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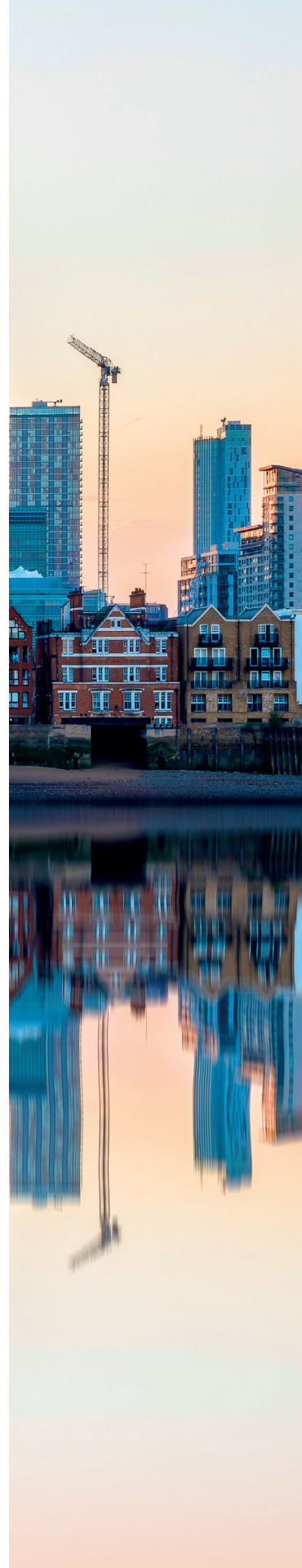
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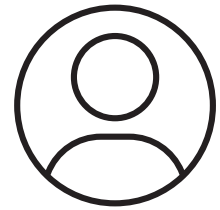
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and joy. —J. B.*

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

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Brief Contents

PART 1
INTRODUCTION 33

Chapter 1 The Corporation and Financial Markets 34
Chapter 2 Introduction to Financial Statement Analysis 59
Chapter 3 Financial Decision Making and the Law of One Price 99

PART 2
TIME, MONEY, AND
INTEREST RATES 135

Chapter 4 The Time Value of Money 136
Chapter 5 Interest Rates 181
Chapter 6 Valuing Bonds 209

PART 3
VALUING PROJECTS
AND FIRMS 247

Chapter 7 Investment Decision Rules 248
Chapter 8 Fundamentals of Capital Budgeting 275
Chapter 9 Valuing Stocks 313

PART 4
RISK AND RETURN 355

Chapter 10 Capital Markets and the Pricing of Risk 356
Chapter 11 Optimal Portfolio Choice and the Capital Asset Pricing Model 395
Chapter 12 Estimating the Cost of Capital 445
Chapter 13 Investor Behavior and Capital Market Efficiency 483

PART 5
CAPITAL STRUCTURE 525

Chapter 14 Capital Structure in a Perfect Market 526
Chapter 15 Debt and Taxes 555
Chapter 16 Financial Distress, Managerial Incentives, and Information 589
Chapter 17 Payout Policy 635

PART 6
ADVANCED VALUATION 677

Chapter 18 Capital Budgeting and Valuation with Leverage 678
Chapter 19 Valuation and Financial Modeling: A Case Study 729

PART 7
OPTIONS 761

Chapter 20 Financial Options 762
Chapter 21 Option Valuation 795
Chapter 22 Real Options 831

PART 8
LONG-TERM FINANCING 865

Chapter 23 Raising Equity Capital 866
Chapter 24 Debt Financing 909
Chapter 25 Leasing 931

PART 9
SHORT-TERM FINANCING 959

Chapter 26 Working Capital Management 960
Chapter 27 Short-Term Financial Planning 983

PART 10
SPECIAL TOPICS 1005

Chapter 28 Mergers and Acquisitions 1006
Chapter 29 Corporate Governance 1037
Chapter 30 Risk Management 1061
Chapter 31 International Corporate Finance 1103

Detailed Contents

PART 1 INTRODUCTION 33

Chapter 1 The Corporation and Financial Markets 34

- 1.1 The Four Types of Firms 35**
 - Sole Proprietorships 35
 - Partnerships 36
 - Limited Liability Companies 37
 - Corporations 37
 - Tax Implications for Corporate Entities 38
 - Corporate Taxation Around the World 39
- 1.2 Ownership Versus Control of Corporations 39**
 - The Corporate Management Team 39
 - **INTERVIEW with** David Viniar 40
 - The Financial Manager 41
 - **FINANCE IN TIMES OF DISRUPTION**
The Dodd-Frank Act 42
 - The Goal of the Firm 42
 - The Firm and Society 42
 - Ethics and Incentives within Corporations 43
 - Shareholder versus Stakeholder Value 43
 - **FINANCE IN TIMES OF DISRUPTION**
The Dodd-Frank Act on Corporate Compensation 44
 - Citizens United v. Federal Election Commission 45
 - Airlines in Bankruptcy 46
- 1.3 The Stock Market 46**
 - Primary and Secondary Stock Markets 47
 - Traditional Trading Venues 47
 - **INTERVIEW with** Adena T. Friedman 48
 - New Competition and Market Changes 49
 - Dark Pools 50
- 1.4 Fintech: Finance and Technology 51**
 - Telecommunications 51
 - Security and Verification 51
 - Automation of Banking Services 52
 - Big Data and Machine Learning 52
 - Competition 53
 - Key Points and Equations 53 ■ Key Terms 54 ■ Further Reading 55 ■ Problems 55

Chapter 2 Introduction to Financial Statement Analysis 59

- 2.1 Firms' Disclosure of Financial Information 60**
 - Preparation of Financial Statements 60
 - International Financial Reporting Standards 60
 - **INTERVIEW with** Ruth Porat 61
 - Types of Financial Statements 62
- 2.2 The Balance Sheet 62**
 - Assets 63
 - Liabilities 64
 - Stockholders' Equity 65
 - Market Value Versus Book Value 65
 - Enterprise Value 66
- 2.3 The Income Statement 66**
 - Earnings Calculations 67
- 2.4 The Statement of Cash Flows 68**
 - Operating Activity 69
 - Investment Activity 70
 - Financing Activity 70
- 2.5 Other Financial Statement Information 71**
 - Statement of Stockholders' Equity 71
 - Management Discussion and Analysis 72
 - Notes to the Financial Statements 72
- 2.6 Financial Statement Analysis 73**
 - Profitability Ratios 73
 - Liquidity Ratios 74
 - Working Capital Ratios 75
 - Interest Coverage Ratios 76
 - Leverage Ratios 77
 - Valuation Ratios 79
 - **COMMON MISTAKE** Mismatched Ratios 79
 - Operating Returns 80
 - The DuPont Identity 82
- 2.7 Financial Reporting in Practice 84**
 - Enron 84
 - WorldCom 84
 - Sarbanes-Oxley Act 85
 - **FINANCE IN TIMES OF DISRUPTION**
Bernard Madoff's Ponzi Scheme 86
 - Dodd-Frank Act 86
 - Foreign Regulation: Wirecard 86
 - Key Points and Equations 87 ■ Key Terms 89 ■ Further Reading 90 ■ Problems 90 ■ Data Case 96

Chapter 3 Financial Decision Making and the Law of One Price 99

- 3.1 Valuing Decisions 100**
 - Analyzing Costs and Benefits 100
 - Using Market Prices to Determine Cash Values 101
 - When Competitive Market Prices Are Not Available 103
- 3.2 Interest Rates and the Time Value of Money 103**
 - The Time Value of Money 103
 - The Interest Rate: An Exchange Rate Across Time 103
- 3.3 Present Value and the NPV Decision Rule 106**
 - Net Present Value 106
 - The NPV Decision Rule 107
 - NPV and Cash Needs 109
- 3.4 Arbitrage and the Law of One Price 110**
 - Arbitrage 110
 - Law of One Price 111
- 3.5 No-Arbitrage and Security Prices 111**
 - Valuing a Security with the Law of One Price 111
 - An Old Joke 115
 - The NPV of Trading Securities and Firm Decision Making 115
 - Valuing a Portfolio 116
 - **FINANCE IN TIMES OF DISRUPTION** Liquidity and the Informational Role of Prices 117
 - Arbitrage in Markets 118
 - Where Do We Go from Here? 119
 - Key Points and Equations 120 ■ Key Terms 121 ■ Further Reading 121 ■ Problems 121 ■ Data Case 125

- Appendix The Price of Risk 126**
 - Risky Versus Risk-Free Cash Flows 126
 - Arbitrage with Transactions Costs 131

PART 2 TIME, MONEY, AND INTEREST RATES 135

Chapter 4 The Time Value of Money 136

- 4.1 The Timeline 137**
- 4.2 The Three Rules of Time Travel 138**
 - Rule 1: Comparing and Combining Values 138
 - Rule 2: Moving Cash Flows Forward in Time 139

- Rule 3: Moving Cash Flows Back in Time 140
 - Rule of 72 141
- Applying the Rules of Time Travel 142

4.3 Valuing a Stream of Cash Flows 144

4.4 Calculating the Net Present Value 146

- **USING EXCEL** Calculating Present Values in Excel 148

4.5 Perpetuities and Annuities 149

- Perpetuities 149
 - Historical Examples of Perpetuities 149
- Annuities 151
 - **COMMON MISTAKE** Discounting One Too Many Times 151
 - Formula for an Annuity Due 154
 - Growing Cash Flows 155

4.6 Using an Annuity Spreadsheet or Calculator 159

- Annuity Calculator 161

4.7 Non-Annual Cash Flows 162

4.8 Solving for the Cash Payments 163

4.9 The Internal Rate of Return 166

- **USING EXCEL** Excel's IRR Function 169

Key Points and Equations 170 ■ Key Terms 171 ■ Further Reading 172 ■ Problems 172 ■ Data Case 178

Appendix Solving for the Number of Periods 179

Chapter 5 Interest Rates 181

5.1 Interest Rate Quotes and Adjustments 182

- The Effective Annual Rate 182
 - **COMMON MISTAKE** Using the Wrong Discount Rate in the Annuity Formula 183
- Annual Percentage Rates 184

5.2 Application: Discount Rates and Loans 186

5.3 The Determinants of Interest Rates 187

- **FINANCE IN TIMES OF DISRUPTION** Teaser Rates and Subprime Loans 188
- Inflation and Real Versus Nominal Rates 188
- Investment and Interest Rate Policy 190
- The Yield Curve and Discount Rates 191
- The Yield Curve and the Economy 192
 - **COMMON MISTAKE** Using the Annuity Formula When Discount Rates Vary by Maturity 192
 - **INTERVIEW with** Dr. Janet Yellen 194

5.4 Risk and Taxes 195

- Risk and Interest Rates 196
- After-Tax Interest Rates 197

5.5 The Opportunity Cost of Capital 198

- **COMMON MISTAKE** States Dig a Multi-Trillion Dollar Hole by Discounting at the Wrong Rate 199

Key Points and Equations 200 ■ Key Terms 201 ■ Further Reading 201 ■ Problems 201 ■ Data Case 206

Appendix Continuous Rates and Cash Flows 207

Discount Rates for a Continuously Compounded APR 207
Continuously Arriving Cash Flows 207

Chapter 6 Valuing Bonds 209

6.1 Bond Cash Flows, Prices, and Yields 210

Bond Terminology 210
Zero-Coupon Bonds 210

■ FINANCE IN TIMES OF DISRUPTION

Negative Bond Yields 212
Coupon Bonds 213

6.2 Dynamic Behavior of Bond Prices 215

Discounts and Premiums 215
Time and Bond Prices 216
Interest Rate Changes and Bond Prices 218

- Clean and Dirty Prices for Coupon Bonds 219

6.3 The Yield Curve and Bond Arbitrage 221

Replicating a Coupon Bond 221
Valuing a Coupon Bond Using Zero-Coupon Yields 222
Coupon Bond Yields 223
Treasury Yield Curves 224

6.4 Corporate Bonds 224

Corporate Bond Yields 225
■ Are Treasuries Really Default-Free Securities? 225
Bond Ratings 227
Corporate Yield Curves 228

6.5 Sovereign Bonds 228

- **FINANCE IN TIMES OF DISRUPTION** The Credit Crisis and Bond Yields 229

- **FINANCE IN TIMES OF DISRUPTION** European Sovereign Debt Yields: A Puzzle 231

- **INTERVIEW with** Carmen M. Reinhart 232

Key Points and Equations 233 ■ Key Terms 234 ■ Further Reading 235 ■ Problems 235 ■ Data Case 239 ■ Case Study 240

Appendix Forward Interest Rates 242

Computing Forward Rates 242

Computing Bond Yields from Forward Rates 243

Forward Rates and Future Interest Rates 244

PART 3 VALUING PROJECTS AND FIRMS 247

Chapter 7 Investment Decision Rules 248

7.1 NPV and Stand-Alone Projects 249

Applying the NPV Rule 249
The NPV Profile and IRR 249
Alternative Rules Versus the NPV Rule 250

- **INTERVIEW with** Dick Grannis 251

7.2 The Internal Rate of Return Rule 252

Applying the IRR Rule 252
Pitfall #1: Delayed Investments 252
Pitfall #2: Multiple IRRs 253

- **COMMON MISTAKE** IRR Versus the IRR Rule 255

Pitfall #3: Nonexistent IRR 255

7.3 The Payback Rule 256

Applying the Payback Rule 256
Payback Rule Pitfalls in Practice 257

- Why Do Rules Other Than the NPV Rule Persist? 258

7.4 Choosing between Projects 258

NPV Rule and Mutually Exclusive Investments 258
IRR Rule and Mutually Exclusive Investments 259
The Incremental IRR 260

- **COMMON MISTAKE** Manipulating the IRR with Financing 261

- When Can Returns Be Compared? 263

7.5 Project Selection with Resource Constraints 263

Evaluating Projects with Different Resource Requirements 263
Profitability Index 264
Shortcomings of the Profitability Index 266

Key Points and Equations 266 ■ Key Terms 267 ■ Further Reading 267 ■ Problems 267 ■ Data Case 273

Appendix Computing the NPV Profile Using Excel's Data Table Function 274

Chapter 8 Fundamentals of Capital Budgeting 275

- 8.1 Forecasting Earnings 276**
 - Revenue and Cost Estimates 276
 - Incremental Earnings Forecast 277
 - Indirect Effects on Incremental Earnings 279
 - **COMMON MISTAKE** The Opportunity Cost of an Idle Asset 280
 - Sunk Costs and Incremental Earnings 281
 - **COMMON MISTAKE** The Sunk Cost Fallacy 281
 - Real-World Complexities 282
- 8.2 Determining Free Cash Flow and NPV 283**
 - Calculating Free Cash Flow from Earnings 283
 - Calculating Free Cash Flow Directly 285
 - Calculating the NPV 286
 - **USING EXCEL** Capital Budgeting Using Excel 287
- 8.3 Choosing among Alternatives 288**
 - Evaluating Manufacturing Alternatives 288
 - Comparing Free Cash Flows for Cisco's Alternatives 289
- 8.4 Further Adjustments to Free Cash Flow 289**
 - **INTERVIEW with** David Holland 294
- 8.5 Analyzing the Project 295**
 - Break-Even Analysis 295
 - **COMMON MISTAKE** Corporate Tax Rates and Investment 296
 - Sensitivity Analysis 296
 - **USING EXCEL** Project Analysis Using Excel 298
 - Scenario Analysis 299
 - Key Points and Equations 301 ■ Key Terms 302 ■ Further Reading 302 ■ Problems 303 ■ Data Case 309

Appendix MACRS Depreciation 311

Chapter 9 Valuing Stocks 313

- 9.1 The Dividend-Discount Model 314**
 - A One-Year Investor 314
 - Dividend Yields, Capital Gains, and Total Returns 315
 - The Mechanics of a Short Sale 316
 - A Multiyear Investor 317
 - The Dividend-Discount Model Equation 318
- 9.2 Applying the Dividend-Discount Model 318**
 - Constant Dividend Growth 318

Dividends Versus Investment and Growth 319

■ John Burr Williams's *Theory of Investment Value* 320

Changing Growth Rates 322

Limitations of the Dividend-Discount Model 324

9.3 Total Payout and Free Cash Flow Valuation Models 324

Share Repurchases and the Total Payout Model 324

The Discounted Free Cash Flow Model 326

9.4 Valuation Based on Comparable Firms 330

Valuation Multiples 330

Limitations of Multiples 332

Comparison with Discounted Cash Flow Methods 333

Stock Valuation Techniques: The Final Word 334

■ Kenneth Cole Productions—What Happened? 335

■ Cryptocurrencies and Price Bubbles 336

■ **INTERVIEW with** Susan Athey 338

9.5 Information, Competition, and Stock Prices 339

Information in Stock Prices 339

Competition and Efficient Markets 340

Lessons for Investors and Corporate Managers 342

■ **INTERVIEW with** Fahmi Quadir 344

The Efficient Markets Hypothesis Versus No Arbitrage 345

Key Points and Equations 345 ■ Key

Terms 347 ■ Further Reading 347 ■

Problems 348 ■ Data Case 353

PART 4 RISK AND RETURN 355

Chapter 10 Capital Markets and the Pricing of Risk 356

- 10.1 Risk and Return: Insights from 96 Years of Investor History 357**
- 10.2 Common Measures of Risk and Return 360**
 - Probability Distributions 360
 - Expected Return 360
 - Variance and Standard Deviation 361
- 10.3 Historical Returns of Stocks and Bonds 363**
 - Computing Historical Returns 363
 - Average Annual Returns 365

- The Variance and Volatility of Returns 367
 Estimation Error: Using Past Returns to Predict the Future 368
- Arithmetic Average Returns Versus Compound Annual Returns 370
- 10.4 The Historical Tradeoff Between Risk and Return 370**
 The Returns of Large Portfolios 371
 The Returns of Individual Stocks 372
- 10.5 Common Versus Independent Risk 373**
 Theft Versus Earthquake Insurance: An Example 373
 The Role of Diversification 374
- 10.6 Diversification in Stock Portfolios 375**
 Firm-Specific Versus Systematic Risk 376
 No Arbitrage and the Risk Premium 377
- **FINANCE IN TIMES OF DISRUPTION** Diversification Benefits During Market Crashes 379
 - **COMMON MISTAKE** A Fallacy of Long-Run Diversification 380
- 10.7 Measuring Systematic Risk 381**
 Identifying Systematic Risk: The Market Portfolio 381
 Sensitivity to Systematic Risk: Beta 381
- 10.8 Beta and the Cost of Capital 384**
 Estimating the Risk Premium 384
- **COMMON MISTAKE** Beta Versus Volatility 384
- The Capital Asset Pricing Model 386
- Key Points and Equations 386 ■ Key Terms 388 ■ Further Reading 388 ■ Problems 388 ■ Data Case 393
- Chapter 11 Optimal Portfolio Choice and the Capital Asset Pricing Model 395**
- 11.1 The Expected Return of a Portfolio 396**
- 11.2 The Volatility of a Two-Stock Portfolio 397**
 Combining Risks 397
 Determining Covariance and Correlation 398
- **COMMON MISTAKE** Computing Variance, Covariance, and Correlation in Excel 400
- Computing a Portfolio's Variance and Volatility 401
- 11.3 The Volatility of a Large Portfolio 403**
 Large Portfolio Variance 403
 Diversification with an Equally Weighted Portfolio 404
- **INTERVIEW with** Anne Martin 406
- Diversification with General Portfolios 407
- 11.4 Risk Versus Return: Choosing an Efficient Portfolio 407**
 Efficient Portfolios with Two Stocks 408
 The Effect of Correlation 410
 Short Sales 411
 Efficient Portfolios with Many Stocks 412
- **NOBEL PRIZE** Harry Markowitz and James Tobin 413
- 11.5 Risk-Free Saving and Borrowing 415**
 Investing in Risk-Free Securities 415
 Borrowing and Buying Stocks on Margin 416
 Identifying the Tangent Portfolio 417
- 11.6 The Efficient Portfolio and Required Returns 419**
 Portfolio Improvement: Beta and the Required Return 419
 Expected Returns and the Efficient Portfolio 421
- 11.7 The Capital Asset Pricing Model 423**
 The CAPM Assumptions 423
 Supply, Demand, and the Efficiency of the Market Portfolio 424
 Optimal Investing: The Capital Market Line 424
- 11.8 Determining the Risk Premium 425**
 Market Risk and Beta 425
- **NOBEL PRIZE** William Sharpe on the CAPM 427
- The Security Market Line 428
 Beta of a Portfolio 428
 Summary of the Capital Asset Pricing Model 430
- Key Points and Equations 430 ■ Key Terms 433 ■ Further Reading 433 ■ Problems 434 ■ Data Case 440
- Appendix The CAPM with Differing Interest Rates 442**
 The Efficient Frontier with Differing Saving and Borrowing Rates 442
 The Security Market Line with Differing Interest Rates 442
- Chapter 12 Estimating the Cost of Capital 445**
- 12.1 The Equity Cost of Capital 446**
- 12.2 The Market Portfolio 447**
 Constructing the Market Portfolio 447
 Market Indexes 447
- Value-Weighted Portfolios and Rebalancing 448
- The Market Risk Premium 449

- 12.3 Beta Estimation 451**
 Using Historical Returns 451
 Identifying the Best-Fitting Line 453
 Using Linear Regression 454
 ■ Why Not Estimate Expected Returns Directly? 455
- 12.4 The Debt Cost of Capital 455**
 Debt Yields Versus Returns 455
 ■ **COMMON MISTAKE** Using the Debt Yield as Its Cost of Capital 456
 Debt Betas 457
- 12.5 A Project's Cost of Capital 458**
 All-Equity Comparables 458
 Levered Firms as Comparables 459
 The Unlevered Cost of Capital 459
 Industry Asset Betas 461
- 12.6 Project Risk Characteristics and Financing 463**
 Differences in Project Risk 463
 ■ **COMMON MISTAKE** Adjusting for Execution Risk 465
 Financing and the Weighted Average Cost of Capital 465
 ■ **INTERVIEW with** Shelagh Glaser 466
 ■ **COMMON MISTAKE** Using a Single Cost of Capital in Multi-Divisional Firms 467
- 12.7 Final Thoughts on Using the CAPM 468**
 Key Points and Equations 469 ■ Key Terms 471 ■ Further Reading 471 ■ Problems 472 ■ Data Case 476
- Appendix Practical Considerations When Forecasting Beta 477**
 Time Horizon 477
 The Market Proxy 477
 Beta Variation and Extrapolation 477
 Outliers 478
 ■ **COMMON MISTAKE** Changing the Index to Improve the Fit 479
 ■ **USING EXCEL** Estimating Beta Using Excel 480
 Other Considerations 481
- Chapter 13 Investor Behavior and Capital Market Efficiency 483**
- 13.1 Competition and Capital Markets 484**
 Identifying a Stock's Alpha 484
 Profiting from Non-Zero Alpha Stocks 485
- 13.2 Information and Rational Expectations 486**
 Informed Versus Uninformed Investors 486
 Rational Expectations 487
- 13.3 The Behavior of Individual Investors 488**
 Underdiversification and Portfolio Biases 488
 Excessive Trading and Overconfidence 489
 Individual Behavior and Market Prices 491
- 13.4 Systematic Trading Biases 491**
 Hanging on to Losers and the Disposition Effect 491
 ■ **NOBEL PRIZE** Prospect Theory, Mental Accounting, and Nudges 492
 Investor Attention, Mood, and Experience 492
 Herd Behavior 493
 Implications of Behavioral Biases 493
- 13.5 The Efficiency of the Market Portfolio 494**
 Trading on News or Recommendations 494
 ■ **NOBEL PRIZE** The 2013 Prize: An Enigma? 496
 The Performance of Fund Managers 496
 The Winners and Losers 499
- 13.6 Style-Based Techniques and the Market Efficiency Debate 500**
 Size Effects 500
 ■ **INTERVIEW with** Jonathan Clements 502
 Momentum 504
 ■ Market Efficiency and the Efficiency of the Market Portfolio 505
 Implications of Positive-Alpha Trading Strategies 505
- 13.7 Multifactor Models of Risk 507**
 Using Factor Portfolios 507
 Smart Beta 508
 Long-Short Portfolios 508
 Selecting the Portfolios 509
 The Cost of Capital with Fama-French-Carhart Factor Specification 510
- 13.8 Methods Used in Practice 512**
 Financial Managers 512
 Investors 513
 Key Points and Equations 514 ■ Key Terms 516 ■ Further Reading 516 ■ Problems 517
- Appendix Building a Multifactor Model 523**
- PART 5 CAPITAL STRUCTURE 525**
- Chapter 14 Capital Structure in a Perfect Market 526**
- 14.1 Equity Versus Debt Financing 527**
 Financing a Firm with Equity 527
 Financing a Firm with Debt and Equity 528
 The Effect of Leverage on Risk and Return 529

- 14.2 Modigliani-Miller I: Leverage, Arbitrage, and Firm Value 531**
 MM and the Law of One Price 531
 Homemade Leverage 531
 ■ MM and the Real World 532
 The Market Value Balance Sheet 533
 Application: A Leveraged Recapitalization 534
- 14.3 Modigliani-Miller II: Leverage, Risk, and the Cost of Capital 536**
 Leverage and the Equity Cost of Capital 536
 Capital Budgeting and the Weighted Average Cost of Capital 537
 ■ **COMMON MISTAKE** Is Debt Better Than Equity? 540
 Computing the WACC with Multiple Securities 540
 Levered and Unlevered Betas 540
 ■ **NOBEL PRIZE** Franco Modigliani and Merton Miller 542
- 14.4 Capital Structure Fallacies 543**
 Leverage and Earnings per Share 543
 ■ **FINANCE IN TIMES OF DISRUPTION** Bank Capital Regulation and the ROE Fallacy 545
 Equity Issuances and Dilution 546
- 14.5 MM: Beyond the Propositions 547**
 Key Points and Equations 548 ■ Key Terms 549 ■ Further Reading 549 ■ Problems 550

Chapter 15 Debt and Taxes 555

- 15.1 The Interest Tax Deduction 556**
- 15.2 Valuing the Interest Tax Shield 558**
 The Interest Tax Shield and Firm Value 558
 ■ Pizza and Taxes 559
 The Interest Tax Shield with Permanent Debt 559
 The Weighted Average Cost of Capital with Taxes 560
 ■ The Repatriation Tax: Why Some Cash-Rich Firms Borrowed 561
 The Interest Tax Shield with a Target Debt-Equity Ratio 562
- 15.3 Recapitalizing to Capture the Tax Shield 564**
 The Tax Benefit 564
 The Share Repurchase 565
 No Arbitrage Pricing 565
 Analyzing the Recap: The Market Value Balance Sheet 566

- 15.4 Personal Taxes 567**
 Including Personal Taxes in the Interest Tax Shield 567
 Determining the Actual Tax Advantage of Debt 570
 Valuing the Interest Tax Shield with Personal Taxes 571
 ■ **COMMON MISTAKE** How to Save for Retirement 572
- 15.5 Optimal Capital Structure with Taxes 573**
 Do Firms Prefer Debt? 573
 Limits to the Tax Benefit of Debt 576
 Growth and Debt 577
 ■ **INTERVIEW with** Andrew Balson 578
 Other Tax Shields 579
 The Low Leverage Puzzle 579
 ■ Employee Stock Options 581
 Key Points and Equations 581 ■ Key Terms 582 ■ Further Reading 582 ■ Problems 583 ■ Data Case 587

Chapter 16 Financial Distress, Managerial Incentives, and Information 589

- 16.1 Default and Bankruptcy in a Perfect Market 590**
 Armin Industries: Leverage and the Risk of Default 590
 Bankruptcy and Capital Structure 591
- 16.2 The Costs of Bankruptcy and Financial Distress 592**
 The Bankruptcy Code 593
 Direct Costs of Bankruptcy 593
 Indirect Costs of Financial Distress 594
 ■ **FINANCE IN TIMES OF DISRUPTION** The Chrysler Prepack 597
- 16.3 Financial Distress Costs and Firm Value 598**
 Armin Industries: The Impact of Financial Distress Costs 598
 Who Pays for Financial Distress Costs? 598
- 16.4 Optimal Capital Structure: The Tradeoff Theory 600**
 The Present Value of Financial Distress Costs 600
 Optimal Leverage 601
- 16.5 Exploiting Debt Holders: The Agency Costs of Leverage 603**
 Excessive Risk-Taking and Asset Substitution 603
 Debt Overhang and Under-Investment 604

	<ul style="list-style-type: none"> ■ FINANCE IN TIMES OF DISRUPTION <ul style="list-style-type: none"> Bailouts, Distress Costs, and Debt Overhang 605 Agency Costs and the Value of Leverage 606 The Leverage Ratchet Effect 607 Debt Maturity and Covenants 608 ■ Why Do Firms Go Bankrupt? 609 	
16.6	Motivating Managers: The Agency Benefits of Leverage 609 <ul style="list-style-type: none"> Concentration of Ownership 610 Reduction of Wasteful Investment 610 ■ Excessive Perks and Corporate Scandals 611 ■ FINANCE IN TIMES OF DISRUPTION <ul style="list-style-type: none"> Moral Hazard, Bailouts, and the Appeal of Leverage 612 Leverage and Commitment 612 ■ NOBEL PRIZE Contract Theory 613 	
16.7	Agency Costs and the Tradeoff Theory 613 <ul style="list-style-type: none"> The Optimal Debt Level 614 Debt Levels in Practice 615 	
16.8	Asymmetric Information and Capital Structure 615 <ul style="list-style-type: none"> Leverage as a Credible Signal 615 Issuing Equity and Adverse Selection 617 ■ NOBEL PRIZE Markets with Asymmetric Information and Adverse Selection 619 Implications for Equity Issuance 619 Implications for Capital Structure 620 ■ NOBEL PRIZE The Cost of Bank Runs 623 	
16.9	Capital Structure: The Bottom Line 623 <ul style="list-style-type: none"> Key Points and Equations 624 ■ Key Terms 626 ■ Further Reading 626 ■ Problems 627 	
Chapter 17	Payout Policy 635	
17.1	Distributions to Shareholders 636 <ul style="list-style-type: none"> Dividends 636 Share Repurchases 638 	
17.2	Comparison of Dividends and Share Repurchases 639 <ul style="list-style-type: none"> Alternative Policy 1: Pay Dividend with Excess Cash 639 Alternative Policy 2: Share Repurchase (No Dividend) 640 ■ COMMON MISTAKE Repurchases and the Supply of Shares 642 Alternative Policy 3: High Dividend (Equity Issue) 642 Modigliani-Miller and Dividend Policy Irrelevance 643 	
	<ul style="list-style-type: none"> ■ COMMON MISTAKE The Bird in the Hand Fallacy 644 Dividend Policy with Perfect Capital Markets 644 	
17.3	The Tax Disadvantage of Dividends 644 <ul style="list-style-type: none"> Taxes on Dividends and Capital Gains 644 Optimal Dividend Policy with Taxes 646 	
17.4	Dividend Capture and Tax Clienteles 648 <ul style="list-style-type: none"> The Effective Dividend Tax Rate 648 Tax Differences Across Investors 649 Clientele Effects 650 ■ INTERVIEW with John Connors 651 	
17.5	Payout Versus Retention of Cash 653 <ul style="list-style-type: none"> Retaining Cash with Perfect Capital Markets 654 Taxes and Cash Retention 655 Adjusting for Investor Taxes 656 Issuance and Distress Costs 657 Agency Costs of Retaining Cash 658 ■ COMMON MISTAKE Mischaracterizing Buybacks 660 	
17.6	Signaling with Payout Policy 660 <ul style="list-style-type: none"> Dividend Smoothing 660 Dividend Signaling 661 ■ Can a Dividend Cut be Good News? 662 Signaling and Share Repurchases 663 	
17.7	Stock Dividends, Splits, and Spin-Offs 665 <ul style="list-style-type: none"> Stock Dividends and Splits 665 Spin-Offs 666 ■ Berkshire Hathaway's A & B Shares 667 Key Points and Equations 668 ■ Key Terms 670 ■ Further Reading 670 ■ Problems 671 ■ Data Case 675 	
PART 6 ADVANCED VALUATION 677		
Chapter 18	Capital Budgeting and Valuation with Leverage 678	
18.1	Overview of Key Concepts 679	
18.2	The Weighted Average Cost of Capital Method 680 <ul style="list-style-type: none"> ■ INTERVIEW with Zane Rowe 681 Using the WACC to Value a Project 682 Summary of the WACC Method 683 Implementing a Constant Debt-Equity Ratio 684 	
18.3	The Adjusted Present Value Method 686 <ul style="list-style-type: none"> The Unlevered Value of the Project 686 Valuing the Interest Tax Shield 687 Summary of the APV Method 688 	

- 18.4 The Flow-to-Equity Method 690**
 Calculating the Free Cash Flow to Equity 690
 Valuing Equity Cash Flows 691
 ■ What Counts as “Debt”? 692
 Summary of the Flow-to-Equity Method 692
- 18.5 Project-Based Costs of Capital 693**
 Estimating the Unlevered Cost of Capital 694
 Project Leverage and the Equity Cost of Capital 694
 Determining the Incremental Leverage of a Project 696
 ■ **COMMON MISTAKE** Re-Levering the WACC 696
- 18.6 APV with Other Leverage Policies 698**
 Constant Interest Coverage Ratio 698
 Predetermined Debt Levels 699
 A Comparison of Methods 701
- 18.7 Other Effects of Financing 701**
 Issuance and Other Financing Costs 701
 Security Mispricing 702
 Financial Distress and Agency Costs 703
 ■ **FINANCE IN TIMES OF DISRUPTION**
 Government Loan Guarantees 704
- 18.8 Advanced Topics in Capital Budgeting 704**
 Periodically Adjusted Debt 705
 Leverage and the Cost of Capital 707
 The WACC or FTE Method with Changing Leverage 709
 Personal Taxes 710
 Key Points and Equations 712 ■ Key Terms 714 ■ Further Reading 714 ■ Problems 715 ■ Data Case 721
- Appendix Foundations and Further Details 723**
 Deriving the WACC Method 723
 The Levered and Unlevered Cost of Capital 724
 Solving for Leverage and Value Simultaneously 725
 The Residual Income and Economic Value Added Valuation Methods 727
- Chapter 19 Valuation and Financial Modeling: A Case Study 729**
- 19.1 Valuation Using Comparables 730**
- 19.2 The Business Plan 732**
 Operational Improvements 732
 Capital Expenditures: A Needed Expansion 733
 Working Capital Management 734
 Capital Structure Changes: Levering Up 734
- 19.3 Building the Financial Model 735**
 Forecasting Earnings 735
 ■ **INTERVIEW with** Joseph L. Rice, III 736
 Working Capital Requirements 738
 Forecasting Free Cash Flow 739
 ■ **USING EXCEL** Summarizing Model Outputs 741
 The Balance Sheet and Statement of Cash Flows (Optional) 742
 ■ **USING EXCEL** Auditing Your Financial Model 744
- 19.4 Estimating the Cost of Capital 745**
 CAPM-Based Estimation 745
 Unlevering Beta 746
 Ideko’s Unlevered Cost of Capital 746
- 19.5 Valuing the Investment 747**
 The Multiples Approach to Continuation Value 748
 The Discounted Cash Flow Approach to Continuation Value 749
 ■ **COMMON MISTAKE** Continuation Values and Long-Run Growth 751
 APV Valuation of Ideko’s Equity 751
 A Reality Check 752
 ■ **COMMON MISTAKE** Missing Assets or Liabilities 753
 IRR and Cash Multiples 753
- 19.6 Sensitivity Analysis 754**
 Key Points and Equations 755 ■ Key Terms 756 ■ Further Reading 756 ■ Problems 757
- Appendix Compensating Management 759**

PART 7 OPTIONS 761

Chapter 20 Financial Options 762

- 20.1 Option Basics 763**
 Understanding Option Contracts 763
 Interpreting Stock Option Quotations 763
 Options on Other Financial Securities 765
- 20.2 Option Payoffs at Expiration 766**
 Long Position in an Option Contract 766
 Short Position in an Option Contract 767
 Profits for Holding an Option to Expiration 769
 Returns for Holding an Option to Expiration 770
 Combinations of Options 771

- 20.3 **Put-Call Parity** 774
 - 20.4 **Factors Affecting Option Prices** 777
 - Strike Price and Stock Price 777
 - Arbitrage Bounds on Option Prices 777
 - Option Prices and the Exercise Date 777
 - Option Prices and Volatility 778
 - 20.5 **Exercising Options Early** 779
 - Non-Dividend-Paying Stocks 779
 - Dividend-Paying Stocks 781
 - 20.6 **Options and Corporate Finance** 783
 - Equity as a Call Option 783
 - Debt as an Option Portfolio 784
 - Credit Default Swaps 784
 - **FINANCE IN TIMES OF DISRUPTION**
 - Credit Default Swaps 785
 - Pricing Risky Debt 786
 - Agency Conflicts 787
 - Key Points and Equations 788 ■ Key Terms 789 ■ Further Reading 789 ■ Problems 789 ■ Data Case 794
- Chapter 21 Option Valuation 795**
- 21.1 **The Binomial Option Pricing Model** 796
 - A Two-State Single-Period Model 796
 - The Binomial Pricing Formula 798
 - A Multiperiod Model 799
 - Making the Model Realistic 803
 - 21.2 **The Black-Scholes Option Pricing Model** 804
 - The Black-Scholes Formula 804
 - **INTERVIEW with** Myron S. Scholes 805
 - Implied Volatility 810
 - **FINANCE IN TIMES OF DISRUPTION** The VIX Index 811
 - The Replicating Portfolio 812
 - 21.3 **Risk-Neutral Probabilities** 814
 - A Risk-Neutral Two-State Model 814
 - Implications of the Risk-Neutral World 814
 - Risk-Neutral Probabilities and Option Pricing 815
 - 21.4 **Risk and Return of an Option** 817
 - 21.5 **Corporate Applications of Option Pricing** 819
 - Beta of Risky Debt 819
 - **COMMON MISTAKE** Valuing Employee Stock Options 822
 - **NOBEL PRIZE** Pricing Financial Options 823
 - Agency Costs of Debt 823
- Key Points and Equations 824 ■ Key Terms 826 ■ Further Reading 826 ■ Problems 826
- Chapter 22 Real Options 831**
- 22.1 **Real Versus Financial Options** 832
 - 22.2 **Decision Tree Analysis** 832
 - Representing Uncertainty 833
 - Real Options 834
 - Solving Decision Trees 834
 - 22.3 **The Option to Delay: Investment as a Call Option** 835
 - An Investment Option 835
 - Factors Affecting the Timing of Investment 838
 - Why Are There Empty Lots in Built-Up Areas of Big Cities? 839
 - Investment Options and Firm Risk 840
 - **FINANCE IN TIMES OF DISRUPTION** Uncertainty, Investment, and the Option to Delay 841
 - 22.4 **Growth and Abandonment Options** 842
 - Valuing Growth Potential 842
 - **Growth Options and COVID** 844
 - The Option to Expand 844
 - The Option to Abandon 845
 - **INTERVIEW with** Kenneth C. Frazier 846
 - 22.5 **Investments with Different Lives** 848
 - Equivalent Annual Benefit Method 849
 - 22.6 **Optimally Staging Investments** 850
 - 22.7 **Rules of Thumb** 853
 - The Profitability Index Rule 854
 - The Hurdle Rate Rule 854
 - The Option to Repay a Mortgage 856
 - 22.8 **Key Insights from Real Options** 857
 - Key Points and Equations 857 ■ Key Terms 859 ■ Further Reading 859 ■ Problems 859
- PART 8 LONG-TERM FINANCING 865**
- Chapter 23 Raising Equity Capital 866**
- 23.1 **Equity Financing for Private Companies** 867
 - Sources of Funding 867
 - Crowdfunding: The Wave of the Future? 868
 - **INTERVIEW with** Kevin Laws 869
 - Venture Capital Investing 872
 - Venture Capital Financing Terms 874

- **COMMON MISTAKE** Misinterpreting Start-Up Valuations 874
- From Launch to Liquidity 876
- Exiting an Investment in a Private Company 878
- 23.2 The Initial Public Offering 878**
 - Advantages and Disadvantages of Going Public 878
 - Types of Offerings 879
 - The Mechanics of an IPO 881
 - Google's IPO 881
 - An Alternative to the Traditional IPO: Spotify's Direct Listing 886
- 23.3 IPO Puzzles 886**
 - Underpricing 886
 - Cyclicality and Recent Trends 889
 - **FINANCE IN TIMES OF DISRUPTION**
 - Worldwide IPO Deals in 2008–2009 890
 - Cost of an IPO 890
 - Long-Run Underperformance 891
- 23.4 SPACs: A New Way to Go Public 892**
 - The SPAC Process 893
 - Analyzing a Deal 894
 - SPAC Performance 896
- 23.5 The Seasoned Equity Offering 897**
 - The Mechanics of an SEO 897
 - Price Reaction 898
 - Issuance Costs 899
 - Key Points and Equations 900 ■ Key Terms 901 ■ Further Reading 902 ■ Problems 903 ■ Data Case 907

Chapter 24 Debt Financing 909

- 24.1 Corporate Debt 910**
 - Public Debt 910
 - Private Debt 914
- 24.2 Other Types of Debt 915**
 - Sovereign Debt 915
 - Green Bonds 916
 - Municipal Bonds 917
 - Detroit's Art Museum at Risk 917
 - Asset-Backed Securities 918
 - **FINANCE IN TIMES OF DISRUPTION**
 - CDOs, Subprime Mortgages, and the Financial Crisis 918
- 24.3 Bond Covenants 920**
- 24.4 Repayment Provisions 921**
 - Call Provisions 921
 - New York City Calls Its Municipal Bonds 923
 - Sinking Funds 925

- Convertible Provisions 925
- Key Points and Equations 927 ■ Key Terms 928 ■ Further Reading 929 ■ Problems 929

Chapter 25 Leasing 931

- 25.1 The Basics of Leasing 932**
 - Examples of Lease Transactions 932
 - Lease Payments and Residual Values 933
 - Leases Versus Loans 934
 - Calculating Auto Lease Payments 935
 - End-of-Term Lease Options 935
 - Other Lease Provisions 937
- 25.2 Accounting, Tax, and Legal Consequences of Leasing 937**
 - Lease Accounting 938
 - Operating Leases at Alaska Air Group 939
 - The Tax Treatment of Leases 940
 - Leases and Bankruptcy 941
 - Synthetic Leases 942
- 25.3 The Leasing Decision 942**
 - Cash Flows for a True Tax Lease 943
 - Lease Versus Buy (An Unfair Comparison) 944
 - Lease Versus Borrow (The Right Comparison) 945
 - Evaluating a True Tax Lease 947
 - Evaluating a Non-Tax Lease 948
- 25.4 Reasons for Leasing 948**
 - Valid Arguments for Leasing 949
 - **INTERVIEW with** Mark Long 952
 - Suspect Arguments for Leasing 953
 - Key Points and Equations 953 ■ Key Terms 954 ■ Further Reading 955 ■ Problems 955

PART 9 SHORT-TERM FINANCING 959

Chapter 26 Working Capital Management 960

- 26.1 Overview of Working Capital 961**
 - The Cash Cycle 961
 - Firm Value and Working Capital 963
- 26.2 Trade Credit 964**
 - Trade Credit Terms 964
 - Trade Credit and Market Frictions 964
 - Managing Float 965

26.3	Receivables Management 966
	Determining the Credit Policy 966
	Monitoring Accounts Receivable 967
26.4	Payables Management 969
	Determining Accounts Payable Days Outstanding 969
	Stretching Accounts Payable 970
26.5	Inventory Management 970
	Benefits of Holding Inventory 971
	Costs of Holding Inventory 971
	■ FINANCE IN TIMES OF DISRUPTION
	Supply Chains during COVID-19 972
26.6	Cash Management 973
	Motivation for Holding Cash 973
	Alternative Investments 974
	■ FINANCE IN TIMES OF DISRUPTION
	Hoarding Cash 974
	Key Points and Equations 976 ■ Key
	Terms 977 ■ Further Reading 977 ■
	Problems 978 ■ Data Case 981
Chapter 27	Short-Term Financial Planning 983
27.1	Forecasting Short-Term Financing Needs 984
	Seasonalities 984
	Negative Cash Flow Shocks 987
	Positive Cash Flow Shocks 988
27.2	The Matching Principle 989
	Permanent Working Capital 989
	Temporary Working Capital 989
	Financing Policy Choices 990
27.3	Short-Term Financing with Bank Loans 991
	Single, End-of-Period Payment Loan 991
	Line of Credit 991
	Bridge Loan 992
	Common Loan Stipulations and Fees 992
27.4	Short-Term Financing with Commercial Paper 994
	■ FINANCE IN TIMES OF DISRUPTION
	Short-Term Financing Costs during Crises 995
27.5	Short-Term Financing with Secured Financing 996
	Accounts Receivable as Collateral 996
	Inventory as Collateral 996
	■ A Seventeenth-Century Financing Solution 997
	■ Loan Guarantees: The Ex-Im Bank Controversy 998
	Sales as Collateral 999
	Key Points and Equations 1000 ■ Key
	Terms 1001 ■ Further Reading 1001 ■
	Problems 1001

PART 10 SPECIAL TOPICS 1005

Chapter 28	Mergers and Acquisitions 1006
28.1	Background and Historical Trends 1007
	Merger Waves 1007
	Types of Mergers 1009
28.2	Market Reaction to a Takeover 1009
28.3	Reasons to Acquire 1010
	Economies of Scale and Scope 1011
	Vertical Integration 1011
	Expertise 1011
	Monopoly Gains 1012
	Efficiency Gains 1012
	Tax Savings from Operating Losses 1013
	Diversification 1014
	Earnings Growth 1014
	Managerial Motives to Merge 1016
28.4	Valuation and the Takeover Process 1017
	Valuation 1017
	The Offer 1018
	Merger “Arbitrage” 1019
	Tax and Accounting Issues 1020
	Board and Shareholder Approval 1021
28.5	Takeover Defenses 1022
	Poison Pills 1022
	Staggered Boards 1023
	White Knights 1024
	Golden Parachutes 1025
	Recapitalization 1025
	Other Defensive Strategies 1025
	Regulatory Approval 1026
	■ Weyerhaeuser’s Hostile Bid for Willamette Industries 1026
28.6	Who Gets the Value Added from a Takeover? 1027
	The Free Rider Problem 1027
	Toeholds 1028
	The Leveraged Buyout 1028
	■ The Leveraged Buyout of RJR-Nabisco by KKR 1029
	The Freezeout Merger 1031
	Competition 1032
	Key Points and Equations 1032 ■ Key
	Terms 1034 ■ Further Reading 1034 ■
	Problems 1034
Chapter 29	Corporate Governance 1037
29.1	Corporate Governance and Agency Costs 1038
29.2	Monitoring by the Board of Directors and Others 1039
	Types of Directors 1039

Board Independence 1039

■ **COMMON MISTAKE** “Celebrity”
Boards 1041

Board Size and Performance 1041

Other Monitors 1041

29.3 Compensation Policies 1042

Stock and Options 1042

Pay and Performance Sensitivity 1042

29.4 Managing Agency Conflict 1044

Direct Action by Shareholders 1044

■ **Shareholder Activism at *The New York Times*** 1047

Management Entrenchment 1047

The Threat of Takeover 1048

29.5 Regulation 1048

The Sarbanes-Oxley Act 1048

■ **INTERVIEW with** Lawrence E.
Harris 1049

The Cadbury Commission 1051

Dodd-Frank Act 1051

Insider Trading 1052

■ **Martha Stewart and ImClone** 1053

29.6 Corporate Governance Around the World 1053

Protection of Shareholder Rights 1053

Controlling Owners and Pyramids 1053

The Stakeholder Model 1056

Cross-Holdings 1056

29.7 The Tradeoff of Corporate Governance 1057

Key Points and Equations 1058 ■ Key
Terms 1059 ■ Further Reading 1060 ■
Problems 1060

Chapter 30 Risk Management 1061

30.1 Insurance 1062

The Role of Insurance: An Example 1062

Insurance Pricing in a Perfect Market 1062

The Value of Insurance 1064

The Costs of Insurance 1066

The Insurance Decision 1068

30.2 Commodity Price Risk 1068

Hedging with Vertical Integration and
Storage 1069

Hedging with Long-Term Contracts 1069

Hedging with Futures Contracts 1071

■ **COMMON MISTAKE** Hedging Risk 1073

■ **Differing Hedging Strategies** 1074

Deciding to Hedge Commodity Price
Risk 1074

■ FINANCE IN TIMES OF DISRUPTION

Negative Oil Prices 1075

30.3 Exchange Rate Risk 1075

Exchange Rate Fluctuations 1075

Hedging with Forward Contracts 1077

Cash-and-Carry and the Pricing of Currency
Forwards 1078

■ FINANCE IN TIMES OF DISRUPTION

Arbitrage in Currency Markets? 1081

Hedging with Options 1082

30.4 Interest Rate Risk 1085

Interest Rate Risk Measurement:

Duration 1086

Duration-Based Hedging 1087

■ **The Savings and Loan Crisis** 1091

Swap-Based Hedging 1091

Key Points and Equations 1095 ■ Key

Terms 1097 ■ Further Reading 1097 ■

Problems 1098

Chapter 31 International Corporate Finance 1103

31.1 Internationally Integrated Capital Markets 1104

31.2 Valuation of Foreign Currency Cash Flows 1105

WACC Valuation Method in Domestic

Currency 1106

Using the Law of One Price as a Robustness
Check 1108

31.3 Valuation and International Taxation 1109

The TCJA: A New Approach to International
Taxation 1110

Harmonizing the Tax Treatment of Exports:
GILTI and FDII 1110

Avoiding Base Erosion: BEAT 1112

31.4 Internationally Segmented Capital Markets 1112

Differential Access to Markets 1113

Macro-Level Distortions 1113

Implications 1114

31.5 Capital Budgeting with Exchange Risk 1116

■ **INTERVIEW with** Sally Johnson 1118

Key Points and Equations 1119 ■ Key

Terms 1119 ■ Further Reading 1120 ■

Problems 1120 ■ Data Case 1122

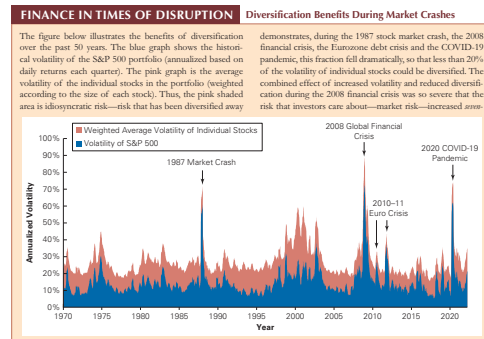
Glossary 1123

Index 1145

Bridging Theory and Practice

The Law of One Price as the Unifying Valuation Framework

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



Focus on Financial Crises and Disruptions

Finance in Times of Disruption boxes reflect the reality of the recent COVID-19 pandemic, the global financial crisis, and sovereign debt crises, illustrating important lessons learned. Twenty-four boxes across the book illustrate and analyze key details.

Study Aids with a Practical Focus

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

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

COMMON MISTAKE Discounting One Too Many Times

The perpetuity formula assumes that the first payment occurs at the end of the first period (at date 1). Sometimes perpetuities have cash flows that start later in the future. In this case, we can adapt the perpetuity formula to compute the present value, but we need to do so carefully to avoid a common mistake.

To illustrate, consider the MBA graduation party described in Example 4.7. Rather than starting immediately, suppose that the first party will be held two years from today (for the current entering class). How would this delay change the amount of the donation required?

Now the timeline looks like this:

We need to determine the present value of these cash flows, as it tells us the amount of money in the bank needed today to finance the future parties. We cannot apply the perpetuity formula directly, however, because these cash flows are not *exactly* a perpetuity as we defined it. Specifically, the cash flow in the first period is “missing.” But consider the situation on date 1—at that point,

the first party is one period away and then the cash flows are periodic. From the perspective of date 1, this is a perpetuity, and we can apply the formula. From the preceding calculation, we know we need \$375,000 on date 1 to have enough to start the parties on date 2. We rewrite the timeline as follows:

Our goal can now be restated more simply: How much do we need to invest today to have \$375,000 in one year? This is a simple present value calculation:

$$PV = \$375,000 / 1.08 = \$347,222 \text{ today}$$

A common mistake is to discount the \$375,000 twice because the first party is in two periods. Remember—the present value formula for the perpetuity *already discounts the cash flows to one period prior to the first cash flow*. Keep in mind that this common mistake may be made with perpetuities, annuities, and all of the other special cases discussed in this section. All of these formulas discount the cash flows to one period prior to the first cash flow.

EXAMPLE 4.14 Evaluating an Annuity with Monthly Cash Flows

Problem
You are about to purchase a new car and have two options to pay for it. You can pay \$20,000 in cash immediately, or you can get a loan that requires you to pay \$500 each month for the next 48 months (four years). If the monthly interest rate you earn on your cash is 0.5%, which option should you take?

Solution
Let's start by writing down the timeline of the loan payments:

The timeline shows that the loan is a 48-period annuity. Using the annuity formula the present value is

$$PV \text{ (48-period annuity of } \$500) = \$500 \times \frac{1}{0.005} \left(1 - \frac{1}{1.005^{48}} \right) = \$21,290$$

Alternatively, we may use the annuity spreadsheet to solve the problem:

	NPER	RATE	PMT	PV	Excel Formula
Given	48	0.5%	500	0	
Solve for PV			(21,290)	0	=PV(0.005,48,500,0)

Thus, taking the loan is equivalent to paying \$21,290 today. So, by paying \$20,000 in cash rather than taking the loan, you save the equivalent of \$1,290 today.

Fahmi Quadir is the Founder and Chief Investment Officer of Salkhet Capital Management. Her investments focus on short selling by deploying investigative and forensic methods to identify businesses potentially engaged in fraud, money laundering, and other predatory activity.

QUESTION: What is the role of short-sellers in the market, and why are they important for market efficiency?

ANSWER: At times of market exuberance, without meaningful short interest to weigh on valuations, prices can climb quite literally to the moon, thus rendering the end of the cycle even more painful. Short-sellers are thus necessary for healthy market function and historically we have seen that in markets where short selling is either restricted or banned, there are meaningful consequences on the price of securities.

The public broadly has the misconception that short selling is conducted by greed-blind individuals, hiding behind their screens, betting against economic prosperity. However, the vast majority of short-selling volume is largely agnostic, driven by algorithms and technical signals. Short selling allows market participants to access additional leverage and further build their long bets, but also importantly provides a way to hedge portfolios and protect against losses.

There are instances where a company is

INTERVIEW WITH FAHMI QUADIR

ANSWER: Unfortunately, all arguments leveled against short selling are rooted in human psychology and not in market theory, or logic for that matter. As humans, we are perennially optimistic about our own prospects, and that extends to the prospects of the businesses we invest in. The idea that someone could bet against those prospects feels inherently distasteful. In fact, this idea goes hand-in-hand with the susceptibility of the vast majority of us to be defrauded. Human progress has largely been reliant on faith in our fellow man, so I make no complaints about these qualities. However, the consequence is that most struggle to find the capacity to understand short selling, particularly in times of crisis. Company executives looking to place blame and shift accountability can cry and suggest market manipulation rather than admit to their own mistakes. Politicians too, can point to short-sellers, and even restrict short selling when markets fall, as that would be easier than remedying their own policy-making failures.

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

Applications that Reflect Real Practice

Corporate Finance features actual companies and leaders in the field.

Interviews with notable practitioners—four new for this edition—highlighting leaders in the field and addressing topical subjects.

General Interest boxes highlight timely material from financial publications that shed light on business problems and real-company practices.

Teaching Students to Think Finance

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

Simplified Presentation of Mathematics

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

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

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

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

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

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

Practice Finance to Learn Finance

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

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

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

Data Cases present in-depth scenarios in a business setting with questions designed to guide students’ analysis. Many questions involve the use of Internet resources and Excel techniques.

USING EXCEL Excel’s IRR Function

Excel also has a built-in function, IRR, that will calculate the IRR of a stream of cash flows. Excel’s IRR function has the format, IRR (values, guess), where “values” is the range containing the cash flows, and “guess” is an optional starting guess where Excel begins its search for an IRR. See the example below:

	A	B	C	D	E
1	Period	0	1	2	3
2	Cash Flow C_t	(1,000.0)	300.0	400.0	500.0
3	IRR	8.9% =IRR(B2:E2)			

There are three things to note about the IRR function. First, the values given to the IRR function should include all of the cash flows of the project, including the one at date 0. In this sense, the IRR and NPV functions in Excel are inconsistent. Second, like the NPV function, the IRR ignores the period associated with any blank cells. Finally, as we will discuss in Chapter 7, in some settings the IRR function may fail to find a solution, or may give a different answer, depending on the initial guess.

See the eTextbook or MyLab Finance for an interactive IRR calculator.

TABLE 8.1 SPREADSHEET

HomeNet’s Incremental Earnings Forecast

	Year	0	1	2	3	4	5
Incremental Earnings Forecast (\$000s)							
1	Sales	—	26,000	26,000	26,000	26,000	—
2	Cost of Goods Sold	—	(11,000)	(11,000)	(11,000)	(11,000)	—
3	Gross Profit	—	15,000	15,000	15,000	15,000	—
4	Selling, General, and Administrative	—	(2,800)	(2,800)	(2,800)	(2,800)	—
5	Research and Development	(15,000)	—	—	—	—	—
6	Depreciation	—	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
7	EBIT	(15,000)	10,700	10,700	10,700	10,700	(1,500)
8	Income Tax at 20%	—	3,000	(2,140)	(2,140)	(2,140)	300
9	Unlevered Net Income	(12,000)	8,560	8,560	8,560	8,560	(1,200)

Data Case

This is your second interview with a prestigious brokerage firm for a job as an equity analyst. You survived the morning interviews with the department manager and the Vice President of Equity. Everything has gone so well that they want to test your ability as an analyst. You are seated in a room with a computer and a list with the names of two companies—Ford (F) and Microsoft (MSFT). You have 90 minutes to complete the following tasks:

- Download each company’s annual income statements, balance sheets, and cash flow statements for the last four fiscal years and export the statements to Excel.
- Find historical stock prices for each firm for the dates of each financial statement. Use the closing stock prices (not the adjusted close). To calculate the firm’s market capitalization at each date, multiply the number of shares outstanding at the time by the firm’s historic stock price.
- For each of the four years of statements, compute the following ratios for each firm:

Valuation Ratios

Price-Earnings Ratio (for EPS use Diluted EPS Total)

Market-to-Book Ratio

Enterprise Value-to-EBITDA

(For debt, include long-term and short-term debt; for cash, include marketable securities.)

Profitability Ratios

Operating Margin

Net Profit Margin

Return on Equity

Financial Strength Ratios

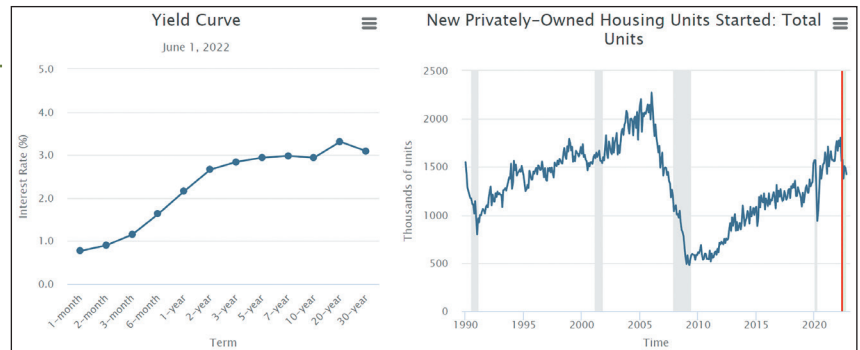
Current Ratio

Engaging with Concepts and Data

Available in both the Sixth Edition eTextbook and MyLab Finance, interactive graphs and tools offer exploration of the current and historical yield curve (and how it moves in relation to other macro data), analysis of common financial statement data and valuation metrics across firms and industries, a compound interest calculator, use of an annuity calculator with an amortization table, a Modigliani and Miller WACC tool, and an efficient frontier portfolio explorer. Instructors also can link to these tools with pre-populated default values for efficient use in the classroom.

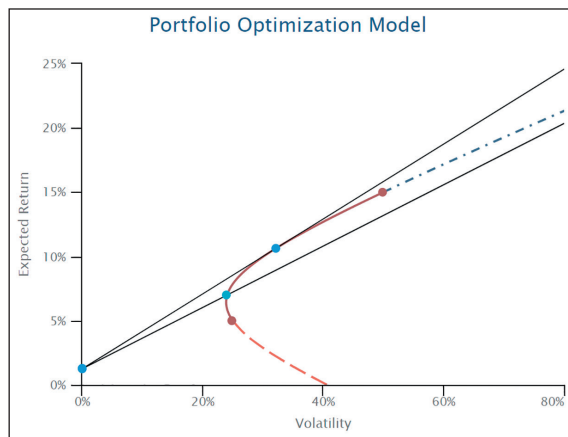
Yield Curve Tool

See the history of the U.S. yield curve (back to 1990) and animate its evolution along with important macroeconomic data including GDP growth, inflation, housing starts, home prices, corporate investment, bond spreads, and the S&P 500 index.



Annuity Calculator

An interactive annuity calculator allows students to solve standard time value of money problems and track the corresponding account balance over time. Students can also toggle to see the discounted cash flow solution and the corresponding Excel formula. (See further description in box on page 161 in Chapter 4.)

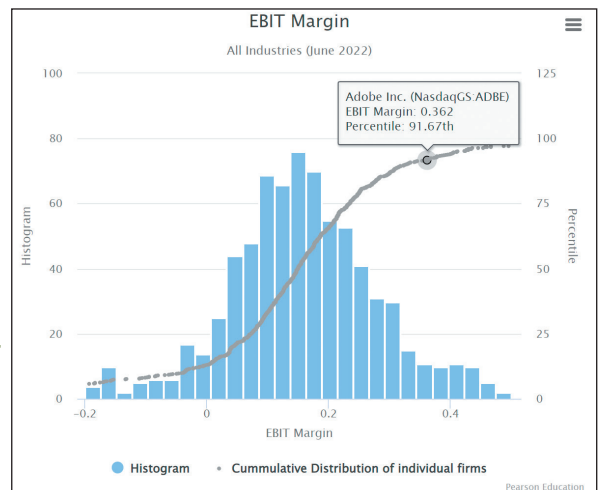


Portfolio Optimizer

The portfolio optimizer tool allows students to explore two-stock portfolios including short-sales and risk-free borrowing and lending, providing an interactive visualization of the two-fund separation that is the foundation for understanding risk and return.

Corporate Data Analysis

The data analysis tool illustrates the current distribution of standard accounting margins and ratios, as well as key leverage and valuation measures, for U.S. stocks by size and industry.



About the Authors

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

Professor Berk's research interests in finance include corporate valuation, capital structure, mutual funds, asset pricing, experimental economics, and labor economics. His work has won a number of research awards including the Stephen A. Ross Prize in Financial Economics, TIAA-CREF Paul A. Samuelson Award, the Smith Breeden Prize, Best Paper of the Year in *The Review of Financial Studies*, and the FAME Research Prize. His paper, "A Critique of Size-Related Anomalies," was selected as one of the two best papers ever published in *The Review of Financial Studies*. In recognition of his influence on the practice of finance he has received

the Bernstein-Fabozzi/Jacobs Levy Award, the Graham and Dodd Award of Excellence, and the Roger F. Murray Prize. He served two terms as an Associate Editor of the *Journal of Finance*, and a term as a director of the American Finance Association, the Western Finance Association, and academic director of the Financial Management Association. He is a Fellow of the Financial Management Association and a member of the advisory board of the *Journal of Portfolio Management*.

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



Peter DeMarzo and Jonathan Berk shortly before the first edition was published.

Peter DeMarzo is the John G. McDonald Professor of Finance at the Graduate School of Business, Stanford University, and Faculty Director of Stanford LEAD. He is the former President of the American Finance Association and a Research Associate at the National Bureau of

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

Professor DeMarzo was born in Whitestone, New York. He and his family enjoy hiking, biking, and skiing.

Preface

THE WORLD HAS CHANGED DRAMATICALLY since we first sat down together and conceived of this book. We have now published 6 editions and reached millions of students worldwide. We were originally motivated to write this textbook by a central insight: The core concepts in finance are simple and intuitive. What makes the subject challenging is that it is often difficult for a novice to distinguish between these core ideas and other intuitively appealing approaches that, if used in financial decision making, will lead to incorrect decisions. In this regard, nothing has changed in the intervening years. De-emphasizing the core concepts that underlie finance strips students of the essential intellectual tools they need to differentiate between good and bad decision making. The book's continued success is a testament to the value of this approach.

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

New to This Edition

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

- Broadened the Global Financial Crisis boxes to be about Finance in Times of Disruption and included discussion of the COVID-19 pandemic.
- Developed interactive graphs and tools for the eTextbook, including an interactive exploration of the historical yield curve, a tool to analyze common financial statement data and ratios across firms and industries, an annuity calculator with an amortization table, a Modigliani and Miller WACC tool, and an efficient frontier portfolio explorer.
- Enhanced discussion of stakeholder and ESG concerns in Chapter 1 to put them in the context of the shareholder value maximization goal.
- Updated discussion of accounting scandals (Chapter 2) and cryptocurrency and stock price bubbles (Chapter 9).
- Added a new section on SPACs in Chapter 23 as an alternative to IPOs.
- Updated the coverage of leasing to reflect accounting treatment changes in Chapter 25 on Leasing.
- Updated and added new interviews: Fahmi Quadi on the role of short sellers, Adena Friedman on the ongoing evolution of stock exchanges, Kenneth Frazier on real options analysis at Merck, and Sally Johnson on managing international risk.
- Incorporated new and/or revised features throughout, including Common Mistakes, Finance in Times of Disruption, Nobel Prize, and General Interest boxes, as well as Examples.
- Revised and redesigned the data cases so that they will be more robust to changes in available data sources. Revised problems, once again personally writing and solving each one.
- Updated tables and figures to reflect current data.

The Law of One Price as a Unifying Principle of Valuation

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

Table of Contents Overview

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

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

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

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

Chapter	Highlights and Changes
1 The Corporation and Financial Markets	Introduces the corporation and its governance, financial markets, and financial intermediation; updated discussion of ESG and stakeholder considerations in the context of shareholder value maximization; new interview with Nasdaq CEO Adena Friedman.
2 Introduction to Financial Statement Analysis	Introduces key financial statements; coverage of financial ratios is centralized to prepare students to analyze financial statements holistically. The eTextbook includes an interactive data analyzer for common financial statement information and ratios. Updated discussion of financial scandals.
3 Financial Decision Making and the Law of One Price	Introduces the Law of One Price and net present value as the basis of the book's unifying framework.
4 The Time Value of Money	Introduces the mechanics of discounting with applications to personal finance; Using Excel boxes familiarizes students with spreadsheet functionality. The eTextbook includes extensive use of the new interactive annuity calculator.
5 Interest Rates	Discusses key determinants of interest rates and their relation to the cost of capital; Interview with Janet L. Yellen, current U.S. Treasury Secretary and former Chair of the Board of Governors of the Federal Reserve System.
6 Valuing Bonds	Analyzes bond prices and yields, as well as the risk of fixed-income securities as illustrated by the sovereign debt crisis and the COVID-19 pandemic; expanded Finance in Times of Disruption box on negative bond yields; Data Case on corporate yield curves and case study on sovereign default.
7 Investment Decision Rules	Introduces the NPV rule as the “golden rule” against which we evaluate other investment decision rules; introduces the use of Data Tables for sensitivity analysis.

Chapter	Highlights and Changes
8 Fundamentals of Capital Budgeting	Provides a clear focus on the distinction between earnings and free cash flow, and shows how to build a financial model to assess the NPV of an investment decision (including tips on using Excel); Common Mistake box on corporate tax rates and investment; updates to align with corporate tax changes.
9 Valuing Stocks	Provides a unifying treatment of projects within the firm and the valuation of the firm as a whole; updated box on cryptocurrencies and financial bubbles; new interview with Fahmi Quadir on the role of short sellers.
10 Capital Markets and the Pricing of Risk	Establishes the intuition for understanding risk and return, explains the distinction between diversifiable and systematic risk, and introduces beta and the CAPM; extensive data updates throughout to reflect current market conditions.
11 Optimal Portfolio Choice and the Capital Asset Pricing Model	Presents the CAPM and develops the details of mean-variance portfolio optimization; interview with Anne Martin, Wesleyan University Chief Investment Officer; updated examples and Data Case.
12 Estimating the Cost of Capital	Demonstrates the practical details of estimating the cost of capital for equity, debt, or a project, and introduces asset betas, and the unlevered and weighted-average cost of capital; Using Excel box on estimating beta.
13 Investor Behavior and Capital Market Efficiency	Examines the role of behavioral finance and ties investor behavior to the topic of market efficiency and alternative models of risk and return; expanded discussion of fund manager performance; Nobel Prize box on Behavioral Finance; discussion of “Smart Beta”.
14 Capital Structure in a Perfect Market	Presents Modigliani and Miller’s results and introduces the market value balance sheet, discussion of important leverage fallacies with application to bank capital regulation.
15 Debt and Taxes	Analyzes the tax benefits of leverage, including the debt tax shield and the after-tax WACC; Common Mistake box on retirement investing; updates to align with corporate tax changes.
16 Financial Distress, Managerial Incentives, and Information	Examines the role of asymmetric information and introduces agency costs including debt overhang and leverage ratchet effects; Nobel Prize boxes on asymmetric information and adverse selection, and bank runs and default.
17 Payout Policy	Considers alternative payout policies including dividends and share repurchases; analyzes the role of market imperfections in determining the firm’s payout policy; updated discussion of corporate cash retention.
18 Capital Budgeting and Valuation with Leverage	Develops in depth the three main methods for capital budgeting with leverage and market imperfections: the weighted average cost of capital (WACC) method, the adjusted present value (APV) method, and the flow-to-equity (FTE) method; appendix explains the relation between DCF and residual income valuation methods.
19 Valuation and Financial Modeling: A Case Study	Builds a financial model for a leveraged acquisition; Using Excel box “Summarizing Model Outputs”.
20 Financial Options	Introduces the concept of financial options, how they are used and exercised; demonstrates how corporate securities may be interpreted using options.
21 Option Valuation	Develops the binomial, Black-Scholes, and risk-neutral pricing methods for option pricing.
22 Real Options	Analyzes real options using decision tree and Black-Scholes methods, and considers the optimal staging of investment; discussion of decision tree methodology with examples; new interview with Kenneth Frazier on real options in drug development at Merck.
23 Raising Equity Capital	Overview of the stages of equity financing, from angel financing and venture capital to IPO to seasoned equity offerings; venture capital financing including common deal terms and protections as well as an illustration of typical funding patterns and success rates; new section on SPACs with examples.

Chapter	Highlights and Changes
24 Debt Financing	Overview of debt financing, including a discussion of asset-backed securities and their role in the financial crisis.
25 Leasing	Introduces leasing as an alternative form of levered financing; update on new FASB rules for lease accounting; new examples and discussion of potential benefits of leasing.
26 Working Capital Management	Introduces the Cash Conversion Cycle and methods for managing working capital; new Finance in Times of Disruption box on supply chain disruptions during COVID-19.
27 Short-Term Financial Planning	Develops methods for forecasting and managing short-term cash needs.
28 Mergers and Acquisitions	Considers motives and methods for mergers and acquisitions, including leveraged buyouts; expanded discussion of valuation and premiums paid.
29 Corporate Governance	Evaluates direct monitoring, compensation policies, and regulation as methods to manage agency conflicts within the firm; addresses impact of Dodd-Frank Act; discussion of shareholder activism and its recent impact on corporate governance; Common Mistake box on celebrity boards.
30 Risk Management	Analyzes the methods and motives for the use of insurance, commodity futures, currency forwards and options, and interest rate swaps to hedge risk.
31 International Corporate Finance	Analyzes the valuation of projects with foreign currency cash flows with integrated or segregated capital markets; updates to align with corporate tax changes; new interview with Sally Johnson on managing international risks.

Acknowledgments

With six editions now behind us, we are heartened by the book's success and its impact on the profession by shaping future practitioners. As any textbook writer will tell you, achieving this level of success requires a substantial amount of help. First and foremost we thank Donna Battista, whose leadership, talent, and market savvy are imprinted on all aspects of the project and are central to its more than 14 years of success; Denise Clinton, a friend and a leader in fact not just in name, whose experience and knowledge were indispensable in the earliest stages; Rebecca Ferris-Caruso, for her unparalleled expertise in managing the complex writing, reviewing, and editing processes and patience in keeping us on track—it is impossible to imagine writing the first edition without her; Jami Minard, for spearheading marketing efforts; Emily Biberger, for her energy and fresh perspective as our editor; Miguel Leonarte, for his central role on MyLab Finance; and Tristann Jones for getting the book from draft pages into print. We were blessed to be approached by the best publisher in the business and we are both truly thankful for the indispensable help provided by these and other professionals, including Meredith Gertz, Melissa Honig, Noel Lotz, and Latoya Douse.

Updating a textbook like ours requires a lot of painstaking work, and there are many who have provided insights and input along the way. We would especially like to call out Jared Stanfield for his important contributions and suggestions throughout. We're also appreciative of Marlene Bellamy's work conducting the lively interviews that provide a critically important perspective, and to the interviewees who graciously provided their time and insights.

Of course, this sixth edition text is built upon the shoulders of the first five, and we have many to thank for helping us make those early versions a reality. We remain forever grateful for Jennifer Koski's critical insights, belief in this project, and tireless effort, all of which were critical to the first edition. Many of the later, non-core chapters required specific detailed knowledge. Nigel Barradale, Reid Click, Jarrad Harford, and Marianne Plunkert ensured that this knowledge was effectively communicated. Joseph Vu and Vance P. Lesseig contributed their talents to the Concept Check questions and Data Cases, respectively.

Creating a truly error-free text is a challenge we could not have lived up to without our team of expert error checkers; we owe particular thanks to Sukarnen Suwanto, Siddharth Bellur, Robert James, Anand Goel, Ian Drummond Gow, Janet Payne, Mike Casey, and Jared Stanfield. Thomas Gilbert and Miguel Palacios tirelessly worked examples and problems in the first edition, while providing numerous insights along the way.

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

As a colleague of both of us, Mark Rubinstein inspired us with his passion to get the history of finance right by correctly attributing the important ideas to the people who first enunciated them. We have used his book, *A History of the Theory of Investments: My Annotated Bibliography*, extensively in this text and we, as well as the profession as a whole, owe him a debt of gratitude for taking the time to write it all down.

We could not have written this text if we were not once ourselves students of finance. As any student knows, the key to success is having a great teacher. In our case we are lucky to have been taught and advised by the people who helped create modern finance: Ken Arrow, Darrell Duffie, Mordecai Kurz, Stephen Ross, and Richard Roll. It was from them that we learned the importance of the core principles of finance, including the Law of One Price, on which this book is based. The learning process does not end at graduation and like most people we have had especially influential colleagues and mentors from which we learned a great deal during our careers and we would like to recognize them explicitly here: Mike Fishman, Richard Green, Vasant Naik, Art Raviv, Mark Rubinstein, Joe Williams, and Jeff Zwiebel. We continue to learn from all of our colleagues and we are grateful to all of them. Finally, we would like to thank those with whom we have taught finance classes over the years: Anat Admati, Ming Huang, Dirk Jenter, Robert Korajczyk, Paul Pfleiderer, Sergio Rebelo, Richard Stanton, and Raman Uppal. Their ideas and teaching strategies have without a doubt influenced our own sense of pedagogy and found their way into this text.

Finally, and most importantly, we owe our biggest debt of gratitude to Rebecca Schwartz and Kauai Chun DeMarzo. Little did we (or they) know how much this project would impact our lives, and without their love and support—and especially their patience and understanding—this text could not have been completed. We owe a special thanks to Kauai DeMarzo, for her inspiration and support at the start of this project, and for her willingness to be our in-house editor, contributor, advisor, and overall sounding-board throughout each stage of its development.

Jonathan Berk
Peter DeMarzo

Contributors

We are truly thankful to have had so many manuscript reviewers, class testers, and focus group participants. We list all of these contributors below, but Gordon Bodnar, James Conover, Anand Goel, James Linck, Evgeny Lyandres, Marianne Plunkert, Mark Simonson, and Andy Terry went so far beyond the call of duty that we would like to single them out.

We are very grateful for all comments—both informal and in written evaluations—from Sixth Edition users. We carefully weighed each reviewer suggestion as we sought to streamline the narrative to improve clarity and add relevant new material. The book has benefited enormously for this input.

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