# Corporate Finance

Ross

Westerfield

**Jaffe** 



#### FIFTH EDITION

## Corporate Finance

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To our family and friends with love and gratitude.

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### **Preface**

The teaching and the practicing of corporate finance are more challenging and exciting than ever before. The last decade has seen fundamental changes in financial markets and financial instruments. Scarcely a day goes by without an announcement in the financial press about such matters as takeovers, junk bonds, financial restructuring, initial public offerings, bankruptcy, and derivatives. The world's financial markets are more integrated than ever before. Both the theory and practice of corporate finance have been moving ahead with uncommon speed, and our teaching must keep pace.

These developments place new burdens on the teaching of corporate finance. On one hand, the changing world of finance makes it more difficult to keep materials up to date. On the other hand, the teacher must distinguish the permanent from the temporary and avoid the temptation to follow fads. Our solution to this problem is to emphasize the modern fundamentals of the theory of finance and to make the theory come to life with contemporary examples. Increasingly, many of these examples are outside the United States. All too often the beginning student views corporate finance as a collection of unrelated topics that are unified largely because they are bound together between the covers of one book. As in the previous editions, our aim is to present corporate finance as the working of a small number of integrated and powerful intuitions.

#### THE INTENDED AUDIENCE OF THIS BOOK

This book has been written for the introductory courses in corporate finance at the MBA level and for intermediate in many undergraduate programs. Some instructors will find our text appropriate for the introductory course at the undergraduate level as well.

We assume that most students either will have taken or will be concurrently enrolled in courses in accounting, statistics, and economics. This exposure will help students understand some of the more difficult material. However, the book is self-contained, and a prior knowledge of these areas is not essential. The only mathematics prerequisite is basic algebra.

#### New to the Fifth Edition

- A new discussion on real-world betas and the cost of equity capital in Chapter 12.
- An expanded discussion of the new evidence on efficient markets in Chapter 13.
- New treatment on why firms choose different capital structures: the case of Marshall Industries and Edison International in Chapter 16.

- A new section on private equity markets in Chapter 19.
- New data on the direct costs of issuing new debt in Chapter 20.
- A new Chapter 22 titled "Options and Corporate Finance: Extensions and Applications."
- A new case on how derivatives trading contributed to the financial distress of Metallgesellschaft in Chapter 25.
- · Twenty-five percent new and updated problems and cases.
- New "In Your Own Words" boxes in Chapters 16, 18, and 31.
- New minicases in the end-of-chapter problem sets of Chapters 7, 12, and 30.

#### ATTENTION TO PEDAGOGY

Keeping the theory and concepts current and up-to-date is only one phase of developing a corporate finance text. To be an effective teaching tool, the text must present the theory and concepts in a coherent way that can be easily learned. With this in mind, we have included several study features throughout the chapter:

- Concept Questions. Included after each major section in a chapter, Concept
  Questions point to essential material and allow students to test their recall and comprehension before moving forward.
- Key Terms. Students will note that important words are highlighted in boldface type
  the first time they appear. They are also listed at the end of the chapter along with
  the page number on which they first appear. New words appear in italics when
  they are first mentioned. Both key terms and new words are defined in the glossary
  at the end of the text.
- *Demonstration problems*. We have provided worked-out examples throughout the text to give students a clear understanding of the logic and structure of the solution process. These examples are clearly called out in the text.
- *Highlighted concepts*. Throughout the text, important ideas are pulled out and presented in a blue box—signaling to students that this material is particularly relevant and critical for their understanding.
- *Numbered Equations*. Key equations are numbered and listed on the back end sheets for easy reference.
- In Their Own Words boxes. Located throughout the Fifth Edition, this unique series consists of articles written by distinguished scholars or practitioners on key topics in the text.
- Other boxed material. Interesting concepts and topics are expanded in boxes.
- Cases. There are 10 case studies that are highlighted in the Fifth Edition that present situations with real companies and how they rationalized the decisions they made to solve various problems. They provide extended examples of the material covered in the chapter. The cases are highlighted in blue in the detailed Table of Contents.

The end-of-chapter material reflects and builds on the concepts learned from the chapter and study features:

- Summary and Conclusions. The numbered summary provides a quick review of key concepts in the chapter.
- Key Terms. A list of the boldfaced key terms with page numbers is included for easy reference.
- Suggested Readings. Each chapter is followed by a short, annotated list of books and articles to which interested students can refer for additional information.

- Questions and Problems. Because problems are so critical to a student's learning, they have been revised and thoroughly reviewed and accuracy-checked. The problem sets are graded for difficulty, moving from easier problems intended to build confidence and skill to more difficult problems designed to challenge the enthusiastic student. Problems have been grouped according to the concepts they test on. Additionally, we have tried to make the problems in the critical "concept" chapters, such as those on value, risk, and capital structure, especially challenging and interesting. We provide answers to selected problems in Appendix B at the end of the book.
- *Minicase*. This new end-of-chapter feature, located in Chapters 7, 12, and 30, parallels the Cases found in various chapters. These Minicases apply what is learned in a number of chapters to real-world types of scenario. After presenting the facts, the student is given guidance in rationalizing a sound business decision.

#### SUPPLEMENT PACKAGE

As with the text, developing supplements of extraordinary quality and utility was the primary objective. Each component in the supplement package underwent extensive review and revision.

#### The Wall Street Journal Edition

Through a unique arrangement with Dow Jones, the price of the special WSJ version of the text includes a 10-week subscription to this business periodical. Please contact your Irwin/McGraw-Hill representative for ordering information.

#### Instructor's Manual

Prepared by Miranda Lam Detzler, University of Massachusetts–Boston, this instructor's tool has been thoroughly revised and updated. Each chapter includes a list of transparencies/PowerPoint slides, a brief chapter outline, an introduction, and an annotated outline. The annotated outline contains references to the transparencies/PowerPoint slides, additional explanations and examples, and teaching tips.

#### PowerPoint Presentation System

This presentation system was developed in conjunction with the Instructor's Manual by the same author, allowing for a complete and integrated teaching package. These slides contain useful outlines and summaries and exhibits from the text. Packaged with the PowerPoint Viewer, you can display the entire transparency package that accompanies this edition. 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.

#### Test Bank

The Test Bank, prepared by David Burnie, Western Michigan University, includes an average of 35 multiple-choice questions and problems per chapter, and five essay questions per chapter. Each question is labeled with the level of difficulty and includes a page reference to the main text. About 30–40 percent of these problems are new or revised.

#### Computerized Testing Software

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. Available in Windows and Mac versions.

#### **TeleTest**

Irwin/McGraw-Hill's free customized exam preparation service! Simply choose your desired questions from the Test Bank and call Irwin/McGraw-Hill College New Media at our toll-free number. Test and answer keys are printed on a laser printer according to the specifications provided and mailed to you.

#### Solutions Manual

The Solutions Manual, prepared by Suh-Pyng Ku, University of Southern California, contains worked-out solutions for all of the problems and has been thoroughly reviewed for accuracy. The Solutions Manual is available to be purchased for your students.

#### Student Problem Manual

Written by Robert C. Hanson, Eastern Michigan University, the Student Problem Manual is a direct companion to the text. It is uniquely designed to involve the student in the learning process. Each chapter contains a Mission Statement, an average of 20 fill-in-the-blank Concept Test questions and answers, and an average of 15 problems and worked-out solutions. This product can be purchased separately or packaged with the text.

#### Financial Analysis Spreadsheet Templates (F.A.S.T.)

Available in Excel, F.A.S.T. provides students with 45 templates tied to the specific problems in the text. Students gain experience working with spreadsheets and solving financial problems.

#### **ACKNOWLEDGMENTS**

The plan for developing this edition began with a number of our colleagues who had an interest in the book and regularly teach the MBA introductory course. We integrated their comments and recommendations throughout the Fifth Edition. Contributors to this edition include:

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Over time, many others have contributed their time and expertise to the development and writing of this text. We extend our thanks once again for their assistance and countless insights.

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Over the past three years, readers have provided assistance by detecting and reporting errors. Our goal is to offer the best textbook available on the subject, so this information was invaluable as we prepared the fifth edition. We want to ensure that all future editions are error-free and therefore we will offer \$10 per arithmetic error to the first individual reporting it. Any arithmetic error resulting in subsequent errors will be counted double. All errors should be mailed to the following address: Professor Randolph W. Westerfield, The Marshall School of Business, University of Southern California, University Park, Los Angeles, CA 90089.

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Finally, we wish to thank our families and friends, Carol, Kate, Jon, Jan, Mark, and Lynne for their forbearance and help.

Stephen A. Ross Randolph W. Westerfield Jeffrey F. Jaffe

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