# BREALEY MYERS

# PRINCIPLES of CORPORATE FINANCE

SIXTH EDITION

# PRINCIPLES

# CORPORATE FINANCE

SIXTH EDITION



本书配有光盘,需要者请到网络光盘实验室拷贝

RICHARD A. BREALEY

SPECIAL ADVISER TO THE GOVERNOR, BANK OF ENGLAND

VISITING PROFESSOR OF FINANCE LONDON BUSINESS SCHOOL



Seoul

Toronto

### McGraw-Hill Higher Education 🛫

A Division of The McGraw-Hill Companies

#### PRINCIPLES OF CORPORATE FINANCE

Copyright © 2000, 1996, 1991, 1988, 1984, 1981 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

This book is printed on acid-free paper.

domestic

5 6 7 8 9 0 KPH/KPH 0 9 8 7 6 5 4 3 2 1

international

3 4 5 6 7 8 9 0 KPH/KPH 0 9 8 7 6 5 4 3 2 1

ISBN 0-07-290999-4 (student ed.)

ISBN 0-07-234661-2 (CD-ROM)

ISBN 0-07-235236-1 (book bound with CD-ROM)

ISBN 0-07-290999-4 (instructor's ed.)

ISBN 0-07-235142-X (IE bound with CD-ROM)

Vice president/Editor-in-chief: Michael W. Junior

Publisher: Craig S. Beytien

Sponsoring editor: Eric R. H. Gates

Developmental editor: Sarah Pearson

Senior marketing manager: Katie Rose Matthews

Senior project manager: Jean Lou Hess

Production supervisor: Kari Geltemeyer Designer: Kiera Cunningham

Interior designer: Becky Lemna Supplement coordinator: Becky Szura

Compositor: Precision Graphics Typeface: 10/12 Palatino

Printer: Quebecor Printing Book Group/Hawkins

#### LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA

Brealey, Richard A.

Principles of corporate finance / Richard A. Brealey, Stewart C.

Myers. 6th ed.

cm. Irwin/McGraw-Hill series in finance ISBN 0-07-290999-4 (acid-free paper) :

Includes bibliographical references and index

1. Corporations—Finance I Myers, Stewart C I Title

II. Series

HG4026.B667 2000

658.15 dc-21

99-63448

#### INTERNATIONAL EDITION ISBN 0-07-117901-1

Copyright © 2000. Exclusive rights by The McGraw-Hill Companies, Inc. for manufacture and export This book cannot be re-exported from the country to which it is consigned by McGraw-Hill The International Edition is not available in North America.

http://www.mhhe.com

#### About the Authors

#### Richard A. Brealey

Special Adviser to the Governor of the Bank of England and Visiting Professor of Finance at the London Business School. Dr. Brealey was a full-time faculty member of the London Business School from 1968–1998. He is the former President of the European Finance Association. He is also a former director of The Brattle Group, Sun Life Assurance Company of Canada UK Holdings plc, and Tokai Derivative Products Ltd. Other books written by Professor Brealey include *Introduction to Risk and Return from Common Stocks*.

#### Stewart C. Myers

Gordon Y Billard Professor of Finance at MIT's Sloan School of Management. Dr. Myers is past President of the American Finance Association and a Research Associate of the National Bureau of Economic Research. His research has focused on financing decisions, valuation methods, the cost of capital, and financial aspects of government regulation of business. Dr. Myers is a Director of The Brattle Group, Inc. and is active as a financial consultant.

### **PREFACE**

his book describes the theory and practice of corporate finance. We hardly need to explain why financial managers should master the practical aspects of their job, but we should spell out why down-to-earth, red-blooded managers need to bother with theory.

Managers learn from experience how to cope with routine problems. But the best managers are also able to respond to change. To do this you need more than time-honored rules of thumb; you must understand *why* companies and financial markets behave the way they do. In other words, you need a *theory* of finance.

Does that sound intimidating? It shouldn't. Good theory helps you grasp what is going on in the world around you. It helps you to ask the right questions when times change and new problems must be analyzed. It also tells you what things you do *not* need to worry about. Throughout this book we show how managers use financial theory to solve practical problems.

Of course, the theory presented in this book is not perfect and complete—no theory is. There are some famous controversies in which financial economists cannot agree on what firms ought to do. We have not glossed over these controversies. We set out the main arguments for each side and tell you where we stand.

There are also a few cases where theory indicates that the rules of thumb employed by financial managers are leading to poor decisions. Where managers appear to be making mistakes, we say so, while admitting that there may be hidden reasons for their actions. In brief, we have tried to be fair but to pull no punches.

Once understood, good theory is common sense. Therefore we have tried to present it at a commonsense level, and we have avoided proofs and heavy mathematics. There are no ironclad prerequisites for reading this book except algebra and the English language. An elementary knowledge of accounting, statistics, and microeconomics is helpful, however.

#### CHANGES IN THE SIXTH EDITION

This book is written for students of financial management. For many readers, it is their first look at the world of finance. Therefore in each edition we strive to make the book simpler, clearer, and more fun to read. But the book is also used as a reference and guide by practicing managers around the world. Therefore we also strive to make each new edition more comprehensive and authoritative.

We believe this edition is better for both the student and the practicing manager. Here are some of the major changes:

We have streamlined and simplified the exposition of major concepts. For example, Chapter 2 has a more intuitive explanation of why the NPV rule makes sense. Chapter 19, which covers the weighted average cost of capital and adjusted present value, has been completely rewritten, with more emphasis on "how to do it" and less on the various adjusted cost of capital formulas. (The formulas are still accessible, but in an appendix on the Web.) Chapter 28 condenses two previous chapters, on financial planning and the evaluation of financial performance, into one integrated presentation.

At the same time we have expanded the coverage of important topics. For example, the treatment of agency issues is much more extensive. We highlight agency problems in the first chapter. In Chapter 12 we have added a discussion of economic value added (EVA) and of the links between performance and management compensation. A brand-new Chapter 34 reviews corporate control and governance and looks at some of the international differences in the financial design and ownership of corporations. (Chapter 33, on mergers, is shorter and more focused as a result.)

Other examples of expanded coverage include estimates of the market risk premium (Chapter 7), factor models of expected returns (Chapter 8), market anomalies (Chapter 13), and the measurement of credit risk (Chapter 23).

This edition's international coverage is expanded and woven into the rest of the text. There is no segregated chapter on international finance. There is a chapter on international risk management, but international investment decisions are now introduced in Chapter 6, right alongside domestic investment decisions. Likewise the cost of capital for international investments is discussed in Chapter 9, and international differences in security issue procedures are reviewed in Chapter 15.

Updating was needed for all but the most basic material. There are frequent references to new financial markets and instruments. For example, the discussion of foreign exchange has been revised to recognize the birth of the euro. Other financial innovations making at least a brief appearance include Treasury indexlinked bonds, credit derivatives, asset-backed bonds, and mandatory convertibles.

Of course, as every first-grader knows, it is easier to add than to subtract, but we have pruned judiciously. Some readers of the fifth edition may miss a favorite example or special topic. But new readers should find that the main themes of corporate finance come through with less clutter.

#### MAKING LEARNING EASIER

Each chapter of the book includes an introductory preview, a summary, and an annotated list of suggestions for further reading. There is a quick and easy quiz, a number of practice questions, a few challenge questions, and in several chapters a

minicase. In total there are now over a thousand end-of-chapter questions. All the questions refer to material in the same order as it occurs in the chapter. Answers to the quiz questions may be found at the end of the book, along with a glossary and tables for calculating present values and pricing options.

Parts 1 to 3 of the book are concerned with valuation and the investment decision, Parts 4 to 8 with long-term financing and risk management. Part 9 focuses on financial planning and short-term financial decisions. Part 10 looks at mergers and corporate control and Part 11 concludes. We realize that many teachers will prefer a different sequence of topics. Therefore, we have ensured that the text is modular, so that topics can be introduced in a variety of orders. For example, there will be no difficulty in reading the material on financial statement analysis and short-term decisions before the chapters on valuation and capital investment.

We should mention two matters of style now to prevent confusion later. First, the most important financial terms are set out in boldface type the first time they appear; less important but useful terms are given in italics. Second, most algebraic symbols representing dollar values are shown as capital letters. Other symbols are generally lowercase letters. Thus the symbol for a dividend payment is "DIV," and the symbol for a percentage rate of return is "r."

#### SUPPLEMENTS

In this edition, we have gone to great lengths to ensure that our supplements are equal in quality and authority to the text itself.

The Wall Street Journal *Edition ISBN* 0072323167

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 ISBN 0072910003

The Instructor's Manual was extensively revised and updated by C. R. Krishnaswamy of Western Michigan University. It contains an overview of each chapter, teaching tips, learning objectives, challenge areas, key terms, and an annotated outline that provides references to the PowerPoint slides.

*Test Bank ISBN 0072346604* 

The Test Bank was also updated by C. R. Krishnaswamy, who included well over 1,000 new multiple-choice and short answer/discussion questions based on the revisions of the authors. The level of difficulty is varied throughout, using a label of easy, medium, or difficult.

# PowerPoint Presentation System ISBN 007291002X

Matt Will of Johns Hopkins University prepared the PowerPoint Presentation System, which contains exhibits, outlines, key points, and summaries in a visually stimulating collection of slides. Found on the Student CD-ROM, the Instructor's CD-ROM, and our Website, the slides can be edited, printed, or rearranged in any way to fit the needs of your course.

Financial Analysis Spreadsheet Templates (F.A.S.T.) ISBN 0073031038

Greg Lowry of Macon Technical Institute created the templates in Excel. They correlate with specific concepts in the text and allow students to work through financial problems and gain experience using spreadsheets.

Solutions Manual ISBN 0072346590

The Solutions Manual, prepared by Mark Griffiths of Thunderbird, American School of International Management, contains solutions to all practice questions and challenge questions found at the end of each chapter. Thoroughly checked for accuracy, this supplement is available to be purchased by your students.

Study Guide ISBN 0072346582

The new Study Guide was carefully revised by V. Sivarama Krishnan of Cameron University and contains useful and interesting keys to learning. It includes an introduction to each chapter, key concepts, examples, exercises and solutions, and a complete chapter summary.

Videos ISBN 0072346647

The Irwin/McGraw-Hill Finance Video Series is a complete video library designed to bring added points of discussion to your class. Within this professionally developed series, you will find examples of how real businesses face today's hottest topics, like mergers and acquisitions, going public, and careers in finance.

#### Student CD-ROM

Packaged with each text is a CD-ROM for students containing FinSteps Software. This financial software is created by FinQuest to help students gain a basic understanding of finance through computerized portfolio, valuation, and pricing problems. Students profit from the Practice Mode, which allows them to rework their solutions until the computer signals that they have correctly answered the problem.

A help section addresses common questions and problems. The Test Mode allows instructors to apply Standard Tests, composed of stock FinSteps problems, or Customized Tests for total control over test duration, the number of problems, and the topics to be covered. Formula sheets, graphing sheets, and the financial calculator can also be enabled or disabled to suit testing structure.

Other features on the CD include PowerPoint presentation slides, Financial Analysis Spreadsheet Templates (F.A.S.T.), video clips from our Finance Video Series, and many useful Web links.

Instructor's CD-ROM ISBN 0072346620

We have compiled many of our instructor supplements in electronic format on a CD-ROM designed to assist with class preparation. The CD includes the Instructor's Manual, a computerized Test Bank, PowerPoint slides, video clips, and Web links.

Website

Visit our Website at www.mhhe.com/bm. This site contains information about the book and the authors, as well as teaching and learning materials for the instructor and the student including:

PageOut: The Course Website Development Center and PageOut Lite www.pageout.net

This Web page generation software, free to adopters, is designed for professors just beginning to explore Website options. In just a few minutes, even the most novice computer user can have a course Website.

Simply type your material into the template provided and PageOut Lite instantly converts it to HTML—a universal Web language. Next, choose your favorite of three easy-to-navigate designs and your Web homepage is created, complete with 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.

#### Online Learning Center

McGraw-Hill content and the power of the Web combine to offer you Online Learning Centers—pedagogical features and supplements for McGraw-Hill books on the Internet. Students can simply point-and-click their way to key terms, learning objectives, chapter overviews, PowerPoint slides, exercises, and Web links. And professors profit from the instant access to lecture materials, Instructor's Manuals, test banks, PowerPoint slides, and answers to all exercises in one place.

## McGraw-Hill Learning Architecture www.mhla.net

This unique new Web-based learning system gives instructors ownership over online course administration, study aids and activities, and Internet links to featured companies in many of the McGraw-Hill texts. You can now place course materials online, facilitating the assignment of quizzes and homework—even the tracking of student progress—all from the comfort of your own computer. The system also works to break down traditional instructor/student communication barriers by providing students with an e-mail forum for course topics in addition to auto-graded tests and lecture slide reviews.

#### ACKNOWLEDGMENTS

We have a long list of people to thank for their helpful criticism of earlier editions and for assistance in preparing this one. They include Li Jin, Fiona Wang, and Gretchen Slemmons at MIT; and Larry Kolbe, Lynda Borucki, and Judy Lawler at The Brattle Group, Inc. We would also like to thank all those at Irwin/McGraw-Hill who worked on the book, including Craig Beytien, Publisher; Eric Gates, Sponsoring Editor; Katie Rose Matthews, Senior Marketing Manager; Sarah Pearson, Developmental Editor; Jean Lou Hess, Senior Project Manager; Kiera Cunningham, Designer; Becky Szura, Supplement Coordinator; and Kari Geltemeyer, Production Supervisor.

We want to express our appreciation to those instructors whose insightful comments and suggestions were invaluable to us during this revision:

Peter Berman

University of New Haven
Robert Everett

Johns Hopkins University

Winfried Hallerbach
Erasmus University Rotterdam

Milton Harris University of Chicago

Mark Griffiths

Thunderbird, American School of International Management

Jarl Kallberg

NYU, Stern School of Business

Steve Kaplan
University of Chicago

Ken Kim

University of Wisconsin-Milwaukee

C. R. Krishnaswamy Western Michigan University

Ravi Jaganathan Northwestern University Ioe Messina

San Francisco State University

Peter Moles

University of Edinburgh, U.K.

Narendar V. Rao Northeastern University

Tom Rietz University of Iowa

Shrinivasan Sundaram Ball State University

**Burnell Stone** 

Brigham Young University

Avanidhar Subrahmanyam

**UCLA** 

Stephen Todd

Loyola University-Chicago

Matt Will

Johns Hopkins University

Art Wilson

George Washington University

This list is almost surely incomplete. We know how much we owe to our colleagues at the Bank of England, the London Business School, and MIT's Sloan School of Management. In many cases, the ideas that appear in this book are as much their ideas as ours. Finally, we record the continuing thanks due to our wives, Diana and Maureen, who were unaware when they married us that they were also marrying *The Principles of Corporate Finance*.

Richard A. Brealey Stewart C. Myers

# **BRIEF CONTENTS**

PART ONE	VALUE 1	PART THREE	PRACTICAL
Chapter 1	FINANCE AND THE FINANCIAL MANAGER 3		PROBLEMS IN CAPITAL BUDGETING 257
Chapter 2	PRESENT VALUE AND THE OPPORTUNITY COST OF CAPITAL 15	Chapter 10	A PROJECT IS NOT A BLACK BOX 259
Chapter 3	HOW TO CALCULATE PRESENT VALUES 35	Chapter 11	WHERE POSITIVE NET PRESENT VALUES COME FROM 291
Chapter 4	THE VALUE OF COMMON STOCKS 61	Chapter 12	MAKING SURE MANAGERS MAXIMIZE
Chapter 5	WHY NET PRESENT VALUE LEADS TO BETTER INVEST- MENT DECISIONS THAN OTHER CRITERIA 93	PART FOUR	NPV 315 FINANCING DECISIONS AND MARKET
Chapter 6	MAKING INVESTMENT DECISIONS WITH THE NET PRESENT VALUE RULE 121 RISK 151	Chapter 13	EFFICIENCY 349  CORPORATE FINANCING AND THE SIX LESSONS OF MARKET EFFICIENCY
Chapter 7	INTRODUCTION TO RISK, RETURN, AND THE	Chapter 14	AN OVERVIEW OF CORPORATE FINANCING 383
	OPPORTUNITY COST OF CAPITAL 153	Chapter 15	HOW CORPORATIONS ISSUE SECURITIES 405
Chapter 8 Chapter 9	RISK AND RETURN 187  CAPITAL BUDGETING AND  RISK 221	PART FIVE	DIVIDEND POLICY AND CAPITAL STRUCTURE 437

Chapter 16	THE DIVIDEND CONTROVERSY 439	PART NINE	FINANCIAL PLANNING AND
Chapter 17	DOES DEBT POLICY MATTER? 473		SHORT-TERM FINANCIAL MANAGEMENT 819
Chapter 18	HOW MUCH SHOULD A FIRM BORROW? 499	Chapter 28	FINANCIAL ANALYSIS AND PLANNING 820
Chapter 19	FINANCING AND VALUATION 541	Chapter 29	SHORT-TERM FINANCIAL PLANNING 855
PART SIX Chapter 20	OPTIONS 581 SPOTTING AND VALUING	Chapter 30	CREDIT MANAGEMENT 879
Chapter 21	OPTIONS 583 REAL OPTIONS 619	Chapter 31 Chapter 32	CASH MANAGEMENT 899 SHORT-TERM LENDING
Chapter 22 PART SEVEN	WARRANTS AND CONVERTIBLES 645 DEBT FINANCING	PART TEN	AND BORROWING 917 MERGERS, CORPORATE
Chapter 23	667 VALUING DEBT 669		CONTROL, AND GOVERNANCE 939
Chapter 24	THE MANY DIFFERENT KINDS OF DEBT 709	Chapter 33 Chapter 34	MERGERS 940 CONTROL, GOVERNANCE,
Chapter 25 PART EIGHT	LEASING 735 RISK MANAGEMENT 759	PART ELEVEN	AND FINANCIAL ARCHITECTURE 976 CONCLUSIONS 1005
Chapter 26 Chapter 27	MANAGING RISK 760  MANAGING INTERNATIONAL RISKS 790	Chapter 35	CONCLUSION: WHAT WE DO AND DO NOT KNOW ABOUT FINANCE 1006

# **CONTENTS**

PART ONE	VALUE 1	Chapter 3	
Chapter 1	FINANCE AND THE FINANCIAL MANAGER 3	3.1	PRESENT VALUES 35 Valuing Long-Lived Assets 35
1.1			Valuing Cash Flows in Several
1.2			Periods / Why the Discount Factor
	Manager 5		Declines as Futurity Increases—And
1.3	Who is the Financial Manager? 7		a Digression on Money Machines /
1.4	Separation of Ownership		How Present Value Tables Help the
	and Management 8	3.2	Lazy
1.5	Financial Markets 9	3.2	Looking for Shortcuts—Perpetu-
	Financial Institutions		ities and Annuities 39
1.6	Topics Covered in this Book 12		How to Value Growing Perpetuities /
1.7	<i>y</i> ==	3.3	How to Value Annuities
	Further Reading 13	3.3	Compound Interest and Present Values 43
	Quiz 14		
Chapter 2	PRESENT VALUE AND	3.4	A Note on Compounding Intervals  Nominal and Real Rates
	THE OPPORTUNITY COST	0.4	of Interest 47
	OF CAPITAL 15	3.5	Using Present Value Formulas
2.1	Introduction to Present Value 16	0.0	to Value Bonds 49
	Calculating Present Value / Net		What Happens When Interest Rates
	Present Value / A Comment on Risk		Change? / Compounding Intervals
	and Present Value / Present Values		and Bond Prices
	and Rates of Return / The Opportu-	3.6	Summary 52
	nity Cost of Capital / Two Sources	0.0	Further Reading 53
	of Confusion		Quiz 53
2.2	Foundations of the Net Present		Practice Questions 54
	Value Rule 21		Challenge Questions 58
2.3	A Fundamental Result 24		MINICASE: The Jones Family,
	Other Corporate Goals		Incorporated 58
2.4	Do Managers Really Look After		
	the Interests of Shareholders? 25	Chapter 4	THE VALUE OF COMMON
2.5	Should Managers Look After the		STOCKS 61
	Interests of Shareholders? 26	4.1	How Common Stocks are Traded
2.6	Summary 28		62
	Further Reading 29	4.2	How Common Stocks are Valued
	Quiz 29		63
	Practice Questions 31		Today's Price / But What Determines
	Challenge Questions 33		Next Year's Price?

4.3 A Simple Way to Estimate the Capitalization Rate 66
Using the DCF Model to Set Gas and Electricity Prices / Some Warnings about Constant-Growth Formulas

- 4.4 The Link Between Stock Price and Earnings per Share 72
  Calculating the Present Value of Growth Opportunities for Fledgling Electronics / Some Examples of Growth Opportunities? / What Do Price–Earnings Ratios Mean?
- 4.5 Valuing a Business by Discounted Cash Flow 77

  Example: Valuing Icarus Air / Valuing the Concatenator Business / Valuation Format / Estimating Horizon Value / A Further Reality Check
- 4.6 Summary 83
  Further Reading 84
  Quiz 85
  Practice Questions 86
  Challenge Questions 88
  MINICASE: Reeby Sports 90
- Chapter 5 WHY NET PRESENT VALUE LEADS TO BETTER INVEST-MENT DECISIONS THAN OTHER CRITERIA 93
  - **5.1** A Review of the Basics 94 Net Present Value's Competitors
  - **5.2** Payback 96 The Payback Rule
  - **5.3** Book Rate of Return 97
  - 5.4 Internal (or Discounted-Cash-Flow) Rate of Return 98
    Pitfall 1—Lending or Borrowing /
    Pitfall 2—Multiple Rates of Return /
    Pitfall 3—Mutually Exclusive
    Projects / Pitfall 4—What Happens
    when We Can't Finesse the Term
    Structure of Interest Rates? / The
    Verdict on IRR
  - 5.5 Choosing the Capital
    Expenditure Program when
    Resources are Limited 108
    An Easy Problem in Capital
    Rationing / Some More Elaborate
    Capital Rationing Models / Uses of
    Capital Rationing Models

- 5.6 Summary 113
  Further Reading 115
  Quiz 115
  Practice Questions 117
  Challenge Questions 119
- Chapter 6 MAKING INVESTMENT DECISIONS WITH THE NET PRESENT VALUE RULE 121
  - 6.1 What to Discount 121
    Only Cash Flow is Relevant /
    Estimate Cash Flows on an
    Incremental Basis / Treat
    Inflation Consistently
  - 6.2 Example—IM&C Project 126
    Separating Investment and Financing Decisions / A Further Note on
    Estimating Cash Flow / A Further
    Note on Depreciation / A Final Comment on Taxes / Project Analysis /
    Calculating NPV in Other Countries
    and Currencies
  - 6.3 Project Interactions 134
    Case 1: Optimal Timing of
    Investment / Case 2: Choosing
    between Long- and Short-Lived
    Equipment / Case 3: Deciding When
    to Replace an Existing Machine /
    Case 4: Cost of Excess Capacity /
    Case 5: Fluctuating Load Factors
  - 6.4 Summary 141
    Further Reading 142
    Quiz 142
    Practice Questions 143
    Challenge Questions 148
    MINICASE: New Economy
    Transport 149

#### PART TWO RISK 151

- Chapter 7 INTRODUCTION TO RISK, RETURN, AND THE OPPORTUNITY COST OF CAPITAL 153
  - 7.1 Seventy-two Years of Capital
    Market History in One Easy
    Lesson 153
    Arithmetic Averages and Compound
    Annual Returns / Using Historical

- Evidence to Evaluate Today's Cost of Capital
- **7.2** Measuring Portfolio Risk 160 Variance and Standard Deviation / Measuring Variability / How Diversification Reduces Risk
- **7.3** Calculating Portfolio Risk 169 General Formula for Computing Portfolio Risk / Limits to Diversification
- 7.4 How Individual Securities Affect Portfolio Risk 173 Market Risk is Measured by Beta / Why Security Betas Determine Portfolio Risk
- **7.5** Diversification and Value Additivity 178
- 7.6 Summary 179

   Further Reading 180
   Quiz 180
   Practice Questions 182
   Challenge Questions 185

#### Chapter 8 RISK AND RETURN 187

- **8.1** Harry Markowitz and the Birth of Portfolio Theory 187
  Combining Stocks into Portfolios / We Introduce Borrowing and Lending
- 8.2 The Relationship between Risk and Return 195

  Some Estimates of Expected Returns

  / Review of the Capital Asset Pricing Model / What if a Stock Did Not Lie on the Security Market Line?
- 8.3 Validity and Role of the Capital Asset Pricing Model 199 Test of the Capital Asset Pricing Model / Assumptions behind the Capital Asset Pricing Model
- 8.4 Some Alternative Theories 203
  Consumption Betas versus Market
  Betas / Arbitrage Pricing Theory /
  A Comparison of the Capital Asset
  Pricing Model and Arbitrage Pricing
  Theory / APT Example / The ThreeFactor Model
- 8.5 Summary 211
  Further Reading 213
  Quiz 214
  Practice Questions 216
  Challenge Questions 219

### **Chapter 9** CAPITAL BUDGETING AND RISK 221

- **9.1** Measuring Betas 224
  Perfect Pitch and the Cost of Capital
- 9.2 Capital Structure and the
  Company Cost of Capital 228
  How Changing Capital Structure
  Affects Expected Returns / How
  Changing Capital Structure Affects
  Beta / Capital Structure and
  Discount Rates
- 9.3 How to Estimate the Company
  Cost of Capital—an Example 232
  The Expected Return on Pinnacle
  West's Common Stock / Estimating
  Pinnacle's Company Cost of Capital
- 9.4 Discount Rates for International Projects 234
  Foreign Investments Are Not Always Riskier / Foreign Investment in the United States / Do Some Countries Have a Lower Cost of Capital?
- 9.5 Setting Discount Rates When You Can't Calculate Beta 237
  Avoiding Fudge Factors in Discount Rates / What Determines Asset
  Betas? / Searching for Clues
- 9.6 Another Look at Risk and
  Discounted Cash Flow 242
  Valuing Certainty-Equivalent Flows
  / When You Cannot Use a Single
  Risk-Adjusted Discount Rate / A
  Common Mistake
- 9.7 Summary 246
- 9.8 Appendix: Using the Capital
  Asset Pricing Model to Calculate
  Certainty Equivalents 248
  Further Reading 249
  Quiz 250
  Practice Questions 251
  Challenge Questions 254
  MINICASE: Holiport
  Corporation 255

# PART THREE PRACTICAL PROBLEMS IN CAPITAL BUDGETING 257

Chapter 10 A PROJECT IS NOT A BLACK BOX 259

- 10.1 Sensitivity Analysis 260

  Value of Information / Limits to Sensitivity Analysis / Examining the

  Project under Different Scenarios /

  Break-Even Analysis / Operating

  Leverage and Break-Even Points
- 10.2 Monte Carlo Simulation 268
  Simulating the Electric Scooter Project / Simulation of Pharmaceutical
  Research and Development / Misusing Simulation
- 10.3 Decision Trees and Subsequent
  Decisions 275
  An Example: Vegetron / A Tougher
  Example: Magna Charter / Bailing
  Out / Abandonment Value and
  Capital Budgeting / Pro and Con
  Decision Trees / Decision Trees and
  Monte Carlo Simulation
- 10.4 Summary 282
   Further Reading 284
   Quiz 284
   Practice Questions 285
   Challenge Questions 287
   MINICASE: Waldo County 288
- Chapter 11 WHERE POSITIVE NET PRESENT VALUES COME FROM 291
  - 11.1 Look First to Market Values 291
    The Cadillac and the Movie Star /
    Example: Investing in a New
    Department Store / Another
    Example: Opening a Gold Mine
  - 11.2 Forecasting Economic Rents 297 How One Company Avoided a \$100 Million Mistake
  - 11.3 Example: Marvin Enterprises
    Decides to Exploit a New
    Technology 300
    Forecasting Prices of Gargle Blasters
    / The Value of Marvin's New Expansion / Alternative Expansion Plans /
    The Value of Marvin Stock / The
    Lessons of Marvin Enterprises
  - 11.4 Summary 307
    Further Reading 308
    Quiz 308
    Practice Questions 309
    Challenge Questions 311
    MINICASE: Ecsy-Cola 313

- **Chapter 12** MAKING SURE MANAGERS MAXIMIZE NPV 315
  - 12.1 The Capital Investment Process
    316
    Project Authorizations / Some
    Investments May Not Show Up
    in the Capital Budget / Postaudits
  - 12.2 Decision Makers Need Good Information 318 Establishing Consistent Forecasts / Reducing Forecast Bias / Getting Senior Management the Information That It Needs / Eliminating Conflicts of Interest
  - 12.3 Incentives 321
    Overview: Agency Problems in
    Capital Budgeting / Monitoring /
    Compensation
  - 12.4 Measuring and Rewarding Performance: Residual Income and EVA 325 Pros and Cons of EVA / Applying EVA to Companies
  - 12.5 Biases in Accounting Measures of Performance 330
    Biases in Accounting Rates of Return / Measuring the Profitability of the Nodhead Supermarket—
    Another Example
  - 12.6 Measuring Economic Profitability 335

    Do the Biases Wash Out in the Long Run? / What Can We Do about Biases in Accounting Profitability Measures? / Do Managers Worry Too Much about Book Profitability?
  - Further Reading 342
    Quiz 342
    Practice Questions 343
    Challenge Questions 345
- PART FOUR FINANCING
  DECISIONS
  AND MARKET
  EFFICIENCY 349
  - Chapter 13 CORPORATE FINANCING AND THE SIX LESSONS OF MARKET EFFICIENCY 351

比为试读,需要完整PDF请访问: www.ertongbook.com