

CORPORATE FINANCE

Fourth Edition



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CORPORATE FINANCE

F o u r t h E d i t i o n

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To our families and friends with love and gratitude.

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Preface

The teaching and the practicing of corporate finance have become more challenging than ever before. The last several years have 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. 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. 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 first and second 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.

Changes in the Fourth Edition

All of the examples, tables, and figures in the text have been edited to include the most up-to-date revisions in laws, regulations, and data. In addition, the following specific changes have been made.

- We have included a new appendix to Chapter 10 that discusses the recent controversy surrounding a 1993 *Journal of Finance* paper by Fama and French.
- A discussion of share repurchases is now included in Chapter 18.
- An expanded discussion on IPO activity, including a figure that outlines the steps in a new issue, is in Chapter 19.
- The Altman bankruptcy prediction model is now included in Chapter 30.
- New research on inefficient markets, including the long run return evidence on IPO's is now included in Chapter 13.
- A new appendix showing the statement of cash flows is now part of Chapter 2.
- An expanded treatment of derivatives and hedging and a new section on swaps is included in Chapter 24.
- The discussion of capital structure in Chapter 16 now includes new thinking on inflation and growth opportunities.
- All of the cases have been updated.
- Several new "In Your Own Words" boxes are included.
- There are now about 40 percent more end-of-chapter problems.

Attention to Pedagogy

We see three keys to good pedagogy in a corporate finance text: (1) extensive examples, questions, and problems; (2) consistency in the level of difficulty; and (3) conceptual coherence.

There is room for both easy and difficult textbooks in corporate finance. Of course, good textbooks should not shift haphazardly from difficult to easy, and vice versa. Our objective is to write a text that is consistently moderate in difficulty. Our book is designed for two audiences—the MBA and the intermediate undergraduate. Therefore our objective has been to write a book with sufficient flexibility to be taught to both of these audiences. We have written the core material on value, risk, capital budgeting, and capital structure at a consistently moderate level of difficulty. Some chapters can be omitted without loss of continuity for a more introductory-level treatment. More specialized chapters, such as those on options, warrants and convertibles, and mergers and acquisitions, may be covered in more advanced courses.

We have found that many textbooks lack conceptual coherence. We attempt to use consistently the intuitions of arbitrage, net present value, efficient markets, and options throughout the book. However, we have also attempted to enliven some of the conceptual material by including the recent results of modern financial research. This research has at times raised more questions than answers; therefore we have presented some of the puzzles, anomalies, and unresolved questions of corporate finance. We hope that this will pique the curiosity of the students and motivate them to work harder to grasp the complexities of modern corporate finance.

Study Features

Getting 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:

1. *Concept Questions.* After each major section in a chapter is a unique learning tool called “Concept Questions.” Concept Questions point to essential material and allow students to test their recall and comprehension periodically.
2. *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.
3. *Demonstration problems.* Throughout the text we have provided worked-out examples to give students a clear understanding of the logic and structure of the solution process.
4. *Boxed material.* Interesting concepts and topics are examined and expanded in boxes.
5. *Equations.* Key equations are highlighted in color for easy reference.
6. *Problems Sets.* Because problems are so critical to a student’s learning, we have extensively revised and rewritten the sets at the end of each chapter. The refined problems have been thoroughly reviewed and class-tested. 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 at the end of the book.
7. *Enumerated Chapter Summaries.* At the end of each chapter a numbered summary provides a quick review of key concepts in the chapter.
8. *Suggested Readings.* Each chapter is followed by a short, annotated list of books and articles to which interested students can refer for additional information.

Supplements

As with the text, developing supplements of extraordinary quality and utility was the primary objective. Each component in the supplements package underwent extensive review and revision. As a result, the package contains several features not offered with any other corporate finance text.

Instructor’s Manual

Lecture Notes with ideas or comments on context and teaching, up-to-date practical examples, selected equations, and suggestions for handouts and transparencies to use with your lectures. Prepared by Kirt Butler, Michigan State University, the *Instructor’s Manual* includes:

Supplemental Problems in addition to those in the text are offered for use during lectures or for testing.

Answers to the Text Problems and Concept Questions are provided.

A *Computer Section* describes how to use *Spreadsheet Models for Corporate Finance* offered free to adopters of the text. It offers suggestions on classroom use of the 20 Lotus 1-2-3 worksheets and tips on good spreadsheet techniques. New to this edition is a pull-out student manual that guides the software user through the models. It provides additional assistance to that already included on the disk.

Test Bank

Prepared by David Burnie, Western Michigan University, the Test Bank includes over 800 multiple-choice questions and problems—approximately 30 per chapter.

Irwin's Computerized Testing Software

This advanced-feature test generator allows you to add and edit questions; save and reload tests; create up to 99 different versions of each test; attach graphics to questions; import and export ASCII files; and select questions based on type, level of difficulty, or keyword. This software provides password protection of saved tests and question databases, and can run on a network.

TeleTest

IRWIN's *free* customized exam preparation service! Simply choose your desired questions from the Test Bank, and call IRWIN's Educational Software Services (ESS) at **1-800-331-5094**. Within 24 hours of receiving your order, ESS will send by first-class mail a laser-printed master test with answer key to you.

Student Problem Manual

Written by Robert Hanson, San Diego State 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 Chapter Mission Statement, 15 problems and worked-out solutions, and 15–20 fill-in Concept Test questions and answers.

Software

Provided free to adopters, *Spreadsheet Models for Corporate Finance* consists of 20 Lotus 1-2-3 spreadsheets. Developed by Delvin D. Hawley of the University of Mississippi, the software provides additional review of concepts and refines students' spreadsheet techniques and skills for constructing simple models.

Acetates

Over 100 acetates provide numerous worked-out solutions to problems and highlight key charts and tables.

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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 third 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, School of Business Administration, University of Southern California, University Park, Los Angeles, CA 90089.

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