PART ONE BACKGROUND

1 Understanding Investments, 1
An Overall Perspective on Investing, 1
Establishing a Framework for Investing, 3
Some Definitions, 3
A Perspective on Investing, 3
Why Do We Invest?, 3
Take a Portfolio Perspective, 4
The Importance of Studying Investments, 4
The Personal Aspects, 4
Investments As a Profession, 6
Understanding the Investment Decision Process, 8
The Basis of Investment Decisions—Return and Risk, 8
Checking Your Understanding, 12
Structuring the Decision Process, 12
Important Considerations in the Investment Decision-Making Process, 13
The Great Unknown, 13
A Global Perspective, 14
The Importance of the Internet, 15
Individual Investors versus Institutional Investors, 16
Ethics in Investing, 17
Checking Your Understanding, 18
Organizing the Text, 18
Summary, 19
Questions, 19
Spreadsheet Exercises, 20
Checking Your Understanding, 20

2 Investment Alternatives, 22
Organizing Financial Assets, 22
Direct Investing, 23
A Global Perspective, 24
Nonmarketable Financial Assets, 25
Money Market Securities, 26
The Treasury Bill, 26
Money Market Rates, 27
Checking Your Understanding, 28
Capital Market Securities, 28
Fixed-Income Securities, 28
Bonds, 28
Types of Bonds, 31
Government Agency Securities, 33
Returns on Fixed-Income Securities, 40
Checking Your Understanding, 40
Equity Securities, 40
Preferred Stock, 40
Common Stock, 41
Investing Globally in Equities, 45
Checking Your Understanding, 46
Private Equity, 46
Derivative Securities, 47
Options, 47
Futures Contracts, 48
A Final Note, 49
Summary, 49
Questions, 50
Problems, 51
Spreadsheet Exercises, 51
Checking Your Understanding, 53

3 Indirect Investing, 54
Investing Indirectly, 55
What Is an Investment Company?, 56
How Important are Investment Companies to Investors?, 56
Three Major Types of Investment Companies, 57
Closed-End Investment Companies, 57
Exchange-Traded Funds (ETFs), 58
ETFs Versus ETNs, 59
Mutual Funds (Open-End Investment Companies), 60
Checking Your Understanding, 63
Types of Mutual Funds, 63
Money Market Funds, 64
Equity Funds, Bond Funds, and Hybrid Funds, 65
Checking Your Understanding, 69
Net Asset Value per Share, 69
The Details of Indirect Investing, 69
Closed-End Funds, 70
Mutual Funds, 70
Investing in Index Mutual Funds Versus ETFs, 74
Weighting Methods for Index Funds, 74
Checking Your Understanding, 75
Investment Company Performance, 75
Measures of Fund Performance, 75
Morningstar Ratings, 77
Benchmarks, 78
Fund Performance and Expenses, 78
Some Conclusions about Fund Performance, 78
Investing Internationally through Investment Companies, 80
Fund Categories for International Investing, 80
The Future of Indirect Investing, 81
Fund Supermarkets, 81
Hedge Funds, 81
Summary, 82
Questions, 83
Computational Problems, 84
Spreadsheet Exercises, 84
Checking Your Understanding, 86

4 Securities Markets and Market Indexes 87
The Importance of Financial Markets, 87
The Primary Markets, 88
Initial Public Offerings (IPOs), 88
The Investment Banker, 89
A Global Perspective, 91
Checking Your Understanding, 92
The Secondary Markets, 92
U.S. Securities Markets for the Trading of Equities, 92
The New York Stock Exchange, 93
The NASDAQ Stock Market, 94
NYSE Versus NASDAQ, 95
The OTC (Over-the-Counter) Market, 95
BATS, 95
Electronic Communication Networks (ECNs), 96
Foreign Markets, 97
Checking Your Understanding, 97
Stock Market Indexes, 97
The Dow Jones Averages, 98
Standard & Poor’s Stock Price Indexes, 100
Understanding a Capitalization-Weighted Index, 100
NASDAQ Indexes, 101
Other Indexes, 102
Using the Correct Domestic Stock Indexes, 102
Foreign Stock Market Indexes, 103
Checking Your Understanding, 104
Bond Markets, 104
Individual Investors and Bond Trading, 105
Derivatives Markets, 105
The Globalization of Markets, 105
Summary, 105
Questions, 106
Problems, 107
Computational Problems, 108
Spreadsheet Exercises, 108
Checking Your Understanding, 110

5 How Securities are Traded, 111
Introduction, 111
Brokerage Transactions, 112
Brokerage Firms, 112
Brokerage Accounts, 114
How Orders Work, 115
Trading on Today’s Exchanges, 115
Orders in the NASDAQ Stock Market, 116
Modern-Day Trading, 116
Types of Orders, 117
Clearing Procedures, 118
Checking Your Understanding, 119
Investor Protection in the Securities Markets, 119
Government Regulation, 119
Self-Regulation, 121
Other Investor Protections, 122
Checking Your Understanding, 123
Margin, 123
How Margin Accounts can be Used, 124
Margin Requirements and Obligations, 124
Margin Requirements on Other Securities, 126
Some Misconceptions about Margin, 126
Short Sales, 126
Selling Short as an Investor, 129
Checking Your Understanding, 131
Summary, 131
Questions, 132
Problems, 132
Computational Problems, 133
Spreadsheet Exercises, 133
Checking Your Understanding, 134

PART TWO PORTFOLIO AND CAPITAL MARKET THEORY

6 The Returns and Risks from Investing, 135
An Overview, 136
Return, 136
The Two Components of Asset Returns, 136
Measuring Returns, 138
Total Return, 138
Cumulative Wealth Index, 141
A Global Perspective, 142
  International Returns and Currency Risk, 142
Checking Your Understanding, 145
Summary Statistics for Returns, 145
  Arithmetic Mean, 145
  Geometric Mean, 145
  Arithmetic Mean versus Geometric Mean, 147
  Inflation-Adjusted Returns, 148
Checking Your Understanding, 149
Risk, 149
  Sources of Risk, 150
Measuring Risk, 151
  Variance and Standard Deviation, 152
  Risk Premiums, 154
Checking Your Understanding, 154
Realized Returns and Risks from Investing, 155
  Total Returns and Standard Deviations for the Major Financial Assets, 155
  Cumulative Wealth Indexes, 156
  Understanding Cumulative Wealth as Investors, 158
Compounding and Discounting, 159
Summary, 159
Questions, 160
Demonstration Problems, 161
Problems, 164
Computational Problems, 165
Spreadsheet Exercises, 166
Checking Your Understanding, 167

7 Portfolio Theory, 169
Dealing with Uncertainty, 169
  Using Probabilities, 170
  Probability Distributions, 170
  Calculating Expected Return for a Security, 172
  Calculating Risk for a Security, 173
Checking Your Understanding, 174
Introduction to Modern Portfolio Theory, 174
Portfolio Return and Risk, 175
  Portfolio Expected Return, 175
  Portfolio Risk, 177
Analyzing Portfolio Risk, 177
  Risk Reduction—The Insurance Principle, 177
  Diversification, 178
Checking Your Understanding, 179
The Components of Portfolio Risk, 179
  Covariance, 179
  The Correlation Coefficient, 180
Checking Your Understanding, 184
Calculating Portfolio Risk, 184
  The Two-Security Case, 184
  The n-Security Case, 187
Checking Your Understanding, 187
Obtaining the Data, 188
  Simplifying the Markowitz Calculations, 188
Summary, 189
Questions, 190
Problems, 192
Computational Problems, 193
Spreadsheet Exercises, 194
Checking Your Understanding, 196

8 Portfolio Selection and Asset Allocation, 197
Building a Portfolio Using Markowitz Principles, 197
  Identify Optimal Risk–Return Combinations, 198
  The Attainable Set of Portfolios, 198
  Selecting an Optimal Portfolio of Risky Assets, 200
The Global Perspective—International Diversification, 201
Some Important Conclusions about the Markowitz Model, 202
Checking Your Understanding, 202
Selecting Optimal Asset Classes—The Asset Allocation Decision, 203
  Asset Allocation and Diversification, 204
  Some Major Asset Classes, 204
  Combining Asset Classes, 207
Asset Allocation and the Individual Investor, 209
  Life-Cycle Analysis, 212
  Other Approaches, 212
Checking Your Understanding, 213
The Impact of Diversification on Risk, 213
  Systematic and Nonsystematic Risk, 214
  How Many Securities are Needed to Fully Diversify?, 215
The Implications of Reducing Risk by Holding Portfolios, 216
Summary, 216
Questions, 217
Problems, 218
Spreadsheet Exercises, 218
Checking Your Understanding, 221
PART THREE COMMON STOCKS: ANALYSIS, VALUATION, AND MANAGEMENT

11 Common Stocks: Analysis and Strategy, 289
   A Global Perspective, 289
   The Impact of the Overall Market on Stocks, 290
   Building Stock Portfolios, 291
   Checking Your Understanding, 292
   The Passive Strategy, 292
      Buy-and-Hold Strategy, 293
      Index Funds, 293
PART FOUR SECURITY ANALYSIS

13 Economy/Market Analysis, 339
Introduction, 339
Taking a Global Perspective, 340
Assessing the Economy, 340
The Business Cycle, 341
Forecasts of the Economy, 344
Checking Your Understanding, 347
The Stock Market and the Economy, 347
The Economy and Stock Market Booms, 348
Economic Slowdowns and Bear Markets, 348
Checking Your Understanding, 349
Understanding the Stock Market, 349
A Model of Aggregate Stock Prices, 349
Checking Your Understanding, 352
Making Market Forecasts, 352
Focus on the Important Variables, 352
Checking Your Understanding, 355
Using the Business Cycle to Make Market Forecasts, 355
The E/P Ratio and the Treasury Bond Yield, 356
Summary, 358
Questions, 359
Problems, 360
Computational Problems, 360
Spreadsheet Exercises, 360
Checking Your Understanding, 361

14 Sector/Industry Analysis, 362
Introduction, 363
What Is an Industry?, 363
Classifying Industries, 364
The NAICS Classification System, 364
Other Industry Classifications, 364
The Importance of Sector/Industry Analysis, 365
Why Sector/Industry Analysis Is Important over the Long Run, 365
Checking Your Understanding, 366
Sector Performance over Shorter Periods, 367
How One Industry Can Have a Major Impact on Investors: The Telecom Industry, 368
Cross-Sectional Volatility Has Increased, 368
Analyzing Sectors/Industries, 369
The Industry Life Cycle, 369
Checking Your Understanding, 371
Qualitative Aspects of Industry Analysis, 371
Using Sector/Industry Analysis as an Investor, 372
Assess the Business Cycle, 372
Review Investment Advisory Services about Industries, 374
15 Company Analysis, 378
Fundamental Analysis, 378
The Accounting Aspects of Earnings, 379
The Financial Statements, 379
Checking Your Understanding, 386
The Problems with EPS, 386
Reported Earnings, 386
Has the Situation Improved?, 387
Checking Your Understanding, 390
Using the Financial Statements to Analyze a Company's FCF, ROE, and EPS, 390
Analyzing Free Cash Flow (FCF), 390
Analyzing Return on Assets (ROA), 391
Analyzing Return on Equity (ROE), 392
The Accounting Determinants of EPS, 393
Estimating the Internal (Sustainable) Growth Rate, 393
Checking Your Understanding, 395
Earnings Estimates, 395
A Forecast of EPS, 395
The Accuracy of Earnings Forecasts, 395
Earnings Surprises, 396
Earnings Guidance, 397
The Earnings Game, 397
Useful Information for Investors about Earnings Estimates, 398
Alternatives to Earnings, 399
The Multiplier, 399
The P/E Ratio, 399
Determinants of the P/E Ratio, 400
Determinants of the P/B Ratio, 400
Determinants of the P/S Ratio, 401
Why Price Multiples Vary among Companies, 401
The PEG Ratio, 402
Fundamental Security Analysis in Practice, 402
Summary, 405
Questions, 406
Problems, 406
Computational Problems, 407
Spreadsheet Exercises, 409
Checking Your Understanding, 411

16 Technical Analysis, 412
Introduction, 412
What Is Technical Analysis?, 413
A Framework for Technical Analysis, 415
Checking Your Understanding, 416
Stock Price and Volume Techniques, 416
The Dow Theory, 416
Charts of Price Patterns, 418
Checking Your Understanding, 422
Moving Averages, 423
Relative Strength, 424
Using the Computer for Technical Analysis, 425
Technical Indicators, 425
Breadth Indicators, 425
Sentiment Indicators, 426
Testing Technical Analysis Strategies, 428
The Ebb and Flow of Technical Analysis, 430
Some Conclusions about Technical Analysis, 430
Summary, 432
Questions, 432
Computational Problems, 433
Checking Your Understanding, 433
18 Bonds: Analysis and Strategy, 463
Why Buy Bonds?, 463
Buying Foreign Bonds, 466
Important Considerations in Managing a Bond Portfolio, 467
Understanding the Bond Market, 467
Global Factors and the U.S. Bond Markets, 467
Checking Your Understanding, 468
Bond Strategies and Techniques, 468
Passive Management Strategies, 468
Buy and Hold, 469
Indexing, 470
Active Management Strategies, 471
Forecasting Changes in Interest Rates, 471
Yield Spread Analysis, 472
Identifying Mispricing among Bonds, 473
New Tools for Individual Investors, 474
Managing Price Volatility, 474
Duration, 475
Checking Your Understanding, 482
Managing Price Volatility, 482
Immunization, 482
Summary, 485
Questions, 486
Problems, 487
Computational Problems, 488
Spreadsheet Exercises, 488
Checking Your Understanding, 489

PART SIX DERIVATIVE SECURITIES
19 Options, 490
Why Have Derivative Securities?, 491
Why Options Markets?, 491
Introduction to Options, 491
Long-Term Options, 492
Weekly Options, 492
Understanding Options, 493
Options Terminology, 493
Checking Your Understanding, 493
How Options Work, 494
The Mechanics of Trading, 495
Checking Your Understanding, 497
Payoffs and Profits from Basic Option Positions, 497
Calls, 497
Puts, 499
Some Basic Options Strategies, 502
Covered Calls, 502
Protective Puts, 503
Portfolio Insurance, 504
Checking Your Understanding, 505
Option Valuation, 505
A General Framework, 505
Intrinsic Values and Time Values, 506
Boundaries on Option Prices, 508
The Black–Scholes Model, 510
Put Option Valuation, 513
Summarizing the Factors Affecting Option Prices, 513
Hedge Ratios, 513
Using the Black–Scholes Model, 514
Checking Your Understanding, 514
An Investor’s Perspective on Puts and Calls, 514
What Puts and Calls Mean to Investors, 514
The Evolutionary Use of Options, 515
Stock Index Options, 516
The Basics of Stock Index Options, 516
Strategies with Stock Index Options, 517
The Popularity of Stock Index Options, 519
Summary, 519
Questions, 520
Problems, 520
Computational Problems, 522
Spreadsheet Exercises, 523
Checking Your Understanding, 523

20 Futures Contracts, 525
An Overview of Futures Markets, 525
Why Futures Markets?, 525
What Is Traded in the Futures Markets?, 527
The Structure of Futures Markets, 527
U.S. Futures Exchanges, 527
Foreign Futures Markets, 529
The Clearinghouse, 529
Checking Your Understanding, 530
The Mechanics of Trading, 530
Futures Contracts, 530
Basic Procedures, 531
Margin, 532
Checking Your Understanding, 534
Using Futures Contracts, 534
Hedgers, 534
How to Hedge with Futures, 535
Speculators, 536
Calculating Rate of Return on Futures Contracts, 537
Checking Your Understanding, 537
Financial Futures, 537
Foreign Currency Futures, 538
Interest Rate Futures, 539
Stock-Index Futures, 541
Single Stock Futures, 546
Summary, 547
Questions, 548
Problems, 549
Computational Problems, 549
Checking Your Understanding, 550

PART SEVEN INVESTMENT MANAGEMENT

21 Managing Your Financial Assets, 551

A Perspective on Investing in Financial Assets, 551
Managing Your Financial Assets, 552
Individual Investors Vary Widely, 553
Checking Your Understanding, 553
Formulate an Appropriate Investment Strategy, 553
Investor Objectives, 554
Assessing Your Risk Tolerance, 555
Establishing Your Return Expectations, 555
Checking Your Understanding, 557
What Issues Do Investors Face in Their Financial Planning?, 557
Liquidity Needs, 557
Time Horizon, 557
Tax Considerations, 558
Regulations, 559
Unique Individual Circumstances, 559
Investor Expectations as a Part of Financial Planning, 559
Rate of Return Assumptions, 559
Checking Your Understanding, 562
Implementing Investing Strategies, 562
Asset Allocation, 562
Portfolio Optimization, 564
Basic Investment Management Strategies, 564
Financial Planning on an Ongoing Basis, 565
Tax-Advantaged Investing, 566
Monitoring Market Conditions, 566
Checking Your Understanding, 567
Rebalancing a Portfolio of Financial Assets, 567
Determining the Success of Your Financial Planning, 567
Summary, 568
Questions, 568
Spreadsheet Exercises, 571
Checking Your Understanding, 572

22 Evaluation of Investment Performance, 574

A Framework for Evaluating and Assessing Portfolio Performance, 575
Performance Measurement Issues, 575
Three Questions to Answer in Measuring Portfolio Performance, 576
Return Calculations, 578
Risk Considerations, 580
Checking Your Understanding, 581
Performance Benchmarks and Performance Universes, 581
Performance Universes, 581
Performance Benchmarks, 582
A Straightforward Approach to Performance Evaluation, 582
Risk-Adjusted Measures of Performance, 583
The Sharpe Ratio, 583
Treynor's Reward to Volatility, 585
Checking Your Understanding, 586
Jensen's Alpha, 586
Information Ratio, 588
M2, 589
Sortino Ratio, 590
Checking Your Understanding, 591
Style Analysis and Performance Attribution, 591
Style Analysis, 591
Performance Attribution, 593
Money Managers and Performance Presentations, 593
Checking Your Understanding, 594
An Overview on Performance Evaluation, 594
Summary, 595
Questions, 595
Problems, 597
Computational Problems, 599
Spreadsheet Exercises, 601
Checking Your Understanding, 602

Glossary, 603
Index, 611