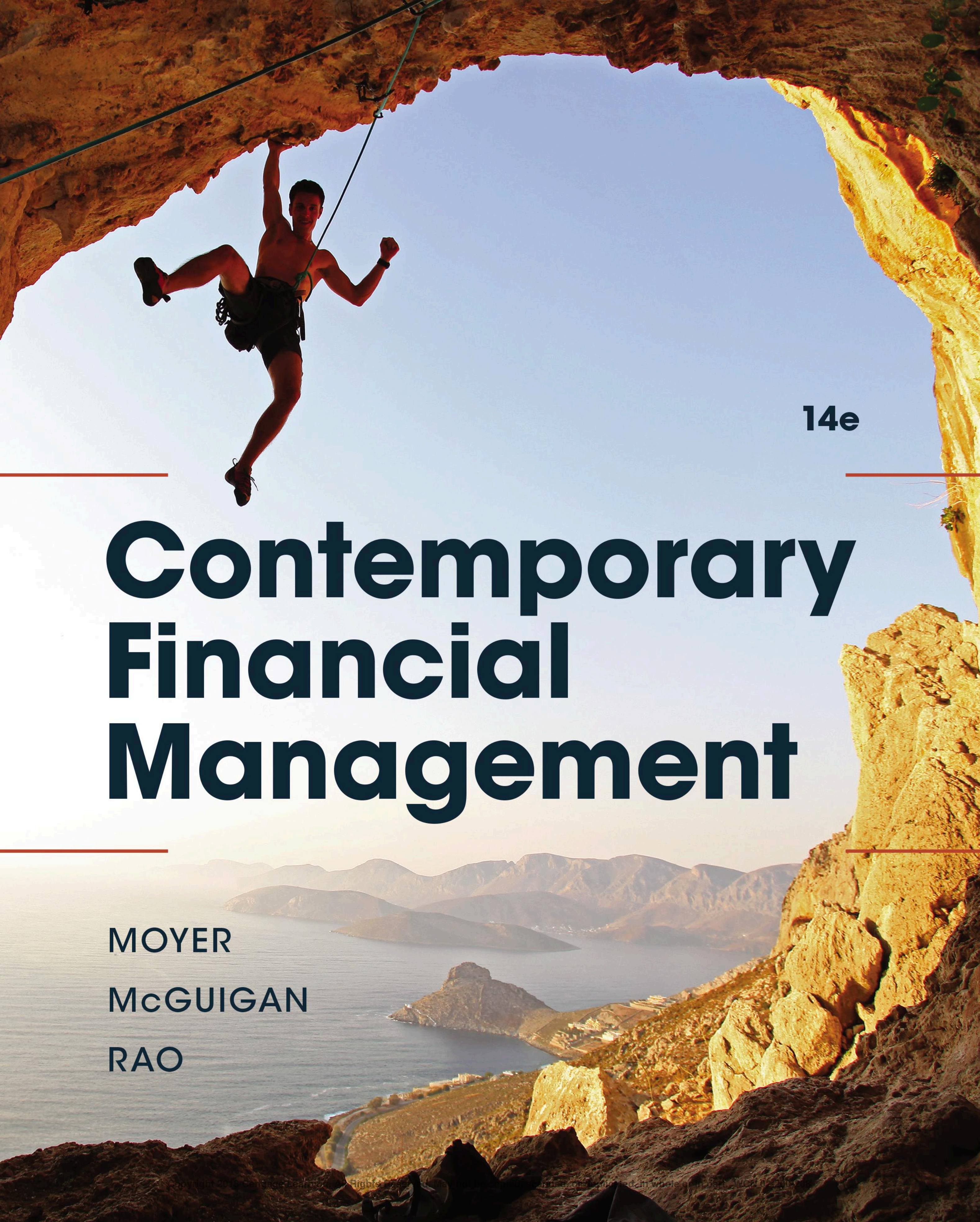
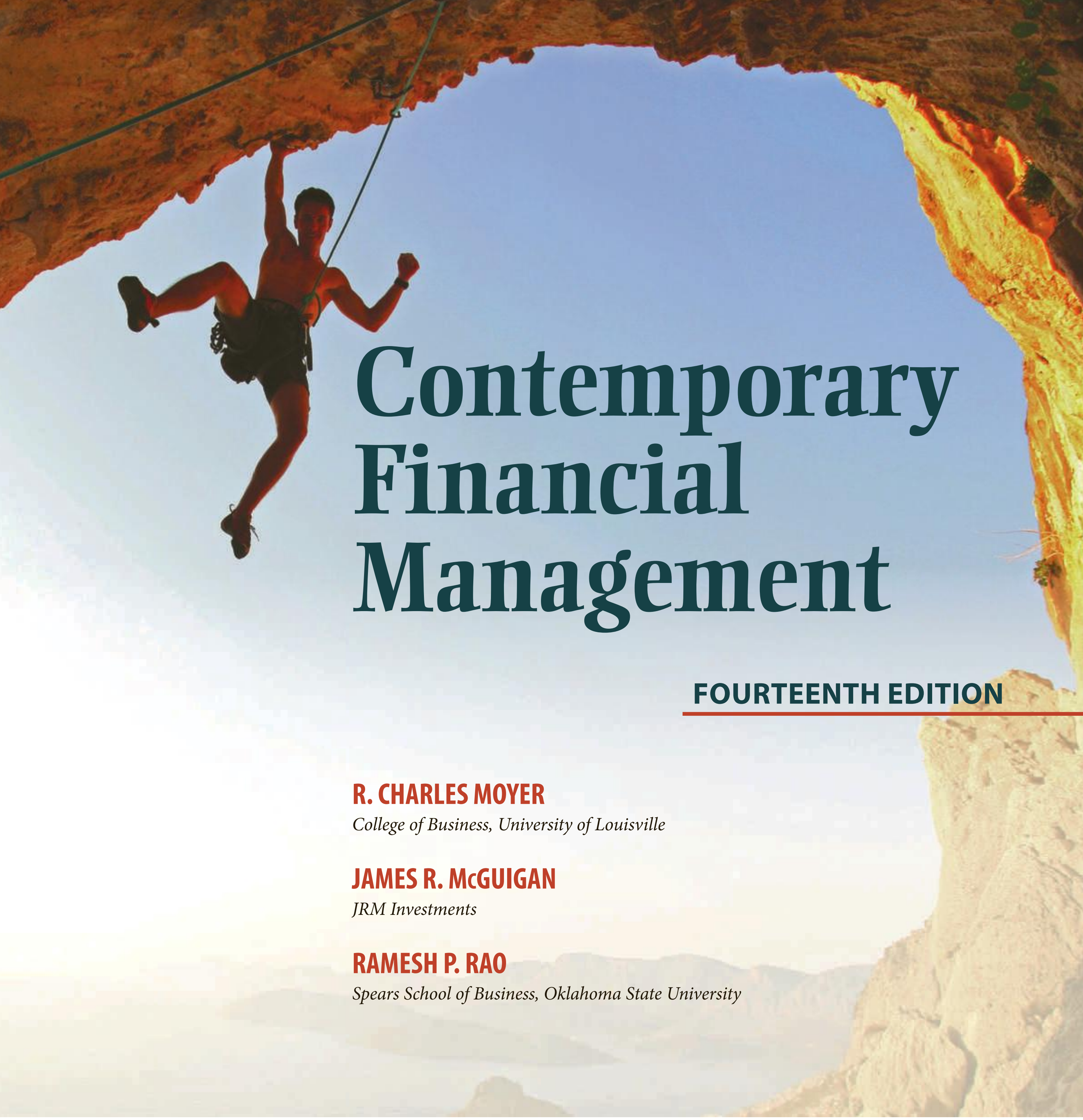


14e

Contemporary Financial Management

MOYER
McGUIGAN
RAO



Contemporary Financial Management

FOURTEENTH EDITION

R. CHARLES MOYER
College of Business, University of Louisville

JAMES R. McGUIGAN
JRM Investments

RAMESH P. RAO
Spears School of Business, Oklahoma State University

CENGAGE Learning®

Australia • Brazil • Mexico • Singapore • United Kingdom • United States

Contemporary Financial Management, 14e

R. Charles Moyer, James R. McGuigan, and Ramesh P. Rao

Sr. Vice President, General Manager of Social Sciences, and Qualitative Business: Erin Joyner

Senior Product Manager: Joe Sabatino

Associate Content Developer: Brad Sullender

Senior Marketing Manager: Nate Anderson

Marketing Coordinator: Hillary Johns

Art and Cover Direction, Production Management, and Composition: Lumina Datamatics, Inc.

Media Developer: Mark Hopkinson

Intellectual Property

Analyst: Brittani Morgan

Project Manager: Erika Mugavin

Manufacturing Planner: Kevin Kluck

Cover Image(s): ©iStockphoto/photobac

For product information and technology assistance, contact us at
Cengage Learning Customer & Sales Support, 1-800-354-9706

For permission to use material from this text or product,
submit all requests online at **www.cengage.com/permissions**
Further permissions questions can be emailed to
permissionrequest@cengage.com

Library of Congress Control Number: 2016948639

ISBN: 978-1-337-09058-2

Cengage Learning
20 Channel Center Street
Boston, MA 02210
USA

Cengage Learning is a leading provider of customized learning solutions with employees residing in nearly 40 different countries and sales in more than 125 countries around the world. Find your local representative at **www.cengage.com**.

Cengage Learning products are represented in Canada by Nelson Education, Ltd.

To learn more about Cengage Learning Solutions, visit **www.cengage.com**

Purchase any of our products at your local college store or at our preferred online store **www.cengagebrain.com**

Printed in Canada
Print Number: 01 Print Year: 2017

To Sally, Craig, and Laura
RCM

To Claire
JRM

To Uma, Anil, and Nikhil
RPR

About the Authors

R. CHARLES MOYER

is a Professor of Finance and Entrepreneurship and Dean Emeritus of the College of Business at the University of Louisville. Prior to this position, Dr. Moyer held the GMAC Insurance Chair in Finance and was Dean of the Babcock Graduate School of Management, Wake Forest University, was a Professor of Finance and Chairman of the Department of Finance at Texas Tech University, and previously taught at the University of Houston, Lehigh University, and the University of New Mexico. He earned his B.A. in economics (*cum laude*) from Howard University, where he was elected to Phi Beta Kappa, and received his M.B.A. and Ph.D. in Business from the University of Pittsburgh. Dr. Moyer spent a year at the Federal Reserve Bank of Cleveland and a year as a Sears-AACSB Federal Faculty Fellow at the Maritime Administration, U.S. Department of Commerce. Professor Moyer has taught in executive education programs and is frequently called upon to provide expert testimony in public utility rate cases across the nation. Dr. Moyer is a director of Capitala Finance Corp. and Summit Biosciences Inc.

In addition to coauthoring *Contemporary Financial Management*, 14th Edition, Dr. Moyer also coauthored *Managerial Economics*, 14th Edition (Cengage, 2017), and *Fundamentals of Contemporary Financial Management*, 2nd Edition (South-Western, 2007). He has published extensively in leading finance and economic journals, including *Financial Management*, *Journal of Financial and Quantitative Analysis*, *Journal of Finance*, *Financial Review*, *Journal of Financial Research*, *International Journal of Forecasting*, *Journal of Economics and Business*, and *Journal of Industrial Organization*, publishing over 90 articles and books. Dr. Moyer has served as a vice president of the Financial Management Association, as a director of the Financial Management Association, the Eastern Finance Association, and the Southern Finance Association, as a Secretary/Treasurer of the Financial Management Association, and as President of the Southern Finance Association.

JAMES R. McGUIGAN

currently owns and operates his own numismatic investment firm. Prior to this endeavor, he was Associate Professor of Finance and Business Economics in the School of Business Administration at Wayne State University, where he taught in the undergraduate and masters programs for 10 years. He also taught at the University of Pittsburgh and Point Park College. Dr. McGuigan received his undergraduate degree from Carnegie-Mellon University. His graduate degrees are from the Graduate Schools of Business at the University of Chicago (M.B.A.) and the University of Pittsburgh (Ph.D.). He has published articles dealing with his research on options in the *Journal of Financial and Quantitative Analysis*. In addition to his interests in financial management, Dr. McGuigan has coauthored books in managerial economics, including *Managerial Economics*, 14th Edition (Cengage, 2017), which he coauthored with R. Charles Moyer and Frederick Harris, and *Fundamentals of Contemporary Financial Management,* 2nd Edition (South-Western, 2007), coauthored with R. Charles Moyer and Ramesh P. Rao.

RAMESH P. RAO

is a professor and holds the Paul C. Wise Chair of Finance in the Spears School of Business, Oklahoma State University. Previously he was on the faculty at Texas Tech

University, Wayne State University, and the University of Toledo. He earned a B.S. at the University of the Philippines, an M.B.A. from the Asian Institute of Management, and a Ph.D. from Texas Tech University. He has coauthored over 80 journal articles in publications such as *Journal of Business*, *Journal of Finance*, *Journal of Banking and Finance*, *Financial Management*, *Journal of Business Finance and Accounting*, *Journal of Empirical Finance*, *Journal of Financial Research*, *Financial Review*, and *Journal of Applied Corporate Finance*. In addition to coauthoring *Contemporary Financial Management*, 14th Edition, Dr. Rao also coauthored *Fundamentals of Contemporary Financial Management*, 2nd Edition (South-Western, 2007). He is an associate editor of *Journal of Financial Research* and *Financial Review*. He was a former coeditor of the *Journal of Applied Finance* (2007–2013). He is former program chair and president of the Southwestern Finance Association and a director of the Asian Finance Association. He has been recognized for his teaching and research excellence including the following awards: 2007 Southwestern Finance Association Outstanding Educator of the Year Award, Richard W. Poole Research Excellence Award (2015–2016, 2012–2013, 2009–2010, and 2008–2009), Chandler-Frates & Reitz Teaching Excellence Award-MBA Program (OSU-Tulsa campus, 2008), Regents Distinguished Research Award (2007), Merrick Foundation Teaching Award (2003), and MBA Outstanding Faculty Award (2003).

Brief Contents

Preface xxv

PART 1 Introduction

CHAPTER 1 The Role and Objective of Financial Management 2

CHAPTER 2 The Domestic and International Financial Marketplace 26
Appendix 2A: Taxes 61

CHAPTER 3 Evaluation of Financial Performance 66

CHAPTER 4 Financial Planning and Forecasting 114

PART 2 Determinants of Valuation

CHAPTER 5 The Time Value of Money 144
Appendix 5A: Continuous Compounding and Discounting 189

CHAPTER 6 Fixed-Income Securities: Characteristics and Valuation 192

CHAPTER 7 Common Stock: Characteristics, Valuation, and Issuance 226

CHAPTER 8 Analysis of Risk and Return 260

PART 3 The Capital Investment Decision

CHAPTER 9 Capital Budgeting and Cash Flow Analysis 308
Appendix 9A: Depreciation 339

CHAPTER 10 Capital Budgeting: Decision Criteria and Real Option Considerations 344
Appendix 10A: Mutually Exclusive Investments Having Unequal Lives 381

CHAPTER 11 Capital Budgeting and Risk 386

PART 4 The Cost of Capital, Capital Structure, and Dividend Policy

CHAPTER 12 The Cost of Capital 416

CHAPTER 13 Capital Structure Concepts 454

CHAPTER 14 Capital Structure Management in Practice 488
Appendix 14A: Breakeven Analysis 526

CHAPTER 15 Dividend Policy 538

PART 5 Working Capital Management

CHAPTER 16 **Working Capital Policy and Short-Term Financing 574**

CHAPTER 17 **The Management of Cash and Marketable Securities 628**

CHAPTER 18 **The Management of Accounts Receivable and Inventories 660**

PART 6 Additional Topics in Contemporary Financial Management

CHAPTER 19 **Lease and Intermediate-Term Financing 696**

CHAPTER 20 **Financing with Derivatives 726**
Appendix 20A: The Black-Scholes Option Pricing Model 752
Appendix 20B: Bond Refunding Analysis 756

CHAPTER 21 **Risk Management 760**

CHAPTER 22 **International Financial Management 778**

CHAPTER 23 **Corporate Restructuring 800**

Reference Materials
- Tables T-1
- Glossary G-1
- Solutions to Self-Test Problems S-1
- Check Answers to Selected Problems C-1
- Index I-1

Contents

Preface xxv

PART 1 Introduction

CHAPTER 1

The Role and Objective of Financial Management 2

1-1 Introduction 4

1-2 The Goal of Shareholder Wealth Maximization 5

- 1-2a Stakeholder Concerns 6
- 1-2b Divergent Objectives 7
- 1-2c Agency Problems 8

1-3 Maximization of Shareholder Wealth: Managerial Strategies 10

- 1-3a Determinants of Value 12
- 1-3b Managerial Actions to Influence Value 13

1-4 Forms of Business Organization 14

- 1-4a Sole Proprietorship 14
- 1-4b Partnership 14
- 1-4c Corporation 15

Ethical Issues: The Practice of Financial Management 16

- 1-4d Other Types of Business Organizations 18

1-5 Organization of the Financial Management Function 18

- 1-5a Financial Management and Other Disciplines 20

Entrepreneurial Issues: Shareholder Wealth Maximization 21

- 1-5b Marketing, Production, Quantitative Methods, and Human Resources Management 22

1-6 Career Opportunities in Finance 22

1-7 Professional Finance Affiliations and Certifications 23

1-8 Summary 23

1-9 Questions and Topics for Discussion 24

CHAPTER 2

The Domestic and International Financial Marketplace 26

2-1 Introduction 28

2-2 An Overview of the U.S. Financial System 28

- 2-2a Financial Assets 30
- 2-2b Financial Markets 30
- 2-2c Financial Intermediaries 31

2-3 The Structure and Operation of U.S. Security Markets 33

- 2-3a Security Exchanges and Stock Market Indexes 34
- 2-3b Regulation of the Security Markets 35

2-4 The Global Economy and Multinational Enterprises 37

2-5 Foreign Currency Markets and Exchange Rates 38

- 2-5a The Eurocurrency Market 38

2-5b The Euro: A Common European Currency 39
2-5c Direct and Indirect Quotes 39
2-5d Spot Rates 39
2-5e Forward Rates 40
2-5f Foreign Currency Futures 41
2-5g Foreign Currency Options 42

2-6 Market Efficiency 42
2-6a Information and Capital Market Efficiency 43
2-6b Degrees of Market Efficiency 44
2-6c Implications of Market Efficiency for Financial Managers 46
2-6d Behavioral Finance Perspectives on the Financial Marketplace 47

2-7 Holding Period Returns 48
Ethical Issues: Insider Trading 49

2-8 Overview of the Financial Crisis beginning in 2007 49
International Issues: Market Efficiency Outside the United States 50
2-8a Causes of the Financial Crisis 51
2-8b How Firms Were Affected by the Financial Crisis 54

2-9 Income Taxes and Financial Management 55
2-9a Implications of Income Taxes for Financial Managers 55
2-9b Tax Rate Used in the Text 56

2-10 Summary 56

2-11 Questions and Topics for Discussion 57

2-12 Self-Test Problems 58

2-13 Problems 58

APPENDIX 2A: TAXES 61

2A-1 Introduction 61

2A-2 Corporate Income Taxes 61
Entrepreneurial Issues: S Corporations 63

2A-3 Questions and Topics for Discussion 63

2A-4 Self-Test Problems 63

2A-5 Problems 64

CHAPTER 3
Evaluation of Financial Performance 66

3-1 Introduction 68
3-1a Uses of Financial Analysis 68
3-1b Interpreting Financial Ratios 68

3-2 Basic Classifications of Financial Ratios 69
3-2a Key Financial Statements 70
3-2b Liquidity Ratios 72
3-2c Asset Management Ratios 74
3-2d Financial Leverage Management Ratios 77
3-2e Profitability Ratios 80
3-2f Market-Based Ratios 81
3-2g Dividend Policy Ratios 83

3-3 Summary of Financial Ratio Analysis 84

3-4 Trend Analysis 85

3-5 Analysis of Profitability: Return on Investment 85

3-6 Analyzing Profitability Through Return on Stockholders' Equity 90

3-7 Sources of Comparative Financial Data 91

3-8 A Word of Caution About Financial Ratio Analysis 92

3-9 Earnings and Balance Sheet Quality and Financial Analysis 93

3-9a Earnings Quality 93

3-9b Balance Sheet Quality 95

Ethical Issues: The Sarbanes-Oxley Act and the Financial Reporting Process 96

3-10 Market Value Added/Economic Value Added: An Alternative Measure of Performance 97

3-10a The Market Value Added Concept 97

3-10b Economic Value Added 98

International Issues: Financial Analysis of Multinational Corporations 99

3-11 Inflation and Financial Statement Analysis 100

3-12 Summary 101

3-13 Questions and Topics for Discussion 103

3-14 Self-Test Problems 104

3-15 Problems 105

CHAPTER 4

Financial Planning and Forecasting 114

4-1 Introduction 116

4-2 Financial Planning 116

4-3 Cash Flow Analysis 118

4-3a The Cash Flow Generation Process 118

4-3b Importance of Cash Flows 119

4-3c Cash Flows and Shareholder Wealth 120

4-3d The Cash Flow Concept 120

4-3e The Statement of Cash Flows 121

4-4 Financial Forecasting 125

4-4a Percentage of Sales Forecasting Method 125

4-4b Cash Budgeting 128

4-4c Pro Forma Statement of Cash Flows 131

4-4d Computerized Financial Forecasting and Planning Models 133

4-4e Using Financial Ratios to Forecast Future Financial Performance 134

4-5 Summary 135

4-6 Questions and Topics for Discussion 136

4-7 Self-Test Problems 136

4-8 Problems 137

PART 2 Determinants of Valuation

CHAPTER 5

The Time Value of Money 144

5-1 Introduction 146

5-1a A Word About Notation 147

5-1b CFM Excel Templates 147

5-2 The Use of Financial Calculators and Spreadsheets 147

5-2a Calculator Solution 148

5-2b Spreadsheet Solution 148

5-3 Interest 149

5-4 Simple Interest 149

5-5 Compound Interest and Future Value 151
5-5a Solving for the Interest Rate 154
5-5b Solving for the Number of Compounding Periods 154

5-6 Present Value 155
5-6a Solving for Interest and Growth Rates 158

5-7 Annuities 158
5-7a Future Value of an Ordinary Annuity 160
5-7b Future Value of an Annuity Due 162
5-7c Present Value of an Ordinary Annuity 163
5-7d Present Value of an Annuity Due 167

5-8 Present Value: Some Additional Cash Flow Patterns 168
5-8a Perpetuities 168
5-8b Present Value of an Uneven Payment Stream 169
5-8c Present Value of Deferred Annuities 171

5-9 Compounding Periods and Effective Interest Rates 172
5-9a Effect of Compounding Periods on Present and Future Values 172

5-10 Effective Rate Calculations 174

5-11 Net Present Value Rule 175

5-12 Summary 176

5-13 Questions and Topics for Discussion 178

5-14 Self-Test Problems 179

5-15 Problems 180

APPENDIX 5A: CONTINUOUS COMPOUNDING AND DISCOUNTING 189

5A-1 Continuous Compounding 189

5A-2 Continuous Discounting 190

5A-3 Effective Rate Calculations 190

5A-4 Self-Test Problems 190

5A-5 Problems 191

CHAPTER 6

Fixed-Income Securities: Characteristics and Valuation 192

6-1 Introduction 194

6-2 Characteristics of Long-Term Debt 195
6-2a Types of Long-Term Debt 195
6-2b Features of Long-Term Debt 196
6-2c Information on Debt Financing Activities 200
6-2d Bond Ratings 203
6-2e Users of Long-Term Debt 203
6-2f Advantages and Disadvantages of Long-Term Debt Financing 205

International Issues: The International Bond Market 205

6-3 Valuation of Assets 206
6-3a Capitalization of Cash Flow Method 206
6-3b Market Value of Assets and Market Equilibrium 207
6-3c Book Value of an Asset 208

6-4 Bond Valuation 208
6-4a Bonds Having Finite Maturity Dates 209
6-4b Perpetual Bonds 212
Ethical Issues: Leveraged Buyouts and Bond Values 213
6-4c Yield-to-Maturity of a Bond 213

6-5 Characteristics of Preferred Stock 215
6-5a Features of Preferred Stock 216
6-5b Trading of Preferred Shares 217
6-5c Users of Preferred Stock 217
6-5d Advantages and Disadvantages of Preferred Stock Financing 218
6-5e Valuation of Preferred Stock 218

6-6 Summary 219

6-7 Questions and Topics for Discussion 220

6-8 Self-Test Problems 221

6-9 Problems 222

CHAPTER 7
Common Stock: Characteristics, Valuation, and Issuance 226

7-1 Introduction 228
7-1a Understanding Stock Quotations 228

7-2 Characteristics of Common Stock 229
7-2a Common Stock and Accounting 230
7-2b Stockholder Rights 231
7-2c Other Features of Common Stock 232
Ethical Issues: Unequal Voting Rights 233
7-2d Advantages and Disadvantages of Common Stock Financing 234

7-3 The Security Offering Process: Role of the Investment Banker 235
7-3a How Securities Are Sold 236

7-4 Valuation of Common Stock 241
7-4a One-Period Dividend Valuation Model 242
International Issues: Global Equity Markets 242
7-4b Multiple-Period Dividend Valuation Model 243
7-4c A General Dividend Valuation Model 243

7-5 Applications of the General Dividend Valuation Model 245
7-5a Zero Growth Dividend Valuation Model 245
7-5b Constant Growth Dividend Valuation Model 246
7-5c Nonconstant Growth Dividend Valuation Model 248
Entrepreneurial Issues: Valuation of Closely Held Firms 249

7-6 Summary 251

7-7 Questions and Topics for Discussion 252

7-8 Self-Test Problems 253

7-9 Problems 254

CHAPTER 8
Analysis of Risk and Return 260

8-1 Introduction 262

8-2 Meaning and Measurement of Risk 262
8-2a Probability Distributions 263
8-2b Summary of Notation 264
8-2c Expected Value 264

8-2d Standard Deviation: An Absolute Measure of Risk 265
8-2e Normal Probability Distribution 266
8-2f Coefficient of Variation: A Relative Measure of Risk 268
8-2g Risk as an Increasing Function of Time 269

8-3 Relationship Between Risk and Return 270
8-3a Risk-Free Rate of Return 270
8-3b Risk Premium 271
8-3c Business and Financial Risk 274
8-3d Risk and Required Returns for Various Types of Securities 275

8-4 Investment Diversification and Portfolio Risk Analysis 276
8-4a Expected Returns from a Portfolio 278
8-4b Portfolio Risk 279
8-4c Efficient Portfolios and the Capital Market Line 283

8-5 Portfolio Risk and the Capital Asset Pricing Model 285
8-5a Systematic and Unsystematic Risk 285
8-5b Security Market Line (SML) 286
8-5c Beta: A Measure of Systematic Risk 287
8-5d Security Market Line and Beta 290
8-5e Inflation and the Security Market Line 293
8-5f Uses of the CAPM and Portfolio Risk Concepts 293
International Issues: Diversification and Multinational Corporations 293
8-5g Assumptions and Limitations of the CAPM 294
Ethical Issues: High-Risk Securities 295

8-6 Other Dimensions of Risk 295

8-7 Summary 296

8-8 Questions and Topics for Discussion 298

8-9 Self-Test Problems 299

8-10 Problems 301

PART 3 The Capital Investment Decision

CHAPTER 9
Capital Budgeting and Cash Flow Analysis 308

9-1 Introduction 310

9-2 Key Terms and Concepts in Capital Budgeting 312
9-2a Cost of Capital 312
9-2b How Projects Are Classified 312
9-2c Availability of Funds 312

9-3 Basic Framework for Capital Budgeting 313

9-4 Generating Capital Investment Project Proposals 314
9-4a Classifying Investment Projects 315
9-4b Project Size and the Decision-Making Process 316

9-5 Principles of Estimating Cash Flows 316

9-6 Net Investment (NINV) 318

9-7 Net (Operating) Cash Flows 319
9-7a Recovery of After-Tax Salvage Value 321
9-7b Recovery of Net Working Capital 322
9-7c Interest Charges and Net Cash Flows 322
9-7d Depreciation 322

9-8 Asset Expansion Projects 324
9-8a Calculating the Net Investment 324
9-8b Calculating Annual Net Cash Flows 325

9-9 Asset Replacement Projects 326
9-9a Calculating the Net Investment 326
9-9b Calculating Annual Net Cash Flows 327

9-10 Problems in Cash Flow Estimation 329

9-11 The Practice of Cash Flow Estimation for Capital Budgeting 329
Ethical Issues: Cash Flow Estimation Biases 330

9-12 Summary 331

9-13 Questions and Topics for Discussion 332

9-14 Self-Test Problems 332

9-15 Problems 333

APPENDIX 9A: DEPRECIATION 339

9A-1 Introduction to Depreciation 339

9A-2 Straight-Line Depreciation 339

9A-3 Modified Accelerated Cost Recovery System (MACRS) 340

9A-4 Real Property 342

9A-5 Questions and Topics for Discussion 342

9A-6 Problems 343

CHAPTER 10
Capital Budgeting: Decision Criteria and Real Option Considerations 344

10-1 Introduction 346

10-2 Decision Models for Evaluating Alternatives 346
10-2a Net Present Value 346
10-2b Profitability Index 351
10-2c Internal Rate of Return 352
10-2d Payback (PB) Period 356

10-3 Capital Rationing and the Capital Budgeting Decision 359

10-4 Reviewing and Post-Auditing an Accepted Project 362

10-5 A Comprehensive Example of Capital Budgeting: Opening a New Bank Branch 363
International Issues: A Framework for International Capital Expenditure Decisions 365

10-6 Real Options in Capital Budgeting 367
10-6a Classification of Real Options in Capital Budgeting 367
Ethical Issues: The Use of Shareholder Resources 368
10-6b How Are Real Options Concepts Being Applied? 370

10-7 Summary 370

10-8 Questions and Topics for Discussion 371

10-9 Self-Test Problems 372

10-10 Problems 372

APPENDIX 10A: MUTUALLY EXCLUSIVE INVESTMENTS HAVING UNEQUAL LIVES 381

10A-1 Replacement Chains 381

10A-2 Equivalent Annual Annuities 382

10A-3 Problems 384

CHAPTER 11

Capital Budgeting and Risk 386

11-1 Introduction 388

11-2 Total Project Risk Versus Portfolio Risk 388

11-3 Adjusting for Total Project Risk 390

11-3a Net Present Value/Payback Approach 390
11-3b Simulation Analysis 390
11-3c Sensitivity Analysis 393
11-3d Scenario Analysis 395
11-3e Certainty Equivalent Approach 396
11-3f Risk-Adjusted Discount Rate Approach 398

11-4 Adjusting for Beta Risk in Capital Budgeting 399

11-4a The All-Equity Case 400
International Issues: Special Elements of Capital Budgeting Risk 401
11-4b The Equity and Debt Case 401
11-4c Computing the Risk-Adjusted Net Present Value 403

11-5 Summary 404

11-6 Questions and Topics for Discussion 405

11-7 Self-Test Problems 406

11-8 Problems 407

PART 4 The Cost of Capital, Capital Structure, and Dividend Policy

CHAPTER 12

The Cost of Capital 416

12-1 Introduction 418

12-2 Summary of Notation 419

12-3 Weighted Cost of Capital 419

12-3a Market Value Versus Book Value Weights 420
12-3b Gasco Inc.'s Weighted Cost of Capital 421
12-3c The Problem of "Lumpy" Capital 421

12-4 Relative Costs of Capital 422

12-5 Computing the Component Costs of Capital 424

12-5a Marginal Costs 424
12-5b Cost of Debt 424
12-5c Cost of Preferred Stock 426
12-5d Cost of Internal Equity Capital 427
12-5e Dividend Valuation Model Approach 427
12-5f Issues in Implementation 429
12-5g Capital Asset Pricing Model (CAPM) Approach 429
International Issues: Market Equity Risk Premiums Around the World 432
12-5h Risk Premium over Debt and Other Approaches for Estimating the Cost of Equity Capital 432
12-5i Cost of External Equity Capital 433

12-6 Divisional Costs of Capital 434

12-7 Determining the Weighted (Marginal) Cost of Capital Schedule 436

International Issues: The Cost of Capital for Multinational Companies 438

12-8 Determining the Optimal Capital Budget 439

Entrepreneurial Issues: The Cost of Capital 441

12-9 Cost of Depreciation-Generated Funds 442

12-10 Summary 442

12-11 Questions and Topics for Discussion 444

12-12 Self-Test Problems 444

12-13 Problems 445

CHAPTER 13
Capital Structure Concepts 454

13-1 Introduction 457

13-2 Capital Structure Decisions and Maximization of Shareholder Wealth 458
13-2a Assumptions of Capital Structure Analysis 458

13-3 Business Risk 458
13-3a Business Risk: Systematic or Unsystematic? 460

13-4 Financial Risk and Financial Leverage 460
13-4a Financial Risk: Systematic or Unsystematic? 462
13-4b Effect of Financial Leverage on Stockholder Returns and Risk 462

13-5 Capital Structure Theory 463
13-5a Capital Structure Without a Corporate Income Tax 464
13-5b Capital Structure with a Corporate Income Tax 467
13-5c Capital Structure with a Corporate Income Tax: Financial Distress Costs and Agency Costs 468
13-5d Value-Maximizing Capital Structure 472
13-5e The Cost of Capital and the Optimal Capital Structure 472
13-5f Other Considerations in the Capital Structure Decision 475

Ethical Issues: LBO Stakeholder Impacts 478

International Issues: Capital Structure 479

13-6 Managerial Implications of Capital Structure Theory 480

13-7 Summary 481

13-8 Questions and Topics for Discussion 482

13-9 Self-Test Problems 482

13-10 Problems 483

CHAPTER 14
Capital Structure Management in Practice 488

14-1 Introduction 490

14-2 Operating and Financial Leverage 491
14-2a Leverage and the Income Statement 491
14-2b Short-Run Costs 491
14-2c Long-Run Costs 493
14-2d Measurement of Operating and Financial Leverage 493
14-2e Degree of Operating Leverage 493
14-2f Degree of Financial Leverage 496
14-2g Degree of Combined Leverage 498
14-2h Effect of Leverage on Shareholder Wealth and the Cost of Capital 500

14-3 Other Financial Risk Measures 500

14-4 EBIT-EPS Analysis 501
- 14-4a EBIT-EPS Analysis and Capital Structure Decisions 504
- 14-4b EBIT-EPS Analysis and Stock Prices 506

14-5 Cash Insolvency Analysis 507

14-6 Other Factors to Consider in Making Capital Structure Decisions 510
- 14-6a Industry Standards 510
- 14-6b Profitability and Need for Funds 511
- *International Issues: Balancing Operating and Financial Risks at Nestlé* 512
- 14-6c Lender and Bond-Rater Requirements 512
- 14-6d Managerial Risk Aversion 513
- 14-6e Retention of Control 513

14-7 Summary 514

14-8 Questions and Topics for Discussion 515

14-9 Self-Test Problems 516

14-10 Problems 517

APPENDIX 14A: BREAKEVEN ANALYSIS 526

14A-1 Introduction 526

14A-2 Graphic Breakeven Analysis 526

14A-3 Algebraic Breakeven Analysis 527

14A-4 Examples of Breakeven Analysis 528

14A-5 DOL and Breakeven Analysis 531

14A-6 Breakeven Analysis and Risk Assessment 532

14A-7 Some Limitations of Breakeven Analysis 532

14A-8 Cash Breakeven Point 534

14A-9 Questions and Topics for Discussion 535

14A-10 Self-Test Problems 535

14A-11 Problems 536

CHAPTER 15

Dividend Policy 538

15-1 Introduction 540

15-2 Determinants of Dividend Policy 542
- 15-2a Industry and Company Variations in Dividend Payout Ratios 542
- 15-2b Legal Constraints 543
- 15-2c Restrictive Covenants 544
- 15-2d Tax Considerations 544
- 15-2e Liquidity and Cash Flow Considerations 545
- 15-2f Borrowing Capacity and Access to the Capital Markets 546
- 15-2g Earnings Stability 546
- 15-2h Growth Prospects 547
- 15-2i Shareholder Preferences 547
- 15-2j Protection Against Dilution 548

15-3 Dividend Policy and Firm Value 549
- 15-3a Arguments for the Irrelevance of Dividends 549
- 15-3b Arguments for the Relevance of Dividends 550
- 15-3c Transaction Costs 551

15-3d Taxes 551
15-3e Issuance (Flotation) Costs 551
15-3f Agency Costs 551
15-3g Conclusions Regarding Dividend Relevance 552

15-4 Dividend Policies 552
15-4a Passive Residual Policy 552
15-4b Stable Dollar Dividend Policy 553
15-4c Other Dividend Payment Policies 555
Entrepreneurial Issues: Dividend Policy 556
15-4d How Dividends Are Paid 557
International Issues: Dividend Policies for Multinational Firms 558
15-4e Dividend Reinvestment Plans 559

15-5 Stock Dividends and Stock Splits 559

15-6 Share Repurchases as Dividend Decisions 561
15-6a Procedures for Repurchasing Shares 561
15-6b Share Repurchase Versus Cash Dividend Example 562
15-6c Tax Considerations 563
15-6d Financial Flexibility 563
15-6e Signaling Effects 564
15-6f Earnings-per-Share Dilution 564
15-6g Agency Costs 564
15-6h Advantages and Disadvantages 565

15-7 Summary 565

15-8 Questions and Topics for Discussion 566

15-9 Self-Test Problems 567

15-10 Problems 567

PART 5 Working Capital Management

CHAPTER 16
Working Capital Policy and Short-Term Financing 574

16-1 Introduction 576

16-2 Working Capital Policy 576
16-2a Importance of Working Capital 577
16-2b Operating Cycle Analysis 578

16-3 Levels of Working Capital Investment 580
16-3a Profitability Versus Risk Trade-Off for Alternative Levels of Working Capital Investment 581
16-3b Optimal Level of Working Capital Investment 582

16-4 Proportions of Short-Term and Long-Term Financing 582
16-4a Cost of Short-Term Versus Long-Term Debt 583
16-4b Risk of Long-Term Versus Short-Term Debt 583

16-5 Profitability Versus Risk Trade-Off for Alternative Financing Plans 583
16-5a Optimal Proportions of Short-Term and Long-Term Debt 587

16-6 Overall Working Capital Policy 588

16-7 Short-Term Credit 589

16-8 Cost of Short-Term Funds 590

16-9 Trade Credit 591
16-9a Credit Terms 592
16-9b Cost of Trade Credit 592
16-9c Stretching Accounts Payable 594

16-10 Accrued Expenses and Deferred Income 594
16-10a Accrued Expenses 594
16-10b Deferred Income 594

16-11 Short-Term Bank Credit 595
Ethical Issues: Interest Rate Manipulation 596
16-11a Single Loans (Notes) 596
16-11b Lines of Credit 598
16-11c Revolving Credit Agreements 599
Ethical Issues: Tying Bank Loans to Other Services 599

16-12 Commercial Paper 601

16-13 Accounts Receivable Loans 602
16-13a Pledging Accounts Receivable 602
16-13b Factoring Accounts Receivable 604

16-14 Inventory Loans 605
16-14a Floating Liens 607
16-14b Trust Receipts 607
16-14c Terminal Warehouse and Field Warehouse Financing Arrangements 607
International Issues: Foreign Receivables Financing 608

16-15 Summary 609

16-16 Questions and Topics for Discussion 611

16-17 Self-Test Problems 612

16-18 Problems 614

CHAPTER 17

The Management of Cash and Marketable Securities 628

17-1 Introduction 630

17-2 Liquid Asset Balance 631
17-2a Cash Flows and the Cash Budget 632
17-2b Corporate-Bank Relations 633
17-2c Optimal Liquid Asset Balance 634
17-2d The Practice of Liquidity Management 635

17-3 Controlling the Collection and Disbursement of Cash 636
17-3a Float 637
17-3b Expediting Collections 637
17-3c Slowing Disbursements 642
Ethical Issues: Cash Management 643

17-4 Electronic Funds Transfer 644
17-4a Check Clearing for the 21st Century Act 645

17-5 Investing in Marketable Securities 645
17-5a Choosing Marketable Securities 645
Entrepreneurial Issues: Cash Management 646
17-5b Types of Marketable Securities 647
International Issues: Cash Management 651

17-6 Summary 653

17-7 Questions and Topics for Discussion 653

17-8 Self-Test Problems 654

17-9 Problems 655

CHAPTER 18

The Management of Accounts Receivable and Inventories 660

18-1 Introduction 662

18-2 Accounts Receivable Management 662

18-2a Shareholder Wealth and Optimal Investments in Accounts Receivable 663
18-2b Credit Standards 663
18-2c Credit Terms 666
18-2d Collection Effort 670
18-2e Monitoring Accounts Receivable 670

18-3 Evaluating Individual Credit Applicants 671

18-3a Gathering Information on the Credit Applicant 671
18-3b Analyzing Creditworthiness and Making the Credit Decision 672

18-4 Inventory Management 673

18-4a Benefits of Holding Inventories 674
18-4b Inventory-Related Costs 675

18-5 Inventory Control Models 676

18-5a Basic EOQ Model 677
18-5b Extensions of the Basic EOQ Model 680
18-5c Just-in-Time Inventory Management Systems 683

18-6 Summary 683

18-7 Questions and Topics for Discussion 685

18-8 Self-Test Problems 686

18-9 Problems 687

PART 6 Additional Topics in Contemporary Financial Management

CHAPTER 19

Lease and Intermediate-Term Financing 696

19-1 Introduction 698

19-2 Leasing 698

19-3 Types of Leases 699

19-3a Operating Leases 699
19-3b Financial or Capital Leases 699
19-3c Leveraged Leases 700

19-4 Advantages and Disadvantages of Leasing 703

19-4a Advantages 703

Entrepreneurial Issues: Leasing by Small Businessesa 704

19-4b Disadvantages 704

19-5 Tax and Accounting Aspects of Leases 705

19-5a Tax Status of True Leases 705
19-5b Leases and Accounting Practices 705

19-6 Determining Lease Payments: The Lessor's Perspective 706

19-7 Lease-Buy Analysis: The Lessee's Perspective 708

19-7a Example of Lease-Buy Analysis 710

19-8 Term Loans 710
19-8a Repayment Provisions 711
19-8b Interest Costs 712

19-9 Security Provisions and Protective Covenants 714
19-9a Security Provisions 714
19-9b Affirmative Covenants 715
19-9c Negative Covenants 715
19-9d Restrictive Covenants 715
19-9e Default Provisions 716

19-10 Suppliers of Term Loans 716
19-10a Commercial Banks and Savings and Loan Associations 716
19-10b Life Insurance Companies and Pension Funds 716
19-10c Small Business Administration (SBA) 717
19-10d Small Business Investment Companies (SBICs) 717
19-10e Industrial Development Authorities (IDAs) 717

19-11 Equipment Loans 717
19-11a Conditional Sales Contract 718
19-11b Chattel Mortgage 718

19-12 Summary 718

19-13 Questions and Topics for Discussion 719

19-14 Self-Test Problems 720

19-15 Problems 720

CHAPTER 20

Financing with Derivatives 726

20-1 Introduction 728

20-2 Options 729
20-2a Option Valuation Concepts 729
20-2b Variables Affecting Call Option Valuation 730
20-2c Option Valuation Models 732
20-2d Call Options on Bonds 732
20-2e Common Stock in an Options Framework 732

20-3 Convertible Securities 732
20-3a Features of Convertible Securities 733
20-3b Managing Long-Term Funding with Convertibles 733
20-3c Valuation of Convertible Securities 734
20-3d Converting Convertible Securities 736
20-3e Convertible Securities and Earnings Dilution 737

20-4 Warrants 737
20-4a Features of Warrants 738
20-4b Reasons for Issuing Warrants 738
20-4c Valuation of Warrants 739
20-4d Comparison of Convertible Securities and Warrants 739

20-5 Analysis of Rights Offerings 740
20-5a Valuation of Rights 740

20-6 Swaps 742
20-6a Interest Rate Swaps 742
20-6b Credit Default Swaps 743

20-7 Summary 744
20-7a Options 744

20-7b Convertible Securities 744
20-7c Warrants 744
20-7d Rights Offering 744
20-7e Swaps 745
20-8 Questions and Topics for Discussion 746
20-9 Self-Test Problems 746
20-10 Problems 747

APPENDIX 20A: THE BLACK-SCHOLES OPTION PRICING MODEL 752
20A-1 The Foundations of Option Valuation 752
20A-2 The Black-Scholes Option Pricing Model 753
20A-3 Applying the Black-Scholes Model 753
20A-4 Problems 754

APPENDIX 20B: BOND REFUNDING ANALYSIS 756
20B-1 The Bond Refunding Process 756
20B-2 Problems 758

CHAPTER 21
Risk Management 760
21-1 Introduction 762
21-2 Why Manage Risk? 763
21-3 Nonhedging Risk-Management Strategies 764
21-3a Acquisition of Additional Information 764
21-3b Diversification 765
21-3c Insurance 765
21-3d Gaining Control over the Operating Environment 766
21-3e Limited Use of Firm-Specific Assets 766
21-4 Hedging Strategies for Risk Management 767
21-4a Forward Contracts 767
21-4b Futures Contracts 767
21-4c A Long Hedge 769
21-4d A Short Hedge 771
21-5 Hedging Price Risk with Options 772
21-5a Final Comments Regarding Risk-Management Strategies 773
Ethical Issues: AIG, the Financial Crisis of 2008, and the Failure of Risk Management 774
21-6 Summary 775
21-7 Questions and Topics for Discussion 775
21-8 Self-Test Problems 775
21-9 Problems 776

CHAPTER 22
International Financial Management 778
22-1 Introduction 780
22-2 Factors That Affect Exchange Rates 781
22-2a Covered Interest Arbitrage and Interest Rate Parity 782
22-2b Purchasing Power Parity 783
22-2c Expectations Theory and Forward Exchange Rates 785

22-2d The International Fisher Effect 785
22-2e An Integrative Look at International Parity Relationships 786

22-3 Forecasting Future Exchange Rates 788
22-3a Using Forward Rates 788
22-3b Using Interest Rates 788

22-4 Foreign Exchange Risk 789
22-4a Transaction Exposure 789
22-4b Economic Exposure 791
22-4c Translation Exposure 792

Ethical Issues: Payment of Bribes Abroad 793

22-5 Summary 795

22-6 Questions and Topics for Discussion 796

22-7 Self-Test Problems 796

22-8 Problems 796

CHAPTER 23

Corporate Restructuring 800

23-1 Introduction 802

23-2 Mergers and Acquisitions 802
23-2a Mergers Defined 803
23-2b Merger Statistics 803
23-2c Types of Mergers 803
23-2d Form of Merger Transactions 805
23-2e Holding Companies 806
23-2f Joint Ventures 807
23-2g Leveraged Buyouts 807
23-2h Divestitures and Restructurings 808
23-2i Tender Offers 809
23-2j Rationale for Restructuring 809
23-2k Antitakeover Measures 810
23-2l Reasons for Mergers 811
23-2m Accounting Aspects of Mergers 812
23-2n Tax Aspects of Mergers 813
23-2o Valuation of Merger Candidates 814
23-2p Valuation Techniques 814
23-2q Analysis of a Merger: Earnings per Share and P/E Effects 817

23-3 Business Failure 819
23-3a Definitions of Business Failure 819
23-3b Business Failure Statistics 820
23-3c Causes of Business Failure 821
23-3d Alternatives for Failing Businesses 822
23-3e Informal Alternatives for Failing Businesses 823
23-3f Formal Alternatives for Failing Businesses Under the Bankruptcy Laws 824
23-3g Reorganization 825
23-3h Liquidation 826

23-4 Summary 828

23-5 Questions and Topics for Discussion 829

23-6 Self-Test Problems 830

23-7 Problems 831

Reference Materials
- Tables T-1
- Glossary G-1
- Solutions to Self-Test Problems S-1
- Check Answers to Selected Problems C-1
- Index I-1

Preface

The financial management field continues to experience exciting change and growth. Financial practitioners are increasingly employing new financial management techniques, sophisticated computer resources, and mega databases to aid in their decision making. "Financial engineers" continue to create new derivative financial instruments and transactions, including options, financial futures contracts, options on futures contracts, foreign currency swaps, and interest rate swaps, to help managers deal with risk and enhance shareholder wealth. Many industries have been restructured because of the pressures of global competition. Leveraged buyout transactions from sophisticated investors have forced managers to make more careful use of their firms' resources. The growing private equity market has added another dimension to the focus on sound management of a firm's resources. Corporate reformers have focused attention on the structure of corporate governance relationships and the impact of alternative managerial compensation packages on firm performance. The Internet has transformed the way securities are bought and sold and the way companies access new capital. At the same time, financial researchers have made important advances in the areas of valuation, cost of capital, capital structure theory and practice, option valuation (including "real" options associated with capital investments), risk management, and dividend policy. Access to and content of the Internet have greatly expanded, making timely financial information increasingly available to customers, investors, and financial managers.

The financial crisis and recession that began in late 2007 and continued into 2010 had a major impact on the financial marketplace and the practice of financial management. This crisis in the financial markets identified structural weaknesses in many financial institutions, including commercial banks, quasi-governmental financial entities, regulatory practices, and various aspects of risk management. The lessons from this experience will have long-lasting impacts on financial markets and the strategies employed by financial managers and investors. This 14th Edition of *Contemporary Financial Management* addresses the cause of this crisis and its impacts on the practice of finance.

The future promises to be a more exciting time for finance professionals. Financial managers have refocused their attention on the core objective of maximizing shareholder wealth. Managers who act contrary to the interests of shareholders face the prospect of an unfriendly takeover, a corporate restructuring, pressure from domestic and foreign competitors, pressure from private equity investors, or pressures from shareholder groups and institutional investors. Firms increasingly must find operating savings necessary to remain competitive, as managers continue to struggle to find the optimal capital structure for their firm. The central importance of cash flows in the financial management of a firm has never been more apparent. The European economic and monetary unification and the near collapse of that union in the wake of the financial crisis of 2008–2010, and the growing importance of countries such as China and India, all require contemporary financial managers to possess greater knowledge of doing business in an international marketplace. Recent turmoil in the commodity, currency, and interest rate markets highlight the importance of financial risk management tools. In addition, the standards of ethical behavior adopted by managers of business enterprises become even more important.

Contemporary Financial Management, 14th Edition, incorporates these changes—the increased focus on shareholder wealth maximization and cash flow management, an emphasis on the international aspects of financial management, a concern for the ethical behavior of managers, the role of private equity investors, and the lessons learned in the financial crisis that impacted all aspects of risk management—into a text designed primarily for an introductory course in financial management. The book is also suitable for management development programs and as a reference aid to practicing finance professionals.

The 13th Edition of *CFM* was well received by our many adopters. In the 14th Edition we retain the core features of that edition. We appreciate the many users and adopters who continue to offer suggestions for content additions and enhancements. As in the past, we have incorporated many of these suggestions into this edition. This edition has been extensively updated throughout, including the addition of numerous contemporary examples and references.

We recognize that students enter this course with a wide variety of backgrounds in mathematics, economics, accounting, and statistics. The only presumption we make regarding prior preparation is that all student users have had one course in financial accounting.

Organization of the Text

This text provides an introduction to both analytical tools and descriptive materials that are useful in financial management. Because this is an introductory-level text, however, it does *not* attempt to make the reader an expert in every aspect of financial decision making. Instead, it is intended to do the following:

- Acquaint the reader with the types of decisions faced by financial managers
- Develop a framework for analyzing these decisions in a systematic manner
- Provide the reader with the background necessary to pursue more advanced readings and courses in financial management

Although the subject matter in this text is divided into distinct parts, in reality and practice, the various types of financial decisions are interrelated and should not be considered in isolation from one another.

Each chapter begins with a summary preview of the key concepts from the chapter. This is followed by a financial challenge faced by a real firm(s) and related to the material in the chapter. Next, Learning Objectives are identified for each chapter. At the end of each chapter is a point-by-point summary of the chapter and extensive sets of discussion questions and problems, including "Self-Test Problems" with detailed solutions that you can use to test your understanding of the text material. A glossary of key terms is provided at the end of the book. Some chapters also have more complex, integrative case problems. Where appropriate, special international financial management issues and entrepreneurial finance issues are discussed. The book also has "Ethical Issues" sections integrated throughout. "Check" answers to selected problems appear at the end of the book. You will find an overview of the CFM Excel templates that are available for solving many of the complex chapter problems and cases at the book's Web site (www.cengagebrain.com).

Parts of the Text

Part One, Introduction. Chapter 1 discusses the role and objectives of financial management, introduces the various forms of business organization, discusses the importance of ethical business practices, and reviews the structure of the financial management function. Chapter 2 reviews the major elements of the U.S. and international financial marketplace. It includes a discussion of the structure of the U.S. financial system and the role of stock exchanges. Also included are introductions to various types of derivative securities and international financial management. Chapter 2 also contains an extensive discussion of the causes and impacts of the financial crisis beginning in late 2007. Chapter 3 considers the financial statements and ratios that can be used to evaluate the financial performance of a firm. Chapter 4 presents various techniques for analyzing cash flows and forecasting future financial performance.

Part Two, Determinants of Valuation. Valuation is a central theme of the book. Chapter 5 develops the concept of the time value of money. This concept is used in the valuation of securities and the evaluation of investment projects expected to provide benefits over a number of years. The present value rule is also introduced. Chapter 6 applies the basic valuation model to fixed income securities, such as bonds and preferred stock. Chapter 7 deals with the valuation of common stock and the role of investment bankers. Chapter 8 provides a comprehensive introduction to the concept of risk in finance and the relationship between risk, required return, and the shareholder wealth maximization goal of the firm.

Part Three, The Capital Investment Decision. This portion of the text focuses on capital expenditures—that is, investments in long-term assets. Chapters 9 and 10 present the fundamentals of capital budgeting, namely, the process of investing in long-term assets. Chapter 9 deals with the measurement of the cash flows (benefits and costs) associated with long-term investment projects. Chapter 10 considers various decision-making criteria that can be used when choosing projects that will maximize the value of the firm. Chapter 11 extends the concepts developed in Chapter 10 by considering some of the decision-making techniques that attempt to deal with the problem of the risk associated with a specific project's cash flows.

Part Four, The Cost of Capital, Capital Structure, and Dividend Policy. Chapter 12 illustrates the principles of measuring a firm's cost of capital. The cost of funds to a firm is an important input in the capital budgeting process. Chapters 13 and 14 address the relationship of the cost of capital to the firm's capital structure. Chapter 15 discusses the factors that influence the choice of a dividend policy and the impact of various dividend policies on the value of a firm.

Part Five, Working Capital Management. Chapters 16 through 18 examine the management of a firm's current asset and liability accounts—that is, net working capital. Chapter 16 provides an overview of working capital management, with emphasis on the risk-return trade-offs involved in working capital decision making. Chapter 16 also covers the management of secured and unsecured short-term credit. Chapter 17 deals with the management of cash and marketable securities, and Chapter 18 focuses on the management of accounts receivable and inventories.

Part Six, Additional Topics in Contemporary Financial Management. Chapter 19 deals with lease financing and intermediate-term credit. Chapter 20 focuses on option-related funding alternatives, i.e., derivative securities, including convertible securities, and warrants. Chapter 21 examines various techniques for managing risk, including the use of derivative securities. Chapter 22 discusses the factors that affect exchange rates and foreign exchange risk. Chapter 23 examines corporate restructuring decisions, including mergers and acquisitions, the role of private equity investors, bankruptcy, and reorganization.

Distinctive Features

In this 14th Edition, we continue our commitment to provide a comprehensive, correct, and well-written introduction to the field of financial management. The current edition reflects the many refinements that have been made over the years in previous editions. In addition, we have created a text package that fully reflects contemporary financial management developments in the book's pedagogical aids, organizational design, and ancillary materials.

Pedagogical Features

CFM has been carefully designed to assist the student in learning and to stimulate student interest.

Distinctive pedagogical features include:

1. **Financial Challenges.** Each chapter begins with an illustration of a financial management problem faced by a firm or individual. These exciting lead-ins come from real-firm situations, including Medtronic, Lexus, Hertz, Apple Inc., Ford Motor, Twitter, Facebook, Boeing, Novo Nordisk, Source Gas Distribution, ExxonMobil, Sears, Procter & Gamble, Berkshire Hathaway, Verizon, and JPMorgan Chase. These examples focus on financial problems in the topic area of the chapter and highlight the importance of learning sound financial management principles. The "Financial Challenges" have been extensively revised and updated from the 13th Edition, including numerous totally new examples.
2. **Foundation Concepts.** These concepts are introduced early in the text. Their central importance in the study of finance is highlighted by specially designated icons indicating that these are "Foundation Concepts" and hence worthy of extra attention by the student. Important foundation concepts are identified throughout the book, including the determinants of the return on equity, the valuation of assets, the valuation of common stock, cash flow estimation principles, capital budgeting decision models, business risk, financial risk, and the weighted cost of capital.
3. **International Issues.** To emphasize and reinforce the global nature of financial decision making, we have included "International Issues" sections throughout the book to illustrate the global issues associated with making financial decisions. By covering international finance in two chapters—and throughout, with the "International Issues" features—we ensure that all students will be exposed to important international dimensions of financial management decisions, and we provide an opportunity for in-depth coverage of some of the more important international finance topics.
4. **Ethical Issues.** "Ethical Issues" sections are integrated throughout to present some of the ethical dilemmas facing financial managers. These sections raise sensitivities to ethical issues and usually conclude with questions and issues for further classroom discussion.
5. **Entrepreneurial Issues.** In recognition of the important and growing role of small and medium-sized firms in the American business environment, we have included "Entrepreneurial Issues" sections that appear in appropriate places throughout the book and emphasize unique finance-related problems and concerns of entrepreneurs.
6. **Extensive and Fully Integrated Examples of the Financial Policies and Problems That Face Real Firms.** Throughout the book, we have illustrated financial management concepts by using problems facing real firms. By minimizing the number of hypothetical firm situations and using data and situations facing actual firms that students will recognize and relate to, CFM has further enhanced the realism and excitement of the field of finance.
7. **Calculator Application Illustrations.** Many chapters have easy-to-follow, step-by-step calculator keystrokes to solve many of the time value of money examples developed in the text. These "Calculator Applications" sections are set up in a generic calculator format and can be used with virtually any financial calculator.

8. **Spreadsheet Strategies.** Many chapters have illustrative examples of how spreadsheet software (Microsoft Excel) can be used to solve finance problems, including time value of money problems, stock and bond valuation, and capital budgeting.
9. **Intuitive Use of Notation.** Notation in the text is simplified and intuitive to aid student learning. Inside the front cover, we have provided a handy summary of the key notation used throughout the book.
10. **Internet Applications.** This edition provides numerous references to interesting Internet applications. The applications provide students with handy references that can be used to explore the Internet for additional information and data dealing with chapter topics.
11. **Extensive Problem Sets.** Many of the end-of-chapter problems contain a surfeit of information, forcing students to identify the relevant material needed to solve the problem. The problem sets provide students and instructors with a greater breadth of problem coverage than in many other texts. In addition, the problems have been identified with a difficulty rating ranging from basic to intermediate to challenging. In several finance textbooks, problems are labeled to indicate the type of problem to be solved. We have specifically chosen not to include this information because we believe that recognition of the problem type is an important part of the learning process. However, we understand the differing needs and goals of instructors, and thus have provided these categories in Appendix A of the Instructors' Resource Manual, so that it can be easily shared with students if desired. Selected check answers to some of the end-of-chapter problems appear at the end of the text.
12. **Self-Test Problems.** Each chapter includes end-of-chapter "Self-Test Problems," with detailed solutions at the end of the text that students can use for further practice and enhanced understanding of the concepts developed in the chapter.
13. **Integrative Cases.** At the end of appropriate chapters, an expanded set of comprehensive "Integrative Cases" are provided. Many of these cases can be used in conjunction with the Excel models, available on the Moyer Student Companion Web site, to demonstrate the power of computers in performing sensitivity analysis.
14. **Excel™ Problems.** Throughout the text, problems that can be solved using Excel are highlighted with an Excel icon. To help solve these problems, more than 20 user-friendly, flexible, downloadable Excel models are available at www.cengagebrain.com and require no prior knowledge of Excel.

Organizational Design

Contemporary Financial Management is organized around the objective of maximizing the value of the firm for its shareholders. This objective is introduced early in the book, and each major financial decision is linked to the impact it has on the value of the firm. The distinctive content features are designed to complement this objective:

1. **Emphasis on the fundamental concepts of cash flow, net present value, risk-return relationships, and market efficiency.** There are four concepts that are central to a complete understanding of most financial management decisions:
   a. The importance of cash flows as the relevant source of value to a firm
   b. The significance of the net present value rule for valuing cash flows
   c. The relationship between risk and return in the valuation process
   d. The efficiency of the capital markets
2. **Unique treatment of problems of international financial management.** In a business world that is increasingly global, it is important that finance students be aware of the most important dimensions of international finance. Some texts provide a single chapter dealing with a potpourri of international issues, but due to time

constraints, many instructors have difficulty in covering this material. Other texts use a series of short international topic sections scattered throughout the book, but this approach does not provide the in-depth coverage needed for some international finance topics, such as hedging exchange rate risk. In the 14th Edition of *CFM*, important international finance relationships, including the operation of foreign currency markets, exchange rate determination, and the role of multinational firms in the global economy, are covered in Chapter 2 ("The Domestic and International Financial Marketplace"). More advanced international topics, such as international parity relationships and the management of foreign exchange risk, are introduced in Chapter 22, "International Financial Management." In addition, international viewpoints are covered in other chapters where appropriate.

3. **Comprehensive and integrated coverage of ethical issues facing financial managers.** Financial managers seeking to maximize shareholder wealth must also confront difficult ethical dilemmas. "Ethical Issues" sections are integrated throughout and present some of the ethical dilemmas facing financial managers. This treatment of the ethical dimensions of financial management is consistent with the AACSB's recommendations for coverage of these issues.
4. **Early coverage of institutional characteristics and valuation models for financial instruments.** We have provided separate chapters (Chapters 6 and 7) dealing with the valuation of fixed income securities and common stock. These chapters also define all of the important characteristics of each of these security types and cover the institutional aspects of the markets for these securities, including the reading and understanding of security transaction information from sources such as *The Wall Street Journal*. This structure provides students with both an institutional understanding of bonds, preferred stock, and common stock and an understanding of the valuation process for securities in the financial marketplace.
5. **Early coverage of time value of money concepts.** Time value of money concepts are covered in depth in Chapter 5. This treatment provides students with the exposure needed to fully understand the valuation process that is central to the goal of shareholder wealth maximization. In addition, this coverage of the time value of money involves students in useful practical applications early on in the course, setting an early tone of relevance for the course.
6. **The importance of cash flow analysis is introduced early and reemphasized throughout the text.** Chapter 1 introduces students to the importance of the cash flow concept. This concept is then applied extensively in the context of financial planning and forecasting (Chapter 4), valuation (Chapters 6 and 7), capital budgeting (Chapters 9, 10, and 11), dividend policy (Chapter 15), working capital management (Chapter 16), and corporate restructuring (Chapter 23).
7. **Attention to unique problems of financial management in entrepreneurial finance.** In recognition of the important and growing role of small and medium-sized firms in the American business environment, we have included "Entrepreneurial Issues" sections, which appear in appropriate places throughout the book and emphasize unique finance-related problems and concerns of entrepreneurs (small businesses).
8. **Extensive development of the cash flow estimation process in capital budgeting.** Perhaps the most important step in the capital budgeting process is the estimation of cash flows for potential projects. *CFM* devotes an entire chapter (Chapter 9) to this topic, with a chapter appendix detailing alternative depreciation methods and their tax consequences.
9. **A detailed discussion of real options that are embedded in many capital investment projects.** Finance scholars and practitioners have increasingly focused

attention on "embedded options" in capital investment projects, such as the option to abandon, the option to expand, and the option to defer investments. These options add value to an investment project above that normally identified in a net present value calculation. Chapter 10 includes an extensive intuitive discussion of real options in capital budgeting.

10. **Coverage of modern financial analysis and performance appraisal concepts.** The increased attention given to the objective of shareholder wealth maximization has brought about the development of new performance appraisal models that can be used to judge a firm's performance and motivate managers to create value. The "Market Value Added" and "Economic Value Added" concepts, developed by Stern-Stewart, are covered in Chapter 3 ("Evaluation of Financial Performance").
11. **Broad, integrated treatment of working capital management.** For many small and medium-sized companies, the management of working capital can present more challenges than any other area of financial management. A thorough and up-to-date three-chapter section on working capital management is included.
12. **Introduction to new financial instruments and strategies.** Financial futures contracts, options, interest rate swaps, corporate restructuring, and leveraged buyouts (LBOs), to name but a few, have become increasingly important to contemporary financial managers. These topics are introduced to the student in an applied context that illustrates their value to financial managers.
13. **Frequent coverage of the impact of agency relationships in financial management.** The impact of principal-agent relationships on decisions in the areas of goal setting, valuation, capital structure, dividend policy, and corporate restructuring are presented throughout the book.
14. **Extensive coverage of the impact of the financial crisis that began in late 2007.** The 14th Edition of *CFM* provides extensive coverage of the impact of the financial crisis (that began in 2007–2008 and continued into 2010) on the practice of financial management. In addition to an in-depth and intuitive presentation in Chapter 2, it is also referenced many times in the following chapters.

Materials for the Student

Go to www.cengagebrain.com to access the Web site that supports *Contemporary Financial Management,* Fourteenth Edition. The site provides a link to Thomson ONE—Business School Edition, Internet application links, links to relevant finance sites, Key Terms, and the following features:

- Excel™ Models. These models are designed to solve a wide variety of financial management problems. Problems in the text that can be solved using these models are indicated with an Excel logo next to the problem. The models require absolutely no prior knowledge of Excel. All of the models are designed so they can be used to solve actual business financial analysis problems, not just simplified textbook examples.
- e-Lectures. Difficult concepts from each chapter are explained and illustrated via streaming video and animated tutorials. These video clips and tutorials can be extremely helpful review and clarification tools if a student has trouble understanding an in-class lecture or is a visual learner who has difficulty grasping concepts as presented in the text.
- Ask-the-Author Video. In the ask-the-author video segments, the text author, R. Charles Moyer, discusses the most difficult concept for the students to grasp from the chapter. Because the author is the best person to explain his book, these video clips are invaluable to students who need just a little extra help without extra class time.
- Thomson ONE—Business School Edition (tobsefin.swlearning.com). This tool gives students the opportunity to use a business school version of the Internet-based database that analysts and brokers around the world use every day to conduct research and analysis. End-of-chapter material in several chapters includes problems specifically created for use with Thomson ONE—BSE. Thomson

ONE—BSE includes 10-year financial statements downloadable to Excel; one-click Peer Set analysis; indices that can be manipulated or compared, both international as well as domestic companies, and more. Thomson ONE— BSE is included FREE with each new text.

Materials for the Instructor

A complete set of ancillary materials is available to instructors to supplement the text, many at the text Web site at www.cengagebrain.com. These include the Instructor's Resource Manual, the Test Bank, and PowerPoint slides.

- An Instructor's Resource Manual (IRM), revised by the text authors, is available to instructors. It contains detailed solutions to the end-of-chapter questions and problems, and documentation for the Excel templates included in the back of the manual. The solutions to text questions and problems have been thoroughly checked to assure their accuracy. In addition, topical categories of the end-of-chapter questions and problems are listed in an appendix. The IRM is available to instructors in electronic format only, on the text Web site.
- An extensive Test Bank, revised by Mary Fox Luquette of the University of Louisiana, offers over 1,800 multiple-choice questions and problems. This unique test bank is designed with the instructor in mind, and includes AACSB designations for each question and problem. Approximately 60 percent of the questions are "fact" questions, taken directly from the discussion in the text. Approximately 20 percent of the questions are "elementary problem" questions that closely parallel problem examples developed in the chapter and easier problems at the end of the chapter. Approximately 20 percent of the questions are "challenging problems" that require the student to apply concepts developed in the chapter to new problem situations.
- Cengage Learning Testing Powered by Cognero is a flexible, online system that allows you to:
  - author, edit, and manage test bank content from multiple Cengage Learning solutions
  - create multiple test versions in an instant
  - deliver tests from your LMS, your classroom, or wherever you want
- A set of PowerPoint Presentation Slides, revised by William T. Chittenden of Texas State University, provide the text's graphs and tables along with lecture notes and is available at the text Web site. These can be printed for use as transparency masters or acetates.
- Aplia™ for Finance! The best-selling homework solution in education today, Aplia is trusted by more than 500,000 students at more than 650 institutions worldwide. Aplia for Finance offers an online homework system that improves learning by increasing student effort and engagement—without requiring more work from the instructor. Aplia's original, autograded finance assignments ensure that students grasp the skills and concepts presented in the text through interactive problem sets, news analyses, tutorials in math, accounting, statistics, economics, and financial calculators. Visit www.aplia.com for a full Aplia for Finance demonstration online.

Acknowledgments

The authors wish to acknowledge the helpful comments provided by many of our adopters and reviewers, from our first edition through this 14th Edition. We are also grateful for the invaluable comments from our survey respondents, who are included here:

Jean Abbott
Jean Abbott
Hez A. Aubey
Peter W. Bacon
Dean Baim
Richard Bauer
Carl Beidleman
Thomas Berry
Gordon R. Bonner
Jerry D. Boswell
Denis Boudreux
Don Bowlin
Jay T. Brandi
Peter Brucato
William Brunsen
Anthony K. Byrd
W. Thomas Carls
Kenneth Carow
P. R. Chandy
Robert Chatfield
Tylor Claggett
Brandon Cline
Maclyn L. Clouse
C. Mitchell Conover
David B. Cox
John Crockett
Orkunt Dalgic
Lynn E. Dellenbarger, Jr.
Shreesh Deshpande
J. David Diltz
Vernon Dixon
Shannon Donovan
Rudolph D'Souza
William Dukes
John Dunkelberg
Fred Ebeid
John W. Ellis
Holger Engberg
Marilyn Ettinger
Keith W. Fairchild
Edward Farragher
Donald Fehrs
Mike Ferri
Jane Finley
Shifra Fraifeld
John Gawryk
Richard Gendreau
James Gentry
Michael Gombola
James Greenleaf
Kamal Haddad
Thomas Hamilton
Thomas Hardy
Charles Harper
Rick Harris
Mahboubul Hassan
Delbert Hastings
Eric Haye
Patrick Hays
Shantaram P. Hedge
Robert Hehre
George Hettenhouse
L. Dean Hiebert
K. P. Hill
Shalom Hochman
Barbara Howard
Thomas Howe
Jim Hsieh
Pearson Hunt
Aditya Mohan Jadhav
Nemiraja Jadiyappa
Ravi Kumar Jain
Keith B. Johnson
R. Larry Johnson
Charles P. Jones
Raymond G. Jones, Jr.
Peppy M. Kenny
Kee Kim
Thomas Klaasen
Daniel P. Klein
Timothy Koch
Robert S. Kravchuk
Thomas M. Kreuger
Harry R. Kuniansky
Robert Lamy
Keith Laycock
Thomas D. Legg
Joseph J. Levitzky
Thomas J. Liesz
David Lindsley
Charles Linke
Danny S. Litt
Mike Lockett
Robert Lutz
Inayat U. Mangla
Wayne M. Marr
Rand Martin
Robert McElreath
Z. Lew Melnyk
Richard Meyer
Stuart Michelson
Edward M. Miller
Billy C. Moore
Scott Moore
Allen D. Morton
Tammie Simmons Mosley
Robert Nash
Eddie O'Neal
Robert A. Olsen
Coleen G. Pantalone
Ajay Patel
Walter W. Perlick
Susan M. Phillips
Mario Picconi
Pegaret Pichler
Anthony Plath
Alwyn du Plessis
Barbara Poole
Ralph Pope
Dwight Porter

Robert Porter
Rose M. Prasad
Dianna Preece
Kelly Price
Dennis Proffitt
Russ Ray
Charles Rayhorn
Bruce Resnick
Jesse Reyes
William B. Riley
Charles T. Rini
John T. Rose
Jack H. Rubens
Carolyn J. Ryan
Gary C. Sanger
Richard Sapp
Robert G. Schwebach
Robert Schweitzer
Bernard A. Shinkel
Mark Shrader
Phillip Sisneros
Donald Simonson
Frank Smith
John Speltz
Richard F. Sperring
Uma Sridharan
Vic Stanton
Gordon M. Stringer
Paul Swanson
Rolf K. Tedefalk
Richard J. Teweles
Chan Kok Thim
Niranjan Tripathy
K. C. Tseng
Anthony M. Tuberose
George Ulseth
David Upton
Howard E. Van Auken
Sue Visscher
Charles Wade
Richard A. Wall
Alan Weatherford
Samuel C. Weaver
Marsha Weber
Herbert Weinraub
Jill Wetmore
J. Daniel Williams
E. Walter Wilson
Lawrence Wolken
Dr. Kenneth Yung
Richard Zock
J. Kenton Zumwalt

and the following business professionals:

Gordon B. Bonfield
Richard H. Brock
Roy V. Campbell
Gary Costley
Norman Dmuchowski
David Dupree
Stephen H. Grace
Samuel C. Hadaway
R. Lee Haney
Raymond A. Hay
Lawrence Ingrassia
Ira G. Kawaller
Carl J. Lange
Martin H. Lange
Chris Layton
Lewis Lehr
C. Londa
Paul MacAvoy
Frank Mastrapasqua
John H. Maxheim
John McKinnon
Thomas R. Mongan
Robert B. Morris III
T. Boone Pickens
Jack S. Rader
M. W. Ramsey
William J. Regan
Albert J. Robison
Julie Salamon
Kenneth Schwartz
Terry J. Winders
Greg Young

We are also indebted to Lehigh University, Texas Tech University, the University of Houston, the University of New Mexico, Wayne State University, Wake Forest University, Oklahoma State University and the University of Louisville for the considerable support they provided in this or earlier editions.

We owe thanks, as well, to our deans and fellow faculty members at our universities for the encouragement and assistance they provided on a continuing basis during the preparation of the manuscript. Special thanks are due to Mohsen Mollagholamali for his diligent help in updating real data and examples used in Chapters 13–15, 21, and 23; to Subbu Iyer for authoring the Ethical Issues feature in Chapter 21; and to Anil P. Rao for authoring the Financial Challenge lead-in for Chapters 3 and 23.

Finally, we wish to express our thanks to the Finance team members at Cengage Learning. We are particularly appreciative of the support provided by our editors and marketing staff: Joe Sabatino as senior product manager, Brad Sullender as content developer, Nate Anderson as marketing manager, Sharon Smith as production manager, and Mark Hopkinson as media developer.

R. Charles Moyer
James R. McGuigan
Ramesh P. Rao

PART 1

Introduction

CHAPTER 1
The Role and Objective of Financial Management

CHAPTER 2
The Domestic and International Financial Marketplace

CHAPTER 3
Evaluation of Financial Performance

CHAPTER 4
Financial Planning and Forecasting

Part One provides an overview of the field of financial management. Chapter 1 considers the goal of the firm, discusses the role of financial management in the firm, and describes the alternative forms of business organizations. The determinants of value are also introduced. The chapter also considers the organization of the financial management function, the relationship between finance and other business disciplines, and various careers that are available in finance. Chapter 2 presents key elements of the U.S. financial marketplace, including the structure of the U.S. financial system and the role of stock exchanges. Also included is an introduction to the various types of financial derivative securities. The causes and consequences of the financial market and economic crisis of 2008–2009 are discussed. The last part of the chapter contains an introduction to international financial management, including multinational enterprises and the foreign currency markets and exchange rates. Chapter 3 deals with the use of financial ratios to evaluate a firm's financial performance. Chapter 4 examines various financial planning and forecasting techniques, including percentage of sales forecasting methods and cash budgets.

CHAPTER 1

The Role and Objective of Financial Management

KEY CHAPTER CONCEPTS

1. *Shareholder wealth* is defined as the present value of the expected future returns to the owners of the firm. It is measured by the market value of the shareholders' common stock holdings.
2. The primary normative goal of the firm is to make the most efficient use of the firm's resources and thereby to maximize shareholder wealth.
3. Achievement of the shareholder wealth maximization goal is constrained by social responsibility concerns and problems arising out of agency relationships.
4. The market value of a firm's stock is determined by the magnitude, timing, and risk of the cash flows the firm is expected to generate. Managers can take a variety of actions to influence the magnitude, timing, and risk of the firm's cash flows. These actions are often classified as investment, financing, and dividend decisions.
5. Ethical standards of performance frame the bounds of decision making by leaders, managers, and other employees.
6. The most important forms of business organization are the:
   a. Sole proprietorship
   b. Partnership—both limited and general
   c. Corporation
7. Corporations have the advantages of limited liability for owners, potentially perpetual life, and the ability to raise large amounts of capital. Even though they account for less than 18 percent of U.S. firms, corporations account for 81 percent of U.S. business revenues.
8. The finance function is usually headed by a chief financial officer.
   a. Financial management responsibilities are often divided between the controller and treasurer.
   b. The controller normally has responsibility for all activities related to accounting.
   c. The treasurer is normally concerned with the acquisition, custody, and expenditure of funds.

FINANCIAL CHALLENGE

Issues Confronting Financial Managers

- In September 2015, the U.S. Environmental Protection Agency disclosed that it had discovered that Volkswagen (VW) was using software designed to deceive regulators about the true amount of emissions being expelled by its diesel-powered cars sold in the United States. Subsequently it was learned that the scope of this deception also included cars sold in Europe and other parts of the world. Between September and late November 2015, the market value of VW declined by a whopping 37 percent. VW set aside $10 billion to pay for the consequences of this deception. The CEO of VW and other top managers of the company resigned. Now VW's management team is faced with the challenge of determining how this fraud was allowed to occur for so many years, how to reassure customers that the company can be trusted in the future, how to reassure regulators that this type of fraud will never happen again, and how to pay for the fines and costs associated with correcting the emissions problems. In late November 2015, the management team began a series of meetings to determine how they can cut their budgets going forward to pay the multibillion-dollar costs. Undoubtedly the company will have to cancel or limit many desirable capital projects in the coming years, further reducing the long-term value of the firm.[1] Ethical breaches such as this one can have short-term positive impacts on revenues and profits, but disastrous long-term impacts on firm value. The importance of ethical behavior by a company's managers is a key element in achieving the goal of shareholder wealth maximization.
- The global financial collapse of 2008–2009 had wide-ranging impacts in the United States and internationally. Iceland, a beautiful island nation of just over 300,000 inhabitants, had long been known for its rich fishing industry. Icelanders pride themselves for their reputation as confident, risk-taking adventurists. Because of its extensive geothermal and hydroelectric power sources, the country has been able to attract a growing aluminum industry. In the 1990s a new generation of Icelandic bankers set the goal of transforming Iceland into a global financial powerhouse. Commercial banks expanded their business to include hedge fund investments, investment banking, and private equity. Soon the financial sector was worth more than the country's entire gross domestic product. This growth could be supported only by debt provided by the international wholesale credit markets. As its economy grew, retail investors were attracted to the high rates of return offered by Icelandic banks and hedge funds, and by the appreciation in the country's currency, the krona. In October 2008, just after the collapse of Lehman Brothers, a major U.S. investment bank, the Icelandic financial system collapsed. Each of the major banks went into receivership, local companies declared bankruptcy, and the country's currency dropped in value from 63 krona to the dollar to 130 krona to the dollar.[2] The story of Iceland is another tale of uncontrolled risk, overoptimistic return expectations, and hubris. In this course you will learn about important elements of the international financial system and ways to manage financial risk.

© Darren Brode/Shutterstock.com

- In July 2015 Apple announced that the cash on its balance sheet totaled $203 billion, making it the first company in history to have more than $200 billion in cash. In July 2014 Apple's cash balances stood at $164.5 billion. Strong operating cash flows over the previous year account for

---

[1]For more detail on the VW fraud case and its implications, see, for example, W. Boston and M. Spector, "VW Draws Regulators' Ire," *The Wall Street Journal*, November 19, 2015, pp. B1–B2.

[2]For a detailed account of the Iceland dilemma, see Asgeir Jonsson, *Why Iceland?* (New York: McGraw-Hill, 2009).

FINANCIAL CHALLENGE — CONTINUED

the rapid growth in its cash position. This growing cash balance was achieved even though the company paid out $3.1 billion in dividends and repurchased $4 billion in stock during the previous quarter. What do managers plan to do with this huge cash hoard? Nearly 90 percent of the cash is held offshore in its overseas subsidiaries. If the cash were brought back to the United States, Apple would face a monstrous tax bill. That is why Apple also borrowed $10 billion during the last quarter to help meet dividend and share buyback commitments, and to fund operations. Like many other large firms, Apple is waiting for an improvement in the tax treatment of offshore cash balances. In the meantime, its board and management need to plan for capital investments, new product development costs, and make decisions regarding how to compensate shareholders through dividends and share buybacks.

The situations described here provide a small taste of the important questions regularly facing financial managers. The financial concepts and tools needed to deal with these types of problems are the subject matter of this book.

CHAPTER OBJECTIVES

Upon completion of this chapter, you should have a clear understanding of the following topics:

1. The primary goal of the firm
2. The determinants of the value of a firm
3. The meaning and implications of agency problems in a corporation
4. The importance of ethics in running a business organization
5. The major types of business organizations and their distinguishing features
6. The role and function of the financial manager
7. The relationship between finance and other business disciplines

1-1 Introduction

HTTP:
Yahoo! maintains a finance portal site for access to an extensive range of data, tools, and financial analysis and commentary.
finance.yahoo.com

Financial managers have the primary responsibility for acquiring funds (cash) needed by a firm and for directing those funds into projects that will maximize the value of the firm. The field of financial management[3] is an exciting and a challenging one, with a wide range of rewarding career opportunities in the fields of corporate financial management, investment banking, investment analysis and management, portfolio management, commercial banking, real estate, insurance, risk management, wealth management, and the public sector.

Articles appear regularly in the major business periodicals, such as *The Wall Street Journal*, *Bloomberg BusinessWeek*, *Fortune*, *Forbes*, and *The Financial Times*, describing

[3]The terms *financial management*, *managerial finance*, *corporate finance*, and *business finance* are virtually synonymous and are used interchangeably. Most financial managers, however, seem to prefer either *financial management* or *managerial finance*.

financial managers' involvement in important and challenging tasks. Consider, for example, the options facing Ford Motor's management in 2009 when it was deciding whether to accept U.S. government loan assistance. Imagine the challenges faced by U.S.–based capital goods manufacturers like Boeing, Caterpillar, Cummins, and Lockheed as they face competition in 2015 and beyond from European firms. Between 2011 and late 2015, the value of the euro had declined from $1.48/euro to $1.06/euro. A decrease in the value of the euro (which is the same as an increase in the value of the dollar) makes imports from European companies much cheaper for U.S. companies and consumers, while exports from the U.S. become much more expensive for European firms and consumers.

Imagine being a portfolio manager who invested $10 million, on behalf of her clients, in Apple, Inc. in July 2014. At that time Apple's stock was trading at $95 per share. By November 2015 the stock had risen to over $117 per share, an increase of approximately 23 percent. Was this the time to take profits for her client, or should she continue to hold the Apple stock? In November some analysts, such as those from Goldman Sachs, predicted an additional 43 percent increase in value over the coming year, while others believed that the stock was fully valued, or even overvalued, at the current price.

Any business has important financial concerns, and its success or failure depends in a large part on the quality of its financial decisions. Every key decision made by a firm's managers has important financial implications. Managers daily face questions like the following:

- Will a particular investment be successful?
- Where will the funds come from to finance the investment?
- Does the firm have adequate cash or access to cash—through bank borrowing agreements, for example—to meet its daily operating needs?
- Which customers should be offered credit, and how much should they be offered?
- How much inventory should be held?
- Is a merger or an acquisition advisable?
- How should cash flows be used or distributed? That is, what is the optimal dividend policy? Or should shares be repurchased?
- In trying to arrive at the best financial management decisions, how should risk and return be balanced?
- Are there "intangible" benefits (for example, real option aspects) from an investment project that the firm is considering that will affect the accept/reject decision emerging from traditional quantitative analysis procedures?

This text presents an introduction to the theory, institutional background, and analytical tools essential for proper decision making in these and related areas. As a prospective manager, you will be introduced to the financial management process of typical firms. By learning how the financial management process works, you will establish a key building block for a successful management career.

1-2 The Goal of Shareholder Wealth Maximization

Foundation Concept

Shareholder wealth

Effective financial decision making requires an understanding of the goal(s) of the firm. What objective(s) *should* guide business decision making—that is, what should management try to achieve for the owners of the firm? The most widely accepted objective of the firm is to make the most efficient use of the firm's resources and thereby maximize the value of the firm for its owners; that is, to *maximize shareholder wealth*. **Shareholder wealth** is represented by the market price of a firm's common stock.

Warren Buffett, CEO of Berkshire Hathaway, an outspoken advocate of the shareholder wealth maximization objective, and a premier "value investor," says it this way:

> Our long-term economic goal … is to maximize the average annual rate of gain in intrinsic business value on a per-share basis. We do not measure the economic significance or performance of Berkshire by its size; we measure by per-share progress.[4]

Present value
discount rate
risk

The shareholder wealth maximization goal states that management should seek to maximize the present value of the expected future returns to the owners (that is, shareholders) of the firm. These returns can take the form of periodic dividend payments or proceeds from the sale of the common stock. **Present value** is defined as the value today of some future payment or stream of payments, evaluated at an appropriate discount rate. The **discount rate** takes into account the returns that are available from alternative investment opportunities during a specific (future) time period. As we shall see in Chapter 5, the longer it takes to receive a benefit, such as a cash dividend or price appreciation of the firm's stock, the lower the value investors place on that benefit. In addition, the greater the **risk** associated with receiving a future benefit, the lower the value investors place on that benefit. Stock prices, the measure of shareholder wealth, reflect the *magnitude*, *timing*, and *risk* associated with future benefits expected to be received by stockholders.

Market value

Shareholder wealth is measured by the market value of the shareholders' common stock holdings. **Market value** is defined as the price at which the stock trades in the marketplace, such as on the New York Stock Exchange. Thus, total shareholder wealth equals the number of shares outstanding times the market price per share.

$$\text{Shareholder wealth} = \text{Number of shares outstanding} \times \text{Market price per share} \tag{1.1}$$

The objective of shareholder wealth maximization has a number of distinct advantages. First, this objective explicitly considers the timing and the risk of the benefits expected to be received from stock ownership. Similarly, managers must consider the elements of timing and risk as they make important financial decisions, such as capital expenditures. In this way, managers can make decisions that will contribute to increasing shareholder wealth.

Second, it is conceptually possible to determine whether a particular financial decision is consistent with this objective. Stock prices provide a direct measure of the success of decisions made by a firm's managers.

Third, shareholder wealth maximization is an impersonal objective. Stockholders who object to a firm's policies are free to sell their shares *under more favorable terms* (that is, at a higher price) *than are available under any other strategy* and invest their funds elsewhere. If an investor has a consumption pattern or risk preference that is not accommodated by the investment, financing, and dividend decisions of that firm, the investor will be able to sell his or her shares in that firm at the best price, and purchase shares in companies that more closely meet the investor's needs.

For these reasons, the shareholder wealth maximization is the key performance metric in financial management. However, concerns for the social responsibilities of business, the existence of other objectives pursued by some managers, and problems that arise from agency relationships may cause some departures from pure wealth-maximizing behavior by owners and managers. (These problems are discussed later.) Nevertheless, the shareholder wealth maximization goal provides the standard against which actual decisions can be judged and, as such, is the objective assumed in financial management analysis.

1-2a Stakeholder Concerns

stakeholders

Most firms recognize the importance of the interests of all their constituent groups, or **stakeholders**—customers, employees, suppliers, and the communities in which they

[4]Berkshire Hathaway, Inc., *Annual Report* (2001). More recently (*Annual Report*, 2010), Buffett adds that their goal is to increase the intrinsic value at a rate of growth in excess of the *Standard & Poor's 500* Stock Price Index (S&P 500), thus providing an objective standard against which success can be measured. (See Chapter 2 for more information on the S&P stock index.)

operate—and not just the interests of stockholders. For example, firms normally recognize responsibilities to various constituencies, such as:

- To sustain an optimum return on investment for *stockholders*
- To be perceived by *customers* as a provider of quality service
- To demonstrate that *employees* are the firm's most valuable resource
- To provide corporate leadership in the *communities* it serves
- To operate compatibly with environmental standards and initiate programs that are sensitive to environmental issues [*community*]

A diversity of opinion exists regarding what stakeholder concerns should be addressed by private companies. The concept is somewhat subjective and is neither perceived nor applied uniformly by all firms. In most instances, a manager who takes an appropriate long-term perspective in decision making, rather than focusing only on short-term accounting profits, will recognize responsibility to all of a firm's constituencies and will help lead the company to the maximization of value for shareholders, while balancing concerns of other stakeholders. In essence, concern for the interests of stakeholders can be viewed as the *means* to the *end* of maximizing long-term shareholder wealth.

1-2b Divergent Objectives

The goal of shareholder wealth maximization specifies how financial decisions should be made. In practice, however, not all management decisions are consistent with this objective. For example, Joel Stern and Bennett Stewart have developed an index of managerial performance that measures the success of managers in achieving a goal of shareholder wealth maximization.[5] Their performance measure, called *Economic Value Added*, is the difference between a firm's annual after-tax operating profit and its total annual cost of capital. Many highly regarded major corporations, including Coca-Cola, AT&T, Quaker Oats, Briggs & Stratton, and CSX, have used the concept. The poor performances of other firms may be due, in part, to a lack of attention to stockholder interests and the pursuit of goals more in the interests of managers.

In other words, there often may be a divergence between the shareholder wealth maximization goal and the *actual* goals pursued by management. The primary reason for this divergence has been attributed to *separation of ownership and control* (management) in corporations.

Separation of ownership and control has permitted managers to pursue goals more consistent with their own self-interests as long as they satisfy shareholders sufficiently to maintain control of the corporation. Instead of seeking to maximize some objective (such as shareholder wealth), managers may "satisfice," or seek acceptable levels of performance, while maximizing their own welfare.

Maximization of their own personal welfare (or utility) may lead managers to be concerned with long-run survival (job security). The concern for long-run survival may lead managers to minimize (or limit) the amount of risk incurred by the firm, since unfavorable outcomes can lead to their dismissal or possible bankruptcy for the firm. Likewise, the desire for job security is cited as one reason why management often opposes takeover offers (mergers) by other companies. Giving senior managers "golden parachute" contracts to compensate them if they lose their positions as the result of a merger is one approach designed to ensure that they will act in the interests of shareholders in merger decisions, rather than in their own interests.

Other firms expect top managers and directors to have a significant ownership stake in the firm. When they do, it is more likely that they will be thinking about ways to increase that stock price every day they go to work.

[5] J. M. Stern, J. S. Shiely, and I. Ross, *The EVA Challenge* (New York: Wiley, 2001). This performance measure is discussed more fully in Chapter 3.

1-2c Agency Problems

Agency relationships
principals
agent

The existence of divergent objectives between owners and managers is one example of a class of problems arising from agency relationships. **Agency relationships** occur when one or more individuals (the **principals**) hire another individual (the **agent**) to perform a service on behalf of the principals.[6] In an agency relationship, principals often delegate decision-making authority to the agent. In the context of finance, two of the most important agency relationships are the relationship between stockholders and creditors and the relationship between stockholders (owners) and managers.

Stockholders and Creditors

A potential agency conflict arises from the relationship between a company's owners and its creditors. Creditors have a fixed financial claim on the company's resources in the form of long-term debt, bank loans, commercial paper, leases, accounts payable, wages payable, taxes payable, and so on. Because the returns offered to creditors are fixed whereas the returns to stockholders are variable, conflicts may arise between creditors and owners. For example, owners may attempt to increase the riskiness of the company's investments in hopes of receiving greater returns. When this occurs, bondholders suffer because they do not have an opportunity to share in these higher returns. For example, when RJR Nabisco (RJR) was acquired by KKR, the debt of RJR increased from 38 percent of total capital to nearly 90 percent of total capital. This unexpected increase in financial risk caused the value of RJR's bonds to decline by nearly 20 percent. In response to this loss of value, Metropolitan Life Insurance Company and other large bondholders sued RJR for violating the bondholders' rights and protections under the bond covenants. RJR and Metropolitan ultimately settled the suit to the benefit of Metropolitan. Similar concerns arose in several large financial firms, including Wachovia, AIG, Merrill Lynch, and Lehman Brothers, during the economic crisis of 2008–2009. The issue of bondholder rights remains controversial, however.

In order to protect their interests, creditors often insist on certain protective covenants in a company's bond indentures.[7] These covenants take many forms, such as limitations on dividend payments, limitations on the type of investments (and divestitures) the company can undertake, poison puts,[8] and limitations on the issuance of new debt. The constraints on the owner-managers may reduce the potential market value of the firm. In addition to these constraints, bondholders may also demand a higher fixed return to compensate for risks not adequately covered by bond indenture restrictions.

Stockholders and Managers

Inefficiencies that arise because of agency relationships have been called *agency problems*. These problems occur because each party to a transaction is assumed to act in a manner consistent with maximizing his or her own utility (welfare). The example cited earlier—the concern by management for long-run survival (job security) rather than shareholder wealth maximization—is an agency problem. Another example is the consumption of on-the-job perquisites (such as the use of company airplanes, limousines, and luxurious offices) by managers who have no (or only a partial) ownership interest in the firm. Shirking by managers is also an agency-related problem.

In May 2012, JPMorgan Chase called a surprise news conference call to announce a loss of at least $2 billion because of trading in risky credit default swaps that were made in the office of the chief investment officer, Ina Drew. The trades that led to the massive losses

---

[6] See Amir Barnea, R. Haugen, and L. Senbet, *Agency Problems and Financial Contracting* (Englewood Cliffs, NJ: Prentice Hall, 1985) for an overview of the agency problem issue. See also Jean-Jacques Laffont and David Martimort, *The Theory of Incentives: The Principal-Agent Model* (Princeton, NJ: Princeton University Press, 2001).

[7] Protective covenants are discussed in greater detail in Chapters 6 and 19.

[8] A "poison put" is an option contained in a bond indenture that permits the bondholder to sell the bond back to the issuing company at face value under certain circumstances, such as a leveraged buyout that raises the risk for existing debt holders.

were managed by a trader in the firm's London offices. These trades occurred because of a conflict of incentives between the traders and the risk-management profile desired by JPMorgan's CEO, Jamie Dimon. Seven employees lost their jobs, the market value of JPMorgan's stock declined by nearly $39 billion in the two months following the announcement of the trading losses, and the reputations of JPMorgan and its CEO were severely damaged.

agency costs

These agency problems give rise to a number of **agency costs**, which are incurred by shareholders to minimize agency problems. Examples of agency costs include:

1. Expenditures to structure the organization in such a way as to minimize the incentives for management to take actions contrary to shareholder interests
2. Expenditures to monitor management's actions, such as paying for audits of managerial performance and internal audits of the firm's expenditures
3. Bonding expenditures to protect the owners from managerial dishonesty
4. The opportunity cost of lost profits arising from complex organizational structures that prevent management from making timely responses to opportunities

A number of different mechanisms are available to reduce the agency conflicts between shareholders and managers. These include corporate governance, managerial compensation, and the threat of takeovers.

Corporate Governance As a result of accounting scandals and the increased perception of excessive executive compensation (relative to company performance), the Securities and Exchange Commission (SEC), the securities exchanges (NYSE, AMEX, NASDAQ), The Conference Board (a business research organization), and other experts have made various proposals concerning how best to deal with the issues of corporate governance.

First, the board of directors of a corporation should have a majority of independent directors. Independent directors are individuals who are not current or former employees of the company and who have no significant business ties to the company. Additionally, the committee responsible for nominating members of the board of directors must be composed only of independent directors. Furthermore, the post of chairman of the board of directors should be split from the CEO position; or, alternatively, an independent lead, or presiding, director should chair board meetings. Also, all members of the audit and compensation committees must be independent directors. Finally, the company must disclose whether it has adopted a code of ethics for the CEO and senior financial officers and, if not, explain why it has not done so.

Many of these proposals have been implemented by public companies. In addition to these proposed changes in how corporations govern themselves, the Sarbanes-Oxley Act, passed by Congress in 2002, mandated various changes in the processes used by corporations to report their financial results.

Managerial Compensation Properly designed compensation contracts can help to align shareholder-management conflicts. For example, providing part of the compensation in the form of stock or options to purchase stock can reduce agency conflicts. Stock options granted to managers entitle them to buy shares of the company at a particular price (**exercise price**). Typically, the options are set at an exercise price greater than the price of the stock at the time options are granted and can be exercised only after a certain period of time has elapsed. These conditions are imposed so that managers won't be tempted to cash in their options immediately and leave the company. More important to stock value, this is an attempt to align their interests more closely with those of the shareholders. Many firms, including Disney and Home Depot, provide key executives with significant stock options that increase in value with improvements in the firm's stock price. Two of the largest payoffs from the exercise of options were the $706 million

exercise price

received in 2001 by Lawrence Ellison, chairman and CEO of Oracle, and the $570 million paid in 1998 to Michael Eisner, chairman and CEO of Disney. In 2012 Apple's new CEO, Tim Cook, received a compensation package totaling $378 million.

Some critics have argued that stock options tend to distort executive decisions by emphasizing short-term performance and giving them incentives to engage in accounting tricks to inflate the company's stock price. As a result, some firms have adopted alternative incentive compensation policies. One plan is to offer "restricted stock" to company executives. Such stock cannot be sold unless the manager remains with the company for a stated period of time. Microsoft, for example, stopped issuing stock options in 2003 and instead began offering restricted stock to its executives (and all other employees). For Microsoft managers, the restricted shares vest, or can be sold, over a five-year period. Another approach is to offer executives "performance shares," which are stock grants based on the company meeting specific performance targets. For example, in 2003 General Electric (GE) stopped issuing stock options to its CEO and instead offered 250,000 performance share units. Each performance share unit was equal to one share of common stock. Half of the performance share units will vest in five years if GE's cash flow increases at an average rate of 10 percent or more per year. The other half of the performance share units will vest in five years if GE's shareholder return meets or exceeds the cumulative five-year return of companies in the *Standard & Poor's 500* Stock Price Index (S&P 500).[9] The potential value of these performance share units at the time of issue was approximately $7.5 million, which was more than half of the CEO's total compensation package.

Threat of Takeovers Takeovers also can serve as an important deterrent to shareholder-management conflicts. The argument goes as follows: If managers act in their self-interest, then share values will be depressed, providing an incentive for someone to take over the company at a depressed level. The acquirer can then benefit from instituting policies that are consistent with shareholder wealth maximization, such as eliminating underperforming units and cutting overhead.

In addition to these mechanisms, we will learn in later chapters that certain corporate financial policies, such as dividends and capital structure, can also serve to control agency conflicts. Remaining agency problems give rise to costs that show up as a reduction in the value of the firm's shares in the marketplace.

1-3 Maximization of Shareholder Wealth: Managerial Strategies

If the managers of a firm accept the goal of maximizing shareholder wealth, how should they achieve this objective? One might be tempted to argue that managers will maximize shareholder wealth if they maximize the profits of the firm. After all, profit maximization is the predominant objective that emerges from static microeconomic models of the firm. Unfortunately, the profit maximization objective has too many shortcomings to provide consistent guidance to the practicing manager.

Before discussing some of these shortcomings, it is useful to highlight one important managerial decision rule that emerges from the microeconomic profit maximization model. To maximize profits, we learned in microeconomics that a firm should expand output to the point where the marginal (additional) cost (MC) of the last unit produced and sold just equals the marginal revenue (MR) received. To move beyond that output level will result in greater additional costs than additional revenues and hence lower profits. To fail to produce up to the point where $MC = MR$ results in a lower level of

[9] See Chapter 2 for more information on this index.

total profits than is possible by following the rule. This fundamental rule, that an economic action should be continued up to the point where the marginal revenue (benefit) just equals the marginal cost, offers excellent guidance for financial managers dealing with a wide range of problems. For example, we shall see that the basic capital expenditure analysis model is simply an adaptation of the $MC = MR$ rule. Other applications appear in the working capital management and capital structure areas.

Despite the insights it offers financial managers, the profit maximization model is not useful as the central decision-making model for the firm for several reasons. First, the standard microeconomic model of profit maximization is *static*; that is, it lacks a time dimension. Profit maximization as a goal offers no explicit basis for comparing long-term and short-term profits. Major decisions made by financial managers *must* reflect the time dimension. For example, capital expenditure decisions, which are central to the finance function, have a long-term impact on the performance of the firm. Financial managers must make trade-offs between short-run and long-run returns in conjunction with capital investment decisions.

profit (or earnings or income)

The second limitation of the profit maximization objective has to do with the definition of **profit (or earnings or income)**. Generally accepted accounting principles (as discussed in Chapter 3) result in literally hundreds of definitions of profit for a firm because of the latitude permitted in recognizing and accounting for costs and revenues. For example, Carolina Power & Light Company (CPL) was forced to reduce its earnings by $81.6 million because of an unfavorable regulatory treatment of its Harris nuclear plant. To offset this impact on the firm's earnings, CPL "changed its method of accounting for revenues to accrue unbilled revenues as of the date service is rendered, rather than when billed. The net effect of this accounting change was an increase in net income of $77 million, or $0.92 per share."[10] This arbitrary accounting change had *no* impact on the cash flows or economic well-being of CPL and hence had no impact on its value.

Even if we could agree on the appropriate accounting definition of profit, it is not clear whether a firm should attempt to maximize total profit, the rate of profit, or earnings per share (EPS).

Consider Columbia Beverages Inc., a firm with 10 million shares outstanding that currently earns a profit of $10 million after tax. If the firm sells an additional 1 million shares of stock and invests the proceeds to earn $100,000 per year, the total profit of the firm will increase from $10 million to $10.1 million. However, are shareholders better off? Prior to the stock sale, earnings per share are $1 ($10 million profit divided by 10 million shares of stock). After the stock sale, EPS decline to $0.92 ($10.1 million in earnings divided by 11 million shares). Although total profit has increased, EPS have declined. Stockholders are not better off as a result of this action.

This example might lead one to conclude that managers should seek to maximize EPS (for a given number of shares outstanding). This, too, can result in misleading actions. For example, consider a firm with total assets at the start of the year of $10 million. The firm is financed entirely with stock (1 million shares outstanding) and has no debt. After-tax earnings are $1 million, resulting in a return on stockholders' equity of 10 percent ($1 million in earnings divided by $10 million in stockholders' equity), and EPS are $1. The company decides to retain one-half of this year's earnings (increasing assets and equity to $10.5 million) and pay out the balance in stockholders' dividends. Next year the company's earnings total $1.029 million, resulting in EPS of $1.029. Are shareholders better off because of the decision by managers to reinvest $500,000 in the firm? In this example, a strong argument can be made that the position of shareholders has deteriorated. Although EPS increased from $1 per share to $1.029 per share, the realized return on stockholders' equity actually declined, from 10 percent to 9.8 percent ($1.029 million

[10] Carolina Power & Light Company, "Letter to Members of the Financial Community," January 25, 1991.

divided by \$10.5 million of stockholders' equity). In essence, the company's managers reinvested \$500,000 of stockholders' money to earn a return of only 5.8 percent (\$0.029 million of additional earnings divided by \$0.5 million of additional investment). This type of investment is not likely to result in maximum shareholder wealth. Shareholders could do better by investing in bonds yielding more than 5.8 percent.

The third major problem associated with the profit maximization objective is that it provides no direct way for financial managers to consider the risk associated with alternative decisions. For example, two projects generating identical future expected cash flows and requiring identical outlays may be vastly different with respect to the risk of the expected cash flows. Similarly, a firm can often increase its EPS by increasing the proportion of debt financing used in the firm's capital structure. However, leverage-induced increases in EPS come at the cost of increased financial risk. The financial marketplace will recognize the increased risk of financial distress that accompanies increases in debt financing and will value the resulting EPS accordingly.

1-3a Determinants of Value

If the profit maximization objective does not provide the proper guidance to managers seeking to maximize shareholder wealth, what rules should these managers follow? First, it is important to recognize that the maximization of shareholder wealth is a market concept, not an accounting concept. Managers should attempt to maximize the market value of the company's shares, not the accounting or **book value** per share. The book value reflects the historic cost of assets, not the earning capacity of those assets. Also, the book value does not consider the risk associated with the assets.

book value

Three major factors determine the market value of a company's shares of stock: the *amount of the cash flows expected to be generated for the benefit of stockholders*; *the timing of these cash flows*; and *the risk of the cash flows.*

Cash Flow

Throughout the book, we stress the importance of cash flows in the practice of financial management. **Cash flow** relates to the actual cash generated or paid by the firm. Only cash can be used to acquire assets, and only cash can be used to make valuable distributions to investors. In contrast, the accounting system focuses primarily on a matching over time of the historic, cost-based revenues and expenses of a company, resulting in a bottom-line earnings figure. But accounting earnings are often misleading because they do not reflect the actual cash inflows and outflows of the firm. For example, an accountant records depreciation expense on an asset each period over the depreciable life of that asset. Depreciation is designed to reflect the decline in value of that asset over time. However, depreciation itself results in no cash outflow.[11] The entire cash outflow occurred when the asset was originally purchased.

Cash flow

Timing of Cash Flows

The market value of a share of stock is influenced not only by the amount of the cash flows it is expected to produce, but also by the timing of those cash flows. If faced with the alternatives of receiving \$100 today or \$100 three years from today, you would surely choose the \$100 today because you could invest that \$100 for three years and accumulate the interest. Thus, financial managers must consider both the magnitude of the cash flows they expect to generate and the timing of these cash flows, because investors will reflect these dimensions of return in their valuation of the enterprise.

Risk

Finally, the market value of a share of stock is influenced by the perceived risk of the cash flows it is expected to generate. The relationship between risk and required return is an important concept in financial management and is discussed in detail in Chapter 8. In general, *the greater the perceived risk associated with an expected cash*

[11]Because depreciation is used in computing a firm's tax liability, it can affect *after-tax* cash flows. This concept is discussed further in Chapters 4 and 9.

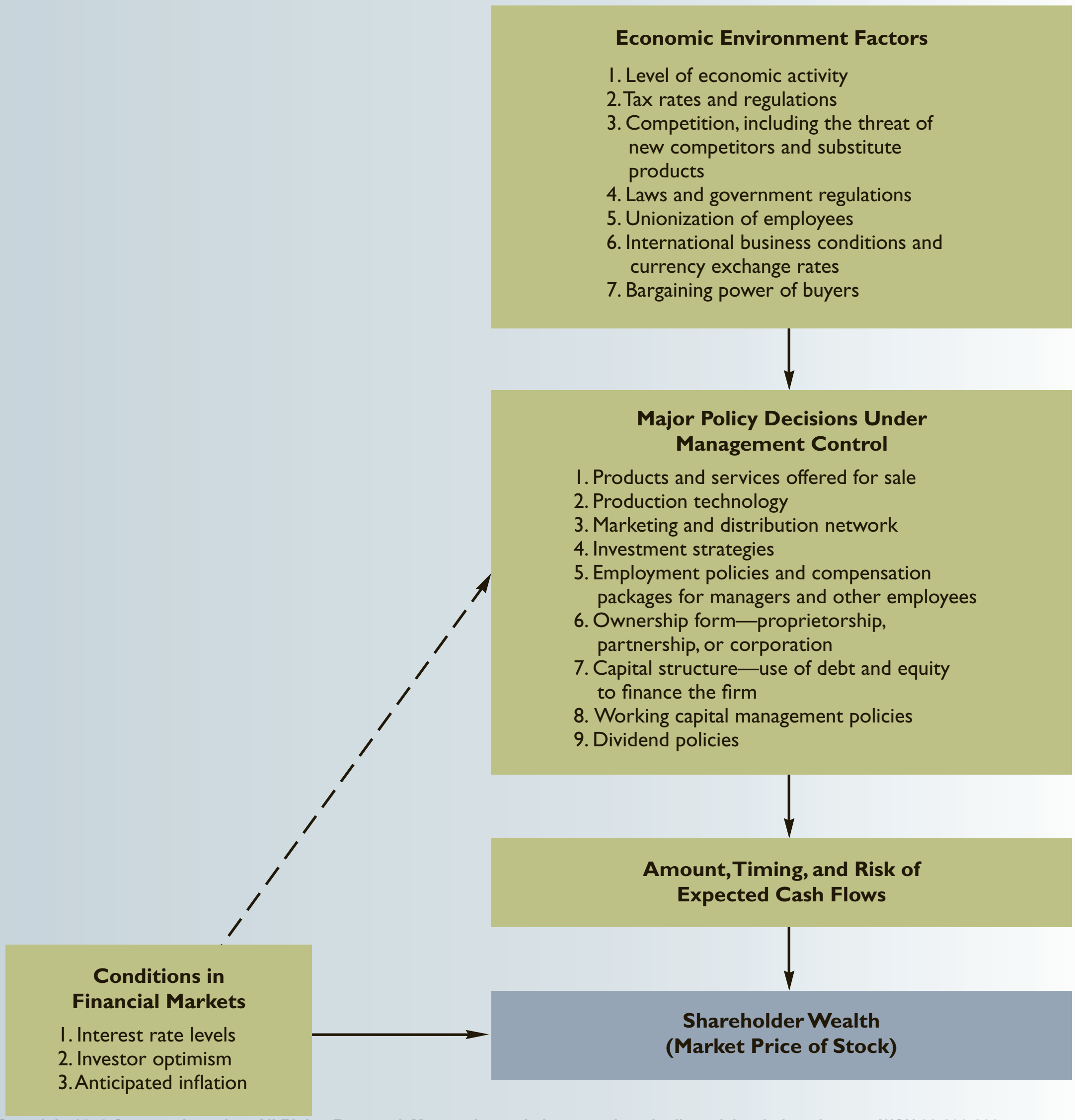
flow, the greater the rate of return required by investors and managers. Thus, financial managers must also consider the risk of the cash flows expected to be generated by the firm because investors will reflect this risk in their valuation of the enterprise.

1-3b Managerial Actions to Influence Value

How can managers influence the magnitude, timing, and risk of the cash flows expected to be generated by the firm in order to maximize shareholder wealth? Many factors ultimately influence the magnitude, timing, and risk of a firm's cash flows and thus the price of the firm's stock. Some of these factors are related to the external economic environment and are largely outside the direct control of managers. Other factors can be directly manipulated by the managers. Figure 1.1 illustrates the factors affecting stock prices.

FIGURE **1.1**

Factors Affecting Stock Prices



© Cengage Learning

The top panel enumerates some of the factors in the economic environment that have an impact on the strategic decisions managers can make. Even though economic environment factors are largely outside the direct control of managers, managers must be aware of how these factors affect the policy decisions under the control of management.

In this context, it is useful to consider a competitive strategy framework developed initially by Michael E. Porter and developed further by Alfred Rappaport.[12,13] Porter and Rappaport recommend that managers formulate an overall competitive strategy analyzing five competitive forces that can influence an industry's structure and can thereby ultimately affect the market prices of stocks of individual companies in a particular industry. The five competitive forces are:

1. The threat of new entrants
2. The threat of substitute products
3. The bargaining power of buyers
4. The bargaining power of suppliers
5. The rivalry among current competitors

By making policy decisions using such a competitive framework, managers can be in a position to create value for shareholders.

Accordingly, the focus of this book is on making financial decisions that can improve the amount, timing, or risk profile of a firm's cash flow stream, thus leading to increases in shareholder wealth and value. Financial managers are responsible not only for *measuring* value, but also for *creating* value.

1-4 Forms of Business Organization

Most businesses are organized as either a sole proprietorship, a partnership, or a corporation.

1-4a Sole Proprietorship

sole proprietorship

A **sole proprietorship** is a business owned by one person. One of the major advantages of the sole proprietorship business form is that it is easy and inexpensive to establish. A major disadvantage of a sole proprietorship is that the owner of the firm has *unlimited personal liability* for all debts and other obligations incurred by the firm.

HTTP:
The Small Business Administration offers some very helpful tips and information on running a small business, including financial guidance, local resources, and disaster assistance.
www.sba.gov

Sole proprietorships have another disadvantage in that their owners often have difficulty raising funds to finance growth. Thus, sole proprietorships are generally small. Although approximately 72 percent of all businesses in the United States are of this type, their revenue amounts to only 4.1 percent of the total U.S. business revenue.[14] Sole proprietorships are especially important in the retail trade, service, construction, and agriculture industries.

1-4b Partnership

partnership

A **partnership** is a business organization in which two or more co-owners form a business, normally with the intention of making a profit. Each partner agrees to provide a certain percentage of the funds necessary to run the business and/or agrees to do some

[12]Michael E. Porter, *Competitive Advantage* (New York: Free Press, 1985), Chapter 1.

[13]Alfred Rappaport, *Creating Shareholder Value* (New York: Free Press, 1986), Chapter 4.

[14]Internal Revenue Service, *Statistics of Income*, www.irs.gov.

portion of the necessary work. In return, the partners share in the profits (or losses) of the business.

general partnership

Partnerships may be either general or limited. In a **general partnership**, each partner has unlimited liability for all of the obligations of the business. Thus, general partnerships have the same major disadvantage as sole proprietorships. Approximately 17 percent of all partnerships in the United States are of this type.

limited partnership

A **limited partnership** usually involves one or more general partners and one or more limited partners. Although the limited partners may limit their liability, the extent of this liability can vary and is set forth in the partnership agreement. Limited partnerships are common in real estate ventures.

Partnerships have been relatively important in the agriculture, mining, oil and gas, finance, insurance, real estate, and services industries. Overall, partnerships account for about 10 percent of all U.S. business firms and less than 15 percent of total business revenues.[15]

Partnerships are relatively easy to form, but they must be re-formed when there is a change in the makeup of the general partners. Partnerships have a greater capacity to raise capital than sole proprietorships, but they lack the tremendous capital attraction ability of corporations.

1-4c Corporation

corporation

A **corporation** is a "legal person" composed of one or more actual individuals or legal entities. It is considered separate and distinct from those individuals or entities. Money contributed to start a corporation is called *capital stock* and is divided into shares; the owners of the corporation are called *stockholders* or *shareholders*.

Corporations account for less than 18 percent of all U.S. business firms but about 81 percent of U.S. business revenues and approximately 61 percent of U.S. business profits.[16]

HTTP:
Do you know who the 400 richest people in America are? Which are the 200 best-run small companies? The 500 largest private firms? *Forbes* magazine can tell you.
www.forbes.com

The corporate form of business organization has four major advantages over both sole proprietorships and partnerships.

- **Limited liability**. Once stockholders have paid for their shares, they are not liable for any obligations or debts the corporation may incur. They are liable only to the extent of their investment in the shares.
- **Permanency**. The legal existence of a corporation is not affected by whether stockholders sell their shares, which makes it a more permanent form of business organization.
- **Flexibility**. A change of ownership within a corporation is easily accomplished when one individual merely sells shares to another. Even when shares of stock are sold, the corporation continues to exist in its original form.
- **Ability to raise capital**. Due to the limited liability of its owners and the easy marketability of its shares of ownership, a corporation is able to raise large amounts of capital, which makes large-scale growth possible.

However, the ability to raise capital comes with a cost. In the typical large corporation, ownership is separated from management. This gives rise to potential conflicts of goals and certain costs, called *agency costs*, which were discussed earlier. However, the ability to raise large amounts of capital at relatively low cost is such a large advantage of the corporate form over sole proprietorships and partnerships that a certain level of agency costs is tolerated.

As a "legal person," a corporation can purchase and own assets, borrow money, sue, and be sued. Its officers are considered to be *agents* of the corporation and are authorized to act on the corporation's behalf. For example, only an officer, such as the treasurer, can sign an agreement to repay a bank loan for the corporation.

---

[15]Internal Revenue Service, *Statistics of Income*, www.irs.gov.

[16]Internal Revenue Service, *Statistics of Income*, www.irs.gov.

ETHICAL ISSUES

The Practice of Financial Management

In recent years, interest in the ethical dimensions of business practice has exploded. Front-page stories of the stock trading scandals involving the use of insider information that led to the downfall of Dennis Levine, Ivan Boesky, Raj Rajaratnam (Galleon Group), the Treasury bond trading scandal at Salomon Brothers that severely damaged Salomon's reputation and resulted in its top managers being forced to resign, the billions of dollars of questionable loans made by savings and loan executives that caused the collapse of much of the savings and loan industry, and the collateralized mortgage obligation (CMO) debacle that played a crucial role in the 2008–2009 financial collapse have focused attention on the ethical practices followed by business and financial managers.

Webster's defines ethics as "the discipline dealing with what is good or bad, right or wrong, or with moral duty and obligation."[a] John J. Casey defines business ethics as follows: "At its best, business ethics is excellence in management applied with fairness and dispatch. It involves hard-headed thought, not a sentimental reaction. It also involves articulate, effective communication to all parties...."[b] Casey identifies a number of techniques that managers can keep in mind when addressing the ethical dimensions of a business problem:

- Clarify the parameters of the problem
- Involve the right team of participants at the outset
- Collect all the facts bearing on the problem
- Articulate the harm and benefit that may result from proposed actions
- Weigh the consequences of alternatives
- Seek equity for those who may be affected

Other action guidelines that have been suggested for managers include to:

- Ensure that personal interests do not conflict with business decisions being made
- Respect the confidentiality of information entrusted to you
- Make decisions based on rational, objective business analysis rather than on inappropriate factors, such as race, sex, or religion
- Act fairly in dealing with customers while protecting the legitimate interests of the business.[c]

Ethical considerations impact all kinds of business and financial management decisions. Some financial decisions with important ethical dimensions, such as the collateralized mortgage obligations issued by large banks which led to the global financial collapse in 2008–2009, command national attention.

However, financial managers encounter day-to-day decisions that have important ethical dimensions. For example, as a new bank loan officer, should you recommend approval of a loan to a longtime friend, even though she does not quite meet the normal loan standards of the bank? As an account executive for a brokerage firm, should you recommend to your clients the securities of firms that have poor environmental management records or that deal in such products as alcohol and tobacco? Should you tell your father-in-law that your firm is likely to become a candidate for a takeover before this is publicly announced? As a division manager being evaluated in part on a return-on-assets calculation, should you lease assets to keep them out of the asset base for evaluation purposes and thereby enhance your apparent performance? When discussing the earnings performance of your company in quarterly and annual reports, should the discussion be limited to only GAAP (Generally Accepted Accounting Principles) definitions of earnings, like Apple and Netflix do, or should you urge investors to focus on alternative definitions of earnings that make the company's performance appear to be better (as many other rapidly growing tech firms do)?

This brief sampling of the areas of business and financial-management decision making that possess important ethical dimensions provides a feel for the breadth of ethical issues facing financial managers. In most cases, the answers to these questions are not clear-cut. Actual decision making is very complex and involves many trade-offs among parties with competing interests. However, explicitly recognizing the costs and benefits associated with each of these decisions and making the decision in an atmosphere of balanced objectivity and fairness can help financial managers avoid apparent or real breaches of their ethical trust.

An important concern for financial managers, who are entrusted with the resources of stockholders and are expected to maximize the value of these

ETHICAL ISSUES — CONTINUED

resources, is: How does a concern for ethics in the practice of financial management impact the goal of shareholder wealth maximization? Firms that expect employees to act according to a code of ethics in their business dealings can expect to have reduced litigation and damages expenses. A recent survey concluded that some 90 percent of the *Fortune* 500 companies have adopted a published code of conduct for their managers and other employees. High ethical standards are respected by customers and valued by investors. One could argue that ethical business dealings build long-term value for investors, whereas breaches of standards of business ethics may provide short-term gains at the expense of future returns and long-term value.

Throughout the text, we will highlight ethical issues that confront financial managers as they make important financial decisions. Our objective is to raise your consciousness of these issues, rather than to make moral judgments about what is right or wrong in each case. Those judgments are best left to you as topics of lively discussions with your classmates.

[a]*Webster's Third New International Dictionary* (Chicago: Merriam Webster, 1981).
[b]John J. Casey, "The New Urgency for Ethics in Banking," *The Banker* (March/April 1991): 44–50.
[c]Ibid., 48–49.

Corporate Organization and Governance In most corporations, the stockholders elect a *board of directors*, which, in theory, is responsible for overseeing the management of the corporation. In practice, however, the board of directors usually deals with broad policy matters, leaving the day-to-day operations of the business to the *officers*, who are selected by the board. Corporate officers normally include a *chairman of the board*, *chief executive officer* (*CEO*), *chief operating officer* (*COO*), *chief financial officer* (*CFO*), *president*, *vice president(s)*, *treasurer*, and *secretary*. In some corporations, one person holds more than one office; for instance, many small corporations have a person who serves as secretary-treasurer. In most corporations, the president and various other officers are also members of the board of directors. These officers are called "inside" board members, whereas other board members are called "outside" or independent board members. A corporation's board of directors usually contains at least three members.

Corporate Securities In return for the use of their funds, investors in a corporation are issued certificates, or *securities*. Corporate securities represent claims against the assets and future earnings of the firm.

There are two types of corporate securities. Investors who lend money to the corporation are issued *debt securities*; these investors expect periodic interest payments, as well as the eventual return of their principal. Owners of the corporation are issued *equity securities*. Equity securities take the form of either *common stock* or *preferred stock*. Common stock is a residual form of ownership; that is, the claims of common stockholders on the firm's earnings and assets are considered only after all other claims—such as those of the government, debt holders, and preferred stockholders—have been met. Common stockholders are considered to be true owners of the corporation. Common stockholders possess certain rights or claims, including dividend rights, asset rights, voting rights, and preemptive rights.[17] In Chapters 6 and 7, we illustrate how to obtain information about a company's common stock and debt securities from such sources as *The Wall Street Journal* and *finance.yahoo.com*.

HTTP:
Most major corporations today maintain extensive Web sites, displaying their histories, products, services, financial statements, and much more. Check out the Web sites of Ford, GM, and Boeing, and explore a few of their many links.

www.ford.com
www.gm.com
www.boeing.com

Preferred stockholders have priority over common stockholders with regard to the firm's earnings and assets. They are paid cash dividends before common stockholders. In

[17]Stockholder rights are discussed in greater detail in Chapter 7.

addition, if a corporation enters bankruptcy, is reorganized, or is dissolved, preferred stockholders have priority over common stockholders in the distribution of the corporation's assets. However, preferred stockholders are second in line behind the firm's creditors.

Because of the advantages of limited liability, permanency, and flexibility and because ownership shares in corporations tend to be more liquid (and hence relatively more valuable) than ownership interests in proprietorships and partnerships, it is easy to see why the majority of business conducted in the United States is done under the corporate form of organization.

1-4d Other Types of Business Organizations

Though sole proprietorships, partnerships, and corporations are the three basic forms of business organization, there are other types or organizations sometimes referred to as *hybrid organizations*, which have features of each of these basic forms.

The *subchapter S corporation* is one such example. The Internal Revenue Code permits companies with 100 or fewer domestic stockholders, and that meet certain other requirements, to register as an S corporation. With the S corporation, stockholders avoid the double taxation of earnings and pay taxes similar to partnerships. The S corporation, however, preserves the other benefits of the corporate setup, including limited liability. In recent years, there has been an increase in the number of firms registering as S corporations for tax purposes.

An increasingly popular form of hybrid organization is the *limited liability company (LLC)*. Like the S corporation, the earnings of the LLC flow through to the owners (called *members*) and are taxed at the individual level. Also, like the corporation, the LLC members have the benefit of limited liability. The LLC has fewer restrictions than the S corporation in terms of who can qualify as owners and greater flexibility in terms of accounting requirements. For example, the members need not be domestic, and from an accounting perspective no annual reports need to be filed. Examples of an LLC include Domino's Pizza LLC as well as SourceGas LLC, a natural gas company headquartered in Denver. The LLC legal form of business organization is frequently used by early-stage start-up companies.

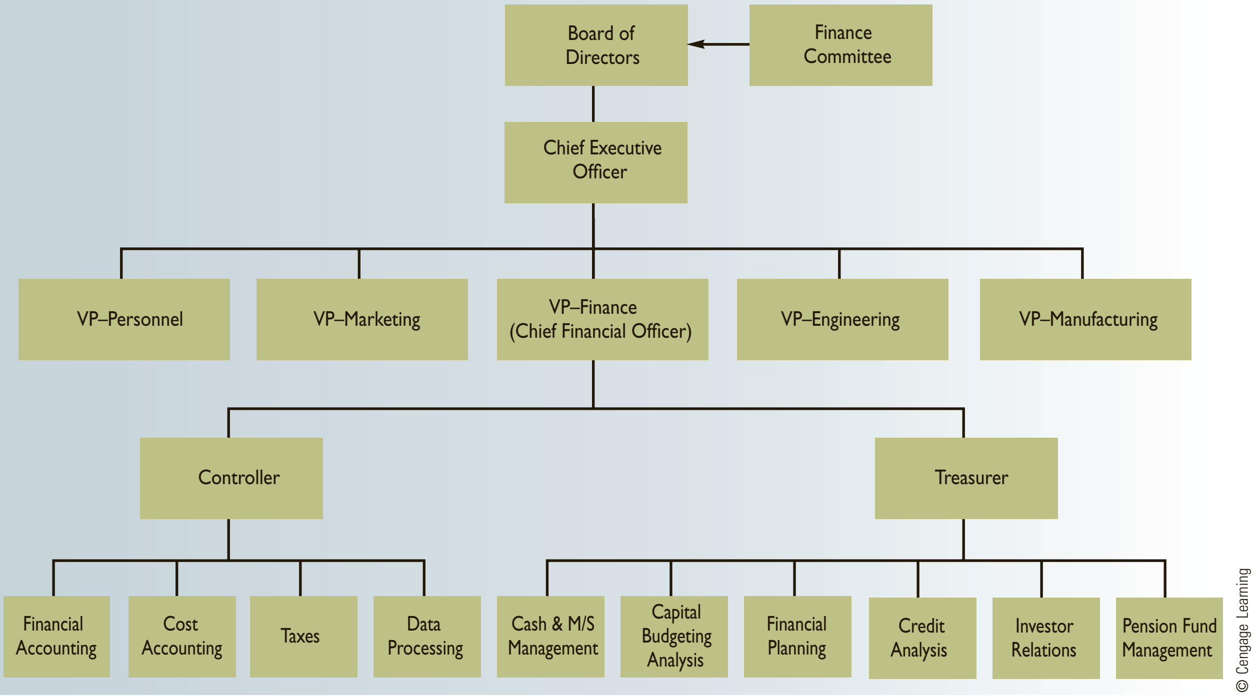
The *limited liability partnership (LLP)* is another type of business organization where all partners have limited liability. LLPs are taxed like any other partnership; thus, they share the tax advantage of regular partnerships and sole proprietorships. A form of LLP is the professional limited liability partnership (PLLP), which is a partnership formed to render specific professional services such as legal, accounting, or medical services. Examples of LLPs include Baker Botts LLP (legal practice) and PwC LLP (accounting and other management services). Goldman Sachs, a well-known investment banking firm, was a limited partnership until May 1999, when it converted to the corporate form in order to have better access to capital to finance growth, enable broad employee ownership of the firm, and enable the firm to engage in strategic acquisitions.

1-5 Organization of the Financial Management Function

Many firms divide the decision-making responsibilities of management among several different officers, which often include those in manufacturing, marketing, finance, personnel, and engineering. A sample organization chart emphasizing the finance function is shown in Figure 1.2. The finance function is usually headed by a vice president of

FIGURE 1.2

Sample Organization Chart



finance, or *chief financial officer (CFO)*, who reports to the president or the CEO. In some corporations the CFO may also be a member of the board of directors. In addition to overseeing the accounting, treasury, tax, and audit functions, today's CFO often has responsibility for strategic planning, monitoring and trading foreign currencies, managing the risk from volatile interest rates, and monitoring production and inventory levels. CFOs also must be able to communicate effectively with the investment community concerning the financial performance of the company.

The chief financial officer often distributes the financial management responsibilities between the *controller* and the *treasurer*. The controller normally has responsibility for all accounting-related activities. These include such functions as the following:

- **Financial accounting.** This function involves the preparation of the financial statements for the firm, such as the balance sheet, income statement, and the statement of cash flows.
- **Cost accounting.** This department often has responsibility for preparing the firm's operating budgets and monitoring the performance of the departments and divisions within the firm.
- **Taxes.** This unit prepares the reports that the company must file with the various government (local, state, and federal) agencies.
- **Data processing.** Given its responsibilities involving corporate accounting and payroll activities, the controller may also have management responsibility for the company's data-processing operations.

The treasurer is normally concerned with the acquisition, custody, and expenditure of funds. These duties often include the following:

- **Cash and marketable securities management.** This group monitors the firm's short-term finances—forecasting its cash needs, obtaining funds from bankers and other sources when needed, and investing any excess funds in short-term interest-earning securities.

- **Capital budgeting analysis.** This department is responsible for analyzing capital expenditures—that is, the purchase of long-term assets, such as new facilities and equipment.
- **Financial planning.** This department is responsible for analyzing the alternative sources of long-term funds, such as the issuance of bonds or common stock, that the firm will need to maintain and expand its operations.
- **Credit analysis.** Most companies have a department that is responsible for determining the amount of credit that the firm will extend to each of its customers. Although this group is responsible for performing financial analysis, it may sometimes be located in the marketing area of the firm because of its close relationship to sales.
- **Investor relations.** Many large companies have a unit responsible for working with institutional investors (for example, mutual funds), bond rating agencies, stockholders, and the general financial community.
- **Pension fund management.** The treasurer may also have responsibility for the investment of employee pension fund contributions. The investment analysis and portfolio management functions may be performed either within the firm or through outside investment advisors.

It should be emphasized that the specific functions of the controller and treasurer shown in Figure 1.2 are illustrative only and that the actual functions performed vary from company to company. For example, in some companies, the treasurer may have responsibility for tax matters. Also, as shown in Figure 1.2, the board of directors of the company may establish audit and finance committees, consisting of a number of directors and officers of the firm with substantial financial expertise, to make recommendations on broad financial policy issues.

1-5a Financial Management and Other Disciplines

As you pursue your study of financial management, you should keep in mind that financial management is not a totally independent area in business administration. Instead, it draws heavily on related disciplines and fields of study. The most important of these are *accounting* and *economics*; in the latter discipline, both *macroeconomics* and *microeconomics* are significant. *Marketing*, *production*, *human resources management*, and the study of *quantitative methods* also have an impact on the financial management field. Each of these is discussed here.

Accounting

Financial managers manage a firm's financial and physical assets and secure the funding needed to support these assets. Accountants keep score of the firm's performance. Financial managers often turn to accounting data to assist them in making decisions. Generally a company's accountants are responsible for developing financial reports and measures that assist its managers in assessing the past performance and future direction of the firm and in meeting certain legal obligations, such as the payment of taxes. The accountant's role includes the development of financial statements, such as the *balance sheet*, the *income statement*, and the *statement of cash flows*.

Financial managers are primarily concerned with a firm's cash flows, because they often determine the feasibility of certain investment and financing decisions. The financial manager refers to accounting data when making future resource allocation decisions concerning long-term investments, when managing current investments in working capital, and when making a number of other financial decisions (for example, determining the most appropriate capital structure and identifying the best and most timely sources of funds needed to support the firm's investment programs).

In many small and medium-sized firms, the accounting function and the financial management function may be handled by the same person or group of persons. In such cases, the distinctions just identified may become blurred.

HTTP:
The Web site maintained by *The Economist* magazine provides extensive background reading on many financial issues you will encounter in this course.

www.economist.com

Similarly, *The Wall Street Journal*'s Web site is a rich source of information and examples of issues central to this course.

online.wsj.com/home-page

Economics

There are two areas of economics with which the financial manager must be familiar: *microeconomics* and *macroeconomics*. Microeconomics deals with he