To Rebecca, Natasha, and Hannah, for the love and for being there —J. B.

To Kaui, Pono, Koa, and Kai, for all the love and laughter —P. D.

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Focus on the Financial Crisis and Sovereign Debt Crisis

Global Financial Crisis boxes reflect the reality of the recent financial crisis and ongoing sovereign debt crisis, noting lessons learned. Twenty-one boxes across the book illustrate and analyze key details.

Study Aids with a Practical Focus

To be successful, students need to master the core concepts and learn to identify and solve problems that today’s practitioners face.

Common Mistakes boxes alert students to frequently made mistakes stemming from misunderstanding core concepts and calculations—in the classroom and in the field.

Interviews with Notable Practitioners

Corporate Finance features actual companies and leaders in the field.

Applications that Reflect Real Practice

Worked Examples accompany every important concept using a step-by-step procedure that guides students through the solution process. Clear labels make them easy to find for homework and studying.

The Law of One Price as the Unifying Valuation Framework

The Law of One Price framework reflects the modern idea that the absence of arbitrage is the unifying concept of valuation. This critical insight is introduced in Chapter 3, revisited in each part opener, and integrated throughout the text—motivating all major concepts and connecting theory to practice.
Teaching Students to Think Finance

With a consistency in presentation and an innovative set of learning aids, Corporate Finance simultaneously meets the needs of both future financial managers and non-financial managers. This textbook truly shows every student how to “think finance.”

Simplified Presentation of Mathematics

One of the hardest parts of learning finance is mastering the jargon, math, and non-standardized notation. Corporate Finance systematically uses:

**Notation Boxes:** Each chapter opens by defining the variables and acronyms used in the chapter as a “legend” for students’ reference.

**Timelines:** Introduced in Chapter 4, timelines are emphasized as the important first step in solving every problem that involves cash flows.

**Numbered and Labeled Equations:** The first time a full equation is given in notation form it is numbered. Key equations are titled and revisited in the chapter summary.

**Using Excel Boxes:** Provide hands-on instruction of Excel techniques and include screenshots to serve as a guide for students.

**Spreadsheet Tables:** Select tables are available as Excel files, enabling students to change inputs and manipulate the underlying calculations.

**Practice Finance to Learn Finance**

Working problems is the proven way to cement and demonstrate an understanding of finance.

**Concept Check questions** at the end of each section enable students to test their understanding and target areas in which they need further review.

End-of-chapter problems written personally by Jonathan Berk and Peter DeMarzo offer instructors the opportunity to assign first-rate materials to students for homework and practice with the confidence that the problems are consistent with chapter content. Both the problems and solutions, which also were written by the authors, have been class-tested and accuracy-checked to ensure quality.

Data Cases present in-depth scenarios in a business setting with questions designed to guide students’ analysis. Many questions involve the use of Internet resources and Excel techniques.
Because practice with homework problems is crucial to learning finance, Corporate Finance is available with MyLab Finance, a fully integrated homework and tutorial system. MyLab Finance revolutionizes homework and practice with material written and developed by Jonathan Berk and Peter DeMarzo.

Online Assessment Using End-of-Chapter Problems
The seamless integration among the textbook, assessment materials, and online resources sets a new standard in corporate finance education.

- **End-of-chapter problems**—every single one—appear online. The values in the problems are algorithmically generated, giving students many opportunities for practice and mastery. Problems can be assigned by professors and completed online by students.

- **Helpful tutorial tools**, along with the same pedagogical aids from the text, support students as they study. Links to the eText direct students right to the material they most need to review.

- **Interactive Figures**—Select in-text graphs and figures—covering topics such as bonds, stock valuation, NPV, and IRR—have been digitally enhanced to allow students to interact with variables to affect outcomes and bring concepts to life.

Additional Resources in MyLab Finance

- **Auto-Graded Excel Projects**—Using proven, field-tested technology, MyLab Finance’s auto-graded Excel Projects allow instructors to seamlessly integrate Excel content into their course without having to manually grade spreadsheets. Students have the opportunity to practice important finance skills in Excel, helping them to master key concepts and gain proficiency with the program. End-of-chapter problems identified with an icon MyLab Finance indicate Excel Projects problems assignable in MyLab Finance.

- **Finance in the News** provides weekly postings of a relevant and current article from a newspaper or journal article with discussion questions that are assignable in MyLab Finance.

- **Author Solution Videos** walk through the in-text examples using math, the financial calculator, and spreadsheets.

Improving Results

Hands-On, Targeted Practice
Students can take pre-built Practice Tests for each chapter, and their test results will generate an individualized Study Plan. With the Study Plan, students learn to focus their energies on the topics they need to be successful in class, on exams, and, ultimately, in their careers.

Powerful Instructor Tools
MyLab Finance provides flexible tools that enable instructors to easily customize the online course materials to suit their needs.

- **Easy-to-Use Homework Manager.** Instructors can easily create and assign tests, quizzes, or graded homework assignments. In addition to pre-built MyLab Finance questions, the Test Bank is also available so that instructors have ample material with which to create assignments.

- **Flexible Gradebook.** MyLab Finance saves time by automatically grading students' work and tracking results in an online Gradebook.

- **Downloadable Classroom Resources.** Instructors also have access to online versions of each instructor supplement, including the Instructor's Manual, Solutions Manual, PowerPoint Lecture Notes, and Test Bank.

About the Authors

Jonathan Berk is the A.P. Giannini Professor of Finance at the Graduate School of Business, Stanford University and is a Research Associate at the National Bureau of Economic Research. Before coming to Stanford, he was the Sylvan Coleman Professor of Finance at Haas School of Business at the University of California, Berkeley. Prior to earning his Ph.D., he worked as an Associate at Goldman Sachs (where his education in finance really began).

Professor Berk’s research interests in finance include corporate valuation, capital structure, mutual funds, asset pricing, experimental economics, and labor economics. His work has won a number of research awards including the Stephen A. Ross Prize in Financial Economics, TIAA-CREF Paul A. Samuelson Award, the Smith Breeden Prize, Best Paper of the Year in The Review of Financial Studies, and the FAME Research Prize. His paper, “A Critique of Size-Related Anomalies,” was selected as one of the two best papers ever published in The Review of Financial Studies. In recognition of his influence on the practice of finance he has received the Bernstein-Fabozzi/Jacobs Levy Award, the Graham and Dodd Award of Excellence, and the Roger F. Murray Prize. He served two terms as an Associate Editor of the Journal of Finance, and a term as a director of the American Finance Association, the Western Finance Association, and academic director of the Financial Management Association. He is a Fellow of the Financial Management Association and a member of the advisory board of the Review of Finance and the Journal of Portfolio Management.

Born in Johannesburg, South Africa, Professor Berk has two daughters, and is an avid skier and biker.

Peter DeMarzo is the Staehelin Family Professor of Finance at the Graduate School of Business, Stanford University. He is the current President of the American Finance Association and a Research Associate at the National Bureau of Economic Research. He teaches MBA and Ph.D. courses in Corporate Finance and Financial Modeling. In addition to his experience at the Stanford Graduate School of Business, Professor DeMarzo has taught at the Haas School of Business and the Kellogg Graduate School of Management, and he was a National Fellow at the Hoover Institution.

Professor DeMarzo received the Sloan Teaching Excellence Award at Stanford and the Earl F. Cheit Outstanding Teaching Award at U.C. Berkeley. Professor DeMarzo has served as an Associate Editor for The Review of Financial Studies, Financial Management, and the B.E. Journals in Economic Analysis and Policy, as well as Vice President and director of the American Finance Association. He has also served as Vice President and President of the Western Finance Association. Professor DeMarzo’s research is in the area of corporate finance, asset securitization, and contracting, as well as market structure and regulation. His recent work has examined issues of the optimal design of contracts and securities, leverage dynamics and the role of bank capital regulation, and the influence of information asymmetries on stock prices and corporate investment. He has also received numerous awards including the Western Finance Association Corporate Finance Best-Paper Award, the Charles River Associates Best-Paper Award, and the Barclays Global Investors/Michael Brennan Best-Paper of the Year Award from The Review of Financial Studies.

Professor DeMarzo was born in Whitestone, New York, and is married with three boys. He and his family enjoy hiking, biking, and skiing.
Preface

IT IS HARD TO BELIEVE HOW MUCH TIME HAS PASSED since we first sat down together and conceived of this book. We have now published 5 editions and reached well over a million students. We were originally motivated to write this textbook by a central insight: The core concepts in finance are simple and intuitive. What makes the subject challenging is that it is often difficult for a novice to distinguish between these core ideas and other intuitively appealing approaches that, if used in financial decision making, will lead to incorrect decisions. Nothing has changed in the intervening years. De-emphasizing the core concepts that underlie finance strips students of the essential intellectual tools they need to differentiate between good and bad decision making. The book’s continued success is a testament to the value of this approach.

We present corporate finance as an application of a set of simple, powerful ideas. At the heart is the principal of the absence of arbitrage opportunities, or Law of One Price—in life, you don’t get something for nothing. This simple concept is a powerful and important tool in financial decision making. By relying on it, and the other core principles in this book, financial decision makers can avoid the bad decisions brought to light by the financial crisis and still ongoing every day. We use the Law of One Price as a compass; it keeps financial decision makers on the right track and is the backbone of the entire book.

New to This Edition

We have updated all text discussions and figures, tables, data cases, and facts to accurately reflect developments in the field in the last few years. Specific highlights include the following:

- Updates made throughout the text to reflect the Tax Cuts and Jobs Act of 2017. Extensive updates made to Chapter 8 (Fundamentals of Capital Budgeting), Chapter 15 (Debt and Taxes), and Chapter 31 (International Corporate Finance).
- Added discussion of Finance and Technology (Fintech) in Chapter 1 (The Corporation and Financial Markets).
- Added three new interviews with practitioners: Janet L. Yellen in Chapter 5 (Interest Rates), Susan Athey in Chapter 9 (Valuing Stocks), and Anne Martin in Chapter 11 (Optimal Portfolio Choice and the Capital Asset Pricing Model).
- Added discussion of cryptocurrency valuation in Chapter 9 (Valuing Stocks).
- Added discussion of “Smart Beta” in Chapter 13 (Investor Behavior and Capital Market Efficiency)
- Incorporated new and/or revised features throughout, including Common Mistakes, Global Financial Crisis, Nobel Prize, and General Interest boxes, as well as Examples.
- Added two new Data Cases (on bitcoin in Ch. 3, corporate yield curves in Ch. 6) and extensively revised many others; added new and revised problems, once again personally writing and solving each one. In addition, every single problem is available in MyLab Finance, the groundbreaking homework and tutorial system that accompanies the book.
- Updated tables and figures to reflect current data.
The Law of One Price as a Unifying Principle of Valuation

This book presents corporate finance as an application of a small set of simple core ideas. Modern finance theory and practice is grounded in the idea of the absence of arbitrage—or the Law of One Price—as the unifying concept in valuation. We introduce the Law of One Price concept as the basis for NPV and the time value of money in Chapter 3, Financial Decision Making and the Law of One Price. In the opening of each part and as pertinent throughout the remaining chapters, we relate major concepts to the Law of One Price, creating a framework to ground the student reader and connect theory to practice.

Table of Contents Overview

*Corporate Finance* offers coverage of the major topical areas for introductory-level MBA students as well as the depth required in a reference textbook for upper-division courses. Most professors customize their classes by selecting a subset of chapters reflecting the subject matter they consider most important. We designed this book from the outset with this need for flexibility in mind. Parts 2 through 6 are the core chapters in the book. We envision that most MBA programs will cover this material—yet even within these core chapters instructors can pick and choose.

*Single quarter course*: Cover Chapters 3–15; if time allows, or students are previously familiar with the time value of money, add on Chapters 16–19.

*Semester-long course*: Incorporate options (Chapters 20–22) and Part 10, Special Topics, chapters as desired.

*Single mini-semester*: Assign Chapters 3–10, 14, and 15 if time allows.

### Table Highlights and Changes

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<td>1 The Corporation and Financial Markets</td>
<td>Introduces the corporation and its governance; updated the Dodd-Frank Act information; new section on Finance and Technology (Fintech)</td>
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<tr>
<td>2 Introduction to Financial Statement Analysis</td>
<td>Introduces key financial statements; coverage of financial ratios is centralized to prepare students to analyze financial statements holistically</td>
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<tr>
<td>3 Financial Decision Making and the Law of One Price</td>
<td>Introduces the Law of One Price and net present value as the basis of the book’s unifying framework; new Data Case on arbitraging bitcoin</td>
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<td>4 The Time Value of Money</td>
<td>Introduces the mechanics of discounting with applications to personal finance; Using Excel boxes familiarizes students with spreadsheet functionality</td>
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<tr>
<td>5 Interest Rates</td>
<td>Discusses key determinants of interest rates and their relation to the cost of capital; new Interview with Janet L. Yellen, former Chair of the Board of Governors of the Federal Reserve System</td>
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<tr>
<td>6 Valuing Bonds</td>
<td>Analyzes bond prices and yields, as well as the risk of fixed-income securities as illustrated by the sovereign debt crisis; expanded Global Financial Crisis box on negative bond yields; new Data Case on corporate yield curves</td>
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<td>7 Investment Decision Rules</td>
<td>Introduces the NPV rule as the “golden rule” against which we evaluate other investment decision rules; introduces the use of Data Tables for sensitivity analysis</td>
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<td>8 Fundamentals of Capital Budgeting</td>
<td>Provides a clear focus on the distinction between earnings and free cash flow, and shows how to build a financial model to assess the NPV of an investment decision (including tips on using Excel); new Common Mistake box on corporate tax rates and investment; extensive updates to align with the Tax Cuts and Jobs Act</td>
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<td>Chapter</td>
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<tr>
<td>9 Valuing Stocks</td>
<td>Provides a unifying treatment of projects within the firm and the valuation of the firm as a whole; new box on cryptocurrencies and financial bubbles; new interview with Susan Athey, Economics of Technology Professor at the Stanford Graduate School of Business</td>
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<tr>
<td>10 Capital Markets and the Pricing of Risk</td>
<td>Establishes the intuition for understanding risk and return, explains the distinction between diversifiable and systematic risk, and introduces beta and the CAPM; extensive data updates throughout to reflect current market conditions</td>
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<tr>
<td>11 Optimal Portfolio Choice and the Capital Asset Pricing Model</td>
<td>Presents the CAPM and develops the details of mean-variance portfolio optimization; new interview with Anne Martin, Wesleyan University Chief Investment Officer; updated examples and Data Case</td>
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<td>12 Estimating the Cost of Capital</td>
<td>Demonstrates the practical details of estimating the cost of capital for equity, debt, or a project, and introduces asset betas, and the unlevered and weighted-average cost of capital; Using Excel box on estimating beta</td>
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<td>13 Investor Behavior and Capital Market Efficiency</td>
<td>Examines the role of behavioral finance and ties investor behavior to the topic of market efficiency and alternative models of risk and return; expanded discussion of fund manager performance; new Nobel Prize box on Behavioral Finance; new discussion of “Smart Beta”</td>
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<td>14 Capital Structure in a Perfect Market</td>
<td>Presents Modigliani and Miller's results and introduces the market value balance sheet, discussion of important leverage fallacies with application to bank capital regulation</td>
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<tr>
<td>15 Debt and Taxes</td>
<td>Analyzes the tax benefits of leverage, including the debt tax shield and the after-tax WACC; new Common Mistake box on how to save for retirement; extensive updates to align with the Tax Cuts and Jobs Act</td>
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<td>16 Financial Distress, Managerial Incentives, and Information</td>
<td>Examines the role of asymmetric information and introduces the debt overhang and leverage ratchet effect; new Nobel Prize box on markets with asymmetric information and adverse selection</td>
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<td>17 Payout Policy</td>
<td>Considers alternative payout policies including dividends and share repurchases; analyzes the role of market imperfections in determining the firm’s payout policy; updated discussion of corporate cash retention</td>
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<td>18 Capital Budgeting and Valuation with Leverage</td>
<td>Develops in depth the three main methods for capital budgeting with leverage and market imperfections: the weighted average cost of capital (WACC) method, the adjusted present value (APV) method, and the flow-to-equity (FTE) method; appendix explains the relation between DCF and residual income valuation methods</td>
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<td>19 Valuation and Financial Modeling: A Case Study</td>
<td>Builds a financial model for a leveraged acquisition; Using Excel box “Summarizing Model Outputs”</td>
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<td>20 Financial Options</td>
<td>Introduces the concept of financial options, how they are used and exercised; demonstrates how corporate securities may be interpreted using options</td>
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<td>21 Option Valuation</td>
<td>Develops the binomial, Black-Scholes, and risk-neutral pricing methods for option pricing</td>
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<td>22 Real Options</td>
<td>Analyzes real options using decision tree and Black-Scholes methods, and considers the optimal staging of investment; discussion of decision tree methodology with examples</td>
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<td>23 Raising Equity Capital</td>
<td>Overview of the stages of equity financing, from angel financing and venture capital to IPO to seasoned equity offerings; expanded coverage of venture capital financing including common deal terms and protections as well as an illustration of typical funding patterns and success rates; new General Interest box on an alternative to the traditional IPO</td>
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<td>24 Debt Financing</td>
<td>Overview of debt financing, including a discussion of asset-backed securities and their role in the financial crisis</td>
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<td>25 Leasing</td>
<td>Introduces leasing as an alternative form of levered financing; update on new FASB rules for lease accounting; new Example on leasing to avoid debt overhang</td>
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<td>26 Working Capital Management</td>
<td>Introduces the Cash Conversion Cycle and methods for managing working capital</td>
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<td>27 Short-Term Financial Planning</td>
<td>Develops methods for forecasting and managing short-term cash needs</td>
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<td>28 Mergers and Acquisitions</td>
<td>Considers motives and methods for mergers and acquisitions, including leveraged buyouts; expanded discussion of valuation and premiums paid</td>
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<td>29 Corporate Governance</td>
<td>Evaluates direct monitoring, compensation policies, and regulation as methods to manage agency conflicts within the firm; addresses impact of Dodd-Frank Act; discussion of shareholder activism and its recent impact on corporate governance; new Common Mistake box on celebrity boards</td>
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<tr>
<td>30 Risk Management</td>
<td>Analyzes the methods and motives for the use of insurance, commodity futures, currency forwards and options, and interest rate swaps to hedge risk</td>
</tr>
<tr>
<td>31 International Corporate Finance</td>
<td>Analyzes the valuation of projects with foreign currency cash flows with integrated or segregated capital markets; extensive updates to align with the Tax Cuts and Jobs Act</td>
</tr>
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## A Complete Instructor and Student Support Package

**MyLab Finance**

A critical component of the text, *MyLab Finance* will give all students the practice and tutorial help they need to succeed. For more details, see pages xix.

**Instructor’s Resource Center**

This password-protected site, accessible at www.pearsonhighered.com/irc, hosts all of the instructor resources that follow. Instructors should click on the “Request Access” link for easy-to-follow access instructions or may contact their sales representative for further information.

**Solutions Manual**

- Prepared by Jonathan Berk and Peter DeMarzo.
- Provides detailed, accuracy-verified, class-tested solutions to every chapter Problem.

**Instructor’s Manual**

- Written by Janet Payne of Texas State University.
- Corresponding to each chapter, provides: chapter overview and outline correlated to the PowerPoint Lecture Notes; learning objectives; guide to fresh worked examples in the PowerPoint Lecture Notes; and listing of chapter problems with accompanying Excel spreadsheets.

**Test Bank**

- Revised by Michael Woodworth.
- Provides a wide selection of multiple-choice, short answer, and essay questions qualified by difficulty level and skill type and correlated to chapter topics. Numerical-based Problems include step-by-step solutions.
- Available as Computerized Test Bank in TestGen.

**PowerPoint Lecture Presentation**

- Authored by William Chittenden of Texas State University.
Preface

- Offers outlines of each chapter with graphs, tables, key terms, and concepts from each chapter.
- Worked examples provide detailed, step-by-step solutions in the same format as the boxes from the text and correlated to parallel specific textbook examples.

Videos

- Author Solution Videos that walk through the in-text examples using math, the financial calculator, and spreadsheets.
- Available in MyLab Finance.

Acknowledgments

With five editions behind us, we are heartened by the book's success and its impact on the profession by shaping future practitioners. As any textbook writer will tell you, achieving this level of success requires a substantial amount of help. First and foremost we thank Donna Battista, whose leadership, talent, and market savvy are imprinted on all aspects of the project and are central to its more than 10 years of success; Denise Clinton, a friend and a leader in fact not just in name, whose experience and knowledge were indispensable in the earliest stages; Rebecca Ferris-Caruso, for her unparalleled expertise in managing the complex writing, reviewing, and editing processes and patience in keeping us on track—it is impossible to imagine writing the first edition without her; Jami Minard, for spearheading marketing efforts; Kate Fernandes, for her energy and fresh perspective as our former editor; Miguel Leonarte, for his central role on MyLab Finance; and Gina Linko for getting the book from draft pages into print. We were blessed to be approached by the best publisher in the business and we are both truly thankful for the indispensable help provided by these and other professionals, including Catherine Cinque, Meredith Gertz, Melissa Honig, and Carol Melville.

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A corporate finance textbook is the product of the talents and hard work of many talented colleagues. We are especially gratified with the work of those who updated the impressive array of supplements to accompany the book: Janet Payne for the Instructor’s Manual; William Chittenden for the PowerPoint; Michael Woodworth for the Test Bank; and Carlos Bazan for his accuracy review of the Solutions Manual.
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*Jonathan Berk*

*Peter DeMarzo*

**Contributors**

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Reviewers
Ashok B. Abbott, West Virginia University
Michael Adams, Jacksonville University
Ilan Adler, University of California, Berkeley
Ibrahim Affaneh, Indiana University of Pennsylvania
Kevin Ahlgrim, Illinois State University
Andres Almazan, University of Texas, Austin
Confidence Amadi, Florida A&M University
Christopher Anderson, University of Kansas
Tom Arnold, University of Richmond
John Banko, University of Florida
Nigel Barradale, Copenhagen Business School
Peter Basciano, Augusta State University
Thomas Bates, University of Arizona
Paul Bayes, East Tennessee State University
Omar Benkato, Ball State University
Gordon Bodnar, Johns Hopkins University
Stephen Borde, University of Central Florida
Waldo Born, Eastern Illinois University
Alex Boulaton, Higher School of Economics, Moscow
Chen Cai, Cleveland State University
Tyrone Callahan, University of Southern California
David Carter, Oklahoma State University
Yingpin (George) Chang, Grand Valley State University
Engku Ngah S. Engku Chik, University Utara Malaysia
William G. Christie, Vanderbilt University
Ting-Heng Chu, East Tennessee State University
John H. Cochrane, University of Chicago
James Conover, University of North Texas
James Cordeiro, SUNY Brockport
Henrik Cronqvist, Claremont McKenna College
Maddur Daggar, CityIgnat
Hazem Daour, Cornell University
Sougata Das, Montana State University Billings
Theodore Day, University of Texas at Dallas
Daniel Deli, DePaul University
Andrea DeMaskey, Villanova University
B. Espen Eckbo, Dartmouth College
Larry Eisenberg, University of Southern Mississippi
Riza Emekter, Robert Morris University
Gayle Erwin, University of Virginia
T. Hanan Eytan, Baruch College
Andre Farber, Universite Libre de Bruxelles
Stephen Ferris, University of Missouri–Columbia
Eliezer Fich, Drexel University
Michael Fishman, Northwestern University
Fangjian Fu, Singapore Management University
Vito Gala, Wharton School of the University of Pennsylvania
Michael Gallmeyer, University of Virginia
Diego Garcia, University of North Carolina
Tom Geurts, Marist College
Frank Ghanadman, University of Tampa
Thomas Gilbert, University of Washington
Anand Goel, DePaul University
Marc Goergen, Cardiff Business School
David Goldenberg, Rensselaer Polytechnic Institute
Qing (Grace) Hao, University of Missouri
Milton Harris, University of Chicago
Christopher Hennessy, London Business School
J. Ronald Hoffmeister, Arizona State University
Vanessa Holmes, Xavier University
Wenli Huang, Boston University School of Management
Mark Hutchinson, University College Cork
Michael Hutchinson, Wilmington University
Stuart Hyde, University of Manchester
Ronen Israel, IDC
Robert James, Boston College
Keith Johnson, University of Kentucky
Jouko Karjalainen, Helsinki University of Technology
Ayla Kayhan, Louisiana State University
Doseong Kim, University of Akron
Kenneth Kim, State University of New York—Buffalo
Halil Kiyamaz, Rollins College
Brian Kluger, University of Cincinnati
John Knopf, University of Connecticut
C.N.V. Krishnan, Case Western Reserve University
George Kuner, Marquette University
Vance P. Lesseig, Texas State University
Martin Lettau, University of California, Berkeley
Michel G. Levasseur, Esa Universite de Lille 2
Jose Liberti, DePaul University
Wendell Licon, Arizona State University
James Linck, University of Georgia
David Lins, University of Illinois at Urbana-Champaign
Lan Liu, California State University, Sacramento
Michelle Lowry, Pennsylvania State University
Deborah Lucas, Massachusetts Institute of Technology
Peng (Peter) Liu, Cornell University
Evgeny Lyandres, Boston University
Balasundram Maniam, Sam Houston State University
Suren Mansinghka, University of California, Irvine
Daniel McConaughy, California State University, Northridge
Robert McDonald, Northwestern University
Mark McNabb, University of Cincinnati
Ilhan Meric, Rider University
Timothy Michael, James Madison University
Dag Michalsen, Norwegian School of Management
Todd Milbourn, Washington University in St. Louis
James Miles, Penn State University
Darius Miller, Southern Methodist University
Emmanuel Morales-Camargo, University of New Mexico
Helen Moser, University of Minnesota
Arjen Mulder, Erasmus University
Michael Muoghalu, Pittsburg State University
Jeryl Nelson, Wayne State College
Tom Nelson, University of Colorado
Chee Ng, Fairleigh Dickinson University
Ben Nunnally, University of North Carolina, Charlotte
Terrance Odean, University of California, Berkeley
Frank Ohara, University of San Francisco
Marcus Opp, University of California, Berkeley
Henry Oppenheimer, University of Rhode Island
Miguel Palacios, Vanderbilt University
Mitchell Petersen, Northwestern University
Marianne Plunkert, University of Colorado at Denver
Paul Povel, University of Houston
Eric A. Powers, University of South Carolina
Michael Provitera, Barry University
Brian Prucyk, Marquette University
Charu Raheja, TriageLogic Management
Latha Ramchand, University of Houston
Adriano Rampini, Duke University
P. Raghavendra Rau, University of Cambridge
S. Abraham Ravid, Yeshiva University
William A. Reese, Jr., Tulane University
Ali Reza, San Jose State University
Steven P. Rich, Baylor University
Antonio Rodriguez, Texas A&M International University
Mauricio Rodriguez, Texas Christian University
Bruce Rubin, Old Dominion University
Mark Rubinstein, University of California, Berkeley
Doriana Ruffino, University of Minnesota
Harley E. Ryan, Jr., Georgia State University
Jacob A. Sagi, Vanderbilt University
Jesus Salas, Lehigh University
Harikumar Sankaran, New Mexico State University
Mukunthan Santhanakrishnan, Idaho State University
Frederik Schlingemann, University of Pittsburgh
Eduardo Schwartz, University of California, Los Angeles
Mark Seasholes, Hong Kong University of Science and Technology
Berk Sensoy, Ohio State University
Mark Shackleton, Lancaster University
Jay Shanken, Emory University
Dennis Sheehan, Penn State University
Anand Shetty, Iona College
Clemens Sialm, University of Texas at Austin
Mark Simonson, Arizona State University
Rajeev Singhal, Oakland University
Erik Stafford, Harvard Business School
David Stangeland, University of Manitoba
Richard H. Stanton, University of California, Berkeley
Mark Hoven Stohs, California State University, Fullerton
Ryan Stever, Bank for International Settlements
Ilya A. Strebulaev, Stanford University
John Strong, College of William and Mary
Diane Suhler, Columbia College
Lawrence Tai, Zayed University
Mark Taranto, University of Maryland
Amir Tavakkol, Kansas State University
Andy Terry, University of Arkansas at Little Rock
John Thornton, Kent State University
Alex Triantis, University of Maryland
Sorin Tuluca, Fairleigh Dickinson University
P. V. Viswanath, Pace University
Gautam Vora, University of New Mexico
Joseph Vu, DePaul University
Joe Walker, University of Alabama at Birmingham
Edward Waller, University of Houston, Clear Lake
Kaiman Wang, University of Toledo
Shelly Webb, Xavier University
Peihwung Wei, University of New Orleans
Peter Went, Global Association of Risk Professionals (GARP)
John White, Georgia Southern University
Michael E. Williams, University of Denver
Annie Wong, Western Connecticut State University
K. Matthew Wong, International School of Management, Paris
Bob Wood, Jr., Tennessee Tech University
Lifan (Frank) Wu, California State University, Los Angeles
Tszy-Jeng Wu, Pace University
Feixue Xie, University of Texas at El Paso
Jaime Zender, University of Colorado
Jeffrey H. Zwiebel, Stanford University

Chapter Class Testers
Jack Aber, Boston University
John Adams, University of South Florida
James Conover, University of North Texas
Tom Geurts, Marist College
Lou Gingerella, Rensselaer Polytechnic Institute
Keith Johnson, University of Kentucky
Preface

Gautum Kaul, University of Michigan
Doseong Kim, University of Akron
Jennifer Koski, University of Washington
George Kutner, Marquette University
Larry Lynch, Roanoke College
Vasil Mihov, Texas Christian University
Jeryl Nelson, Wayne State College
Chee Ng, Fairleigh Dickinson University
Ben Nunnally, University of North Carolina, Charlotte
Michael Provitera, Barry University
Charu G. Raheja, Vanderbilt University
Bruce Rubin, Old Dominion University
Mark Seasholes, University of California, Berkeley
Dennis Sheehan, Pennsylvania State University
Ravi Shukla, Syracuse University
Mark Hoven Stohs, California State University, Fullerton
Andy Terry, University of Arkansas
Sorin Tuluca, Fairleigh Dickinson University
Joe Ueng, University of Saint Thomas
Bob Wood, Tennessee Technological University

End-of-Chapter Problems Class Testers
James Angel, Georgetown University
Ting-Heng Chu, East Tennessee State University
Robert Kravchuk, Indiana University
George Kutner, Marquette University
James Nelson, East Carolina University
Don Panton, University of Texas at Arlington
P. Raghavendra Rau, Purdue University
Carolyn Reichert, University of Texas at Dallas
Mark Simonson, Arizona State University
Diane Suhler, Columbia College

Focus Group Participants
Christopher Anderson, University of Kansas
Chenchu Bathala, Cleveland State University
Matthew T. Billett, University of Iowa
Andrea DeMaskey, Villanova University
Anand Desai, Kansas State University
Ako Doffou, Sacred Heart University
Shannon Donovan, Bridgewater State University
Ibrahim Elsaiify, Goldey-Beacom College
Mark Holder, Kent State University
Steve Isberg, University of Baltimore
Arun Khanna, Butler University

Brian Kluger, University of Cincinnati
Greg La Blanc, University of California, Berkeley
Dima Leshchinskii, Rensselaer Polytechnic University
James S. Linck, University of Georgia
Larry Lynch, Roanoke College
David C. Mauer, Southern Methodist University
Alfred Mettler, Georgia State University
Stuart Michelson, Stetson University
Vassil Mihov, Texas Christian University
Jeryl Nelson, Wayne State College
Chee Ng, Fairleigh Dickinson University
Ben Nunnally, University of North Carolina at Charlotte
Sunny Onyiri, Campbellsville University
Janet Payne, Texas State University
Michael Provitera, Barry University
S. Abraham Ravid, Rutgers University
William A. Reese, Jr., Tulane University
Mario Reyes, University of Idaho
Hong Rim, Shippensburg University
Robert Ritchey, Texas Tech University
Antonio Rodriguez, Texas A&M International University
Dan Rogers, Portland State University
Harley E. Ryan, Jr., Georgia State University
Harikumar Sankaran, New Mexico State University
Sorin Sorescu, Texas A&M University
David Stangeland, University of Manitoba
Jonathan Stewart, Abilene Christian University
Mark Hoven Stohs, California State University, Fullerton
Tim Sullivan, Bentley College
Olie Thorp, Babson College
Harry Turtle, Washington State University
Joseph Vu, DePaul University
Joe Walker, University of Alabama at Birmingham
Jill Wetmore, Saginaw Valley State University
Jack Wolf, Clemson University
Bob Wood, Jr., Tennessee Tech University
Donald H. Wort, California State University, East Bay
Scott Wright, Ohio University
Tong Yao, University of Arizona

MyLab Finance Contributors
Carlos Bazan, San Diego State University
Ting-Heng Chu, East Tennessee State University
Shannon Donovan, Bridgewater State College
Michael Woodworth