching tips, and a student resources section with quizzes and other interesting links related to corporate finance.
- **Student Support** Continue testing your knowledge of corporate finance by taking quizzes posted on the site. Also, learn about the companies you read about in the book by linking to their homepages.
- On-line Learning Center The On-line Learning Center (OLC) under the Instructor Resource heading is a password-protected site for adopters of the book only. This site includes the instructor's supplements in an easy on-line format. Go to this site to register for the password.

#### PageOut! Preview us at www.mhhe.com/pageout

Create a Web page for your course using our resources! This Web page generation software, free to adopters, is designed to help professors develop Web pages for their courses. In just a few minutes, a rich Web page will be created for you. Simply type your material into the template provided, and PageOut instantly converts it to HTML—a universal Web language. Next, choose your favorite of 16 easy-to-navigate designs, and your Web homepage is created, complete with an online syllabus, lecture notes, and bookmarks. You can even include a separate instructor page and an assignment page. PageOut offers enhanced point-and-click features, including a Syllabus Page that applies real-world links to original text material, an automated grade book, and a discussion board where instructors and your students can exchange questions and post announcements.