Contents

Contributors xv
Preface xxiii
Guide to the Handbook of Finance xxv
Index 931

Volume I

PART 1 Market Players and Markets 1
1. Overview of Financial Instruments and Financial Markets 3
   Frank J. Fabozzi
2. Fundamentals of Investing 9
   Frank J. Fabozzi
3. The American Banking System 17
   R. Philip Giles
   David M. Jones and Ellen J. Rachlin
5. Institutional Aspects of the Securities Markets 37
   James R. Thompson, Edward E. Williams, and M. Chapman Findlay, III
6. Investment Banking 51
   K. Thomas Liu
7. Securities Innovation 61
   John D. Finnerty
8. An Arbitrage Perspective of the Purpose and Structure of Financial Markets 93
   Robert Dubil
9. Complete Markets 107
   Lo Goila
10. Introduction to Islamic Finance 115
    Mahmoud A. El-Gamal

PART 2 Common Stock 123

Cash Instruments
11. The U.S. Equity Markets 125
    Frank J. Jones and Frank J. Fabozzi

12. The Information Content of Short Sales 151
    Steven L. Jones and Glen Larsen
13. Emerging Stock Market Investment 163
    Larry Speidel and Jarrod W. Wilcox

Equity Derivatives
14. Listed Equity Options and Futures 175
    Bruce Collins and Frank J. Fabozzi
15. OTC Equity Derivatives 181
    Bruce Collins and Frank J. Fabozzi
16. Volatility Derivatives 191
    Robert Whaley

PART 3 Fixed Income Instruments 205

Basics
17. Bonds: Investment Features and Risks 207
    Frank J. Fabozzi
18. Residential Mortgages 221
    Frank J. Fabozzi, Anand K. Bhattacharya, and William S. Berliner
19. Reverse Mortgages 231
    Laurie S. Goodm

Nonmortgage Related Fixed Income Securities and Money Market Instruments
20. U.S. Treasury Securities 237
    Frank J. Fabozzi
21. Federal Agency Securities 243
    Frank J. Fabozzi and George P. Kegler
22. Municipal Securities 249
    Frank J. Fabozzi
23. Corporate Fixed Income Securities 259
    Frank J. Fabozzi
24. The Eurobond Market 271
    Moorad Choudhry
## Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>The Euro Government Bond Market</td>
<td>285</td>
</tr>
<tr>
<td></td>
<td>Antonio Villarroya</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>The German Pfandbrief and European Covered Bonds Market</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>Graham “Harry” Cross</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Commercial Paper</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>Moorad Choudhry, Frank J. Fabozzi, and Steven V. Mann</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Money Market Calculations</td>
<td>313</td>
</tr>
<tr>
<td></td>
<td>Steven V. Mann and Frank J. Fabozzi</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Convertible Bonds</td>
<td>319</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi, Steven V. Mann, and Filippo Stefani</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Syndicated Loans</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>Steven Miller</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Emerging Markets Debt</td>
<td>339</td>
</tr>
<tr>
<td></td>
<td>Maria Mednikov Loucks, John A. Penicook, and Uwe Schillinghorn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Structured Products</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Introduction to Mortgage-Backed Securities</td>
<td>347</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi, Anand K. Bhattacharya, and William S. Berliner</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Structuring Collateralized Mortgage Obligations and Interest-Only/Principal-Only Securities</td>
<td>355</td>
</tr>
<tr>
<td></td>
<td>Andrew Davidson, Anthony Sanders, Lan-Ling Wolff, and Anne Ching</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Commercial Mortgage-Backed Securities</td>
<td>367</td>
</tr>
<tr>
<td></td>
<td>James Manzi, Dana Berezina, and Mark Adelson</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Nonmortgage Asset-Backed Securities</td>
<td>375</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi, Laurie S. Goodman, and Douglas J. Lucas</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Synthetic Asset-Backed Securities</td>
<td>385</td>
</tr>
<tr>
<td></td>
<td>Moorad Choudhry</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Catastrophe Bonds</td>
<td>389</td>
</tr>
<tr>
<td></td>
<td>William L. Mesmoe, Beth Starr, Sunita Ganapati, Mark Betik, and Paul Paeo</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Collateralized Debt Obligations</td>
<td>395</td>
</tr>
<tr>
<td></td>
<td>Douglas J. Lucas, Laurie S. Goodman, and Frank J. Fabozzi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed Income and Inflation Derivatives</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Interest Rate Futures and Forward Rate Agreements</td>
<td>411</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi and Steven V. Mann</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Interest Rate Swaps</td>
<td>421</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi and Gerald W. Burrow</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Interest Rate Options and Related Products</td>
<td>427</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi, Steven V. Mann, and Moorad Choudhry</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Introduction to Credit Derivatives</td>
<td>435</td>
</tr>
<tr>
<td></td>
<td>Vinod Kohli</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Fixed Income Total Return Swaps</td>
<td>447</td>
</tr>
<tr>
<td></td>
<td>Mark J. P. Anson, Frank J. Fabozzi, Moorad Choudhry, and Ren-Raw Chen</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Bond Market Transparency</td>
<td>455</td>
</tr>
<tr>
<td></td>
<td>Daniel E. Gallegos and Chris Barr</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Bond Spreads and Relative Value</td>
<td>463</td>
</tr>
<tr>
<td></td>
<td>Moorad Choudhry</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>The Determinants of the Swap Spread and Understanding the LIBOR Term Premium</td>
<td>469</td>
</tr>
<tr>
<td></td>
<td>Moorad Choudhry</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Real Estate Investment</td>
<td>483</td>
</tr>
<tr>
<td></td>
<td>Susan Hudson-Wilson</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Investing in Commercial Real Estate for Individual Investors</td>
<td>495</td>
</tr>
<tr>
<td></td>
<td>G. Timothy Haight and Daniel D. Singer</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Types of Commercial Real Estate</td>
<td>505</td>
</tr>
<tr>
<td></td>
<td>G. Timothy Haight and Daniel D. Singer</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Commercial Real Estate Loans and Securities</td>
<td>515</td>
</tr>
<tr>
<td></td>
<td>Rebecca J. Manning, Douglas J. Lucas, Laurie S. Goodman, and Frank J. Fabozzi</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Commercial Real Estate Derivatives</td>
<td>525</td>
</tr>
<tr>
<td></td>
<td>Jeffrey D. Fisher and Davda Geltner</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Alternative Asset Classes</td>
<td>537</td>
</tr>
<tr>
<td></td>
<td>Mark J. P. Anson</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Hedge Funds</td>
<td>543</td>
</tr>
<tr>
<td></td>
<td>Mark J. P. Anson</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Introduction to Venture Capital</td>
<td>561</td>
</tr>
<tr>
<td></td>
<td>Mark J. P. Anson</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Assessing Hedge Fund Investment Risk in Common Hedge Fund Strategies</td>
<td>575</td>
</tr>
<tr>
<td></td>
<td>Ellen J. Rachlin</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Diversify a Portfolio with Tangible Commodities</td>
<td>585</td>
</tr>
<tr>
<td></td>
<td>Henry G. Jarecki and Verence F. Martell</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>The Fundamentals of Commodity Investments</td>
<td>593</td>
</tr>
<tr>
<td></td>
<td>Frank J. Fabozzi, Roland Fusa, and Dieter G. Kaiser</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Art Finance</td>
<td>605</td>
</tr>
<tr>
<td></td>
<td>Rachel A. J. Campbell</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>Investing in Life Settlements</td>
<td>611</td>
</tr>
<tr>
<td></td>
<td>Anthony F. L. Pecore</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Investment Companies, ETFs, and Life Insurance Products</td>
<td>619</td>
</tr>
<tr>
<td></td>
<td>Frank J. Jones and Frank J. Fabozzi</td>
<td></td>
</tr>
</tbody>
</table>
Volume II

PART 1 Investment Management 1

Foundations

1. Portfolio Selection 3
   Frank J. Fabozzi, Harry M. Markowitz, and Francis Gupta
2. Asset Pricing Models 15
   Frank J. Fabozzi
3. Stochastic Growth and Discretionary Wealth 25
   Jarrod W. Wilcox
   Jarrod W. Wilcox
5. Quantitative Investment Management: Today and Tomorrow 43
   Petter N. Kolm, Sergio M. Focardi, Frank J. Fabozzi, and Donsolara A. Pachamanova

PART 2 Asset Allocation 741

1. Employing Portfolio Selection Models in Practice 147
   Srichander Ramaswamy
2. Mechanics of the Equity Lending Market 757
   Jeff Cohen, David Haushalter, and Adam V. Reed
3. Securities Lending, Liquidity, and Capital Market-Based Finance 761
4. Repurchase Agreements and Dollar Rolls 769
   Frank J. Fabozzi and Steven V. Mann

PART 3 Performance Analysis 781

1. Introduction to Performance Analysis 221
   Noël Amenc, Felix Goltz, Lionel Martellini, and Véronique Le Sourd
2. Evaluating Portfolio Performance: LPM-Based Risk Measures and the Mean-Equivalence Approach 229
   Bankanta Mohra and Mahmoud Rahman
PART 2  Equity Portfolio Management
24. Overview of Active Common Stock Portfolio Strategies
   Frank J. Fabozzi, Sergio M. Focardi, Petter N. Kolm, and Robert R. Johnson
   239
25. Investment Analysis: Profiting from a Complex Equity Market
   Bruce I. Jacobs and Kenneth N. Levy
   249
26. Investment Management: An Architecture for the Equity Market
   Bruce I. Jacobs and Kenneth N. Levy
   259
27. Portfolio Construction with Active Managers: An Integrated Approach
   Vinicius Budhraja, Rui J. P. de Figueiredo, Jr., Janghoon Kim, and Ryan Meredith
   279
28. Quantitative Modeling of Transaction and Trading Costs
   Petter N. Kolm, Frank J. Fabozzi, and Sergio M. Focardi
   289
29. Quantitative Equity Portfolio Management
   Andrew Alford, Robert Jones, and Terrence Lim
   299
30. Growth and Value Investing—Keeping in Style
   Eric H. Sorensen and Frank J. Fabozzi
   309
31. Fundamental Multifactor Equity Risk Models
   Frank J. Fabozzi, Raman Vardharaj, and Frank J. Jones
   319
32. Tracking Error and Common Stock Portfolio Management
   Raman Vardharaj, Frank J. Fabozzi, and Frank J. Jones
   329
33. Long-Short Equity Portfolios
   Bruce I. Jacobs and Kenneth N. Levy
   339
34. A Support Level for Technical Analysis
   Robert A. Schwartz, Reto Francioni, and Bruce W. Weber
   349
35. Volatility and Structure: Building Blocks of Classical Chart Pattern Analysis
   Daniel L. Cheker
   359
36. Incorporating Trading Strategies in the Black-Litterman Framework
   Petter N. Kolm, Sergio M. Focardi, and Frank J. Fabozzi
   369
37. The Blindness of Hindsight in Finance
   Peter L. Bernstein
   379
38. Are Stock Prices Predictable?
   Peter L. Bernstein
   389
39. Dynamic Factor Approaches to Equity Portfolio Management
   Dorsey D. Farr
   399
40. Statistical Arbitrage
   Brian J. Jacobsen
   409
41. The Use of Derivatives in Managing Equity Portfolios
   Roger G. Clarke, Harindra De Silva, and Greg M. McMurrnan
   419

PART 3  Fixed Income Portfolio Management
42. A Valuation Framework for Selecting Option Strategies
   Roger G. Clarke, Harindra De Silva, and Greg M. McMurrnan
   429
43. Bond Portfolio Strategies for Outperforming a Benchmark
   Bilal Baggum and Robert Taucher
   439
44. Fixed Income Portfolio Investing: The Art of Decision Making
   Chris P. Dialynas and Ellen Rachlin
   449
45. Analysis and Evaluation of Corporate Bonds
   Christoph Klein
   459
46. Analyzing and Interpreting the Yield Curve
   Mooral Choudhry
   469
47. Creating an Optimal Portfolio to Fund Pension Liabilities
   Paul Ross, Dan Bernstein, Niall Ferguson, and Ray Dalio
   479
48. Convertible Bond Arbitrage
   Filippo Stefanini
   489
49. Maturity, Capital Structure, and Credit Risk: Important Relationships for Portfolio Managers
   Steven I. Dym
   499
50. A Unified Approach to Interest Rate Risk and Credit Risk of Cash and Derivative Instruments
   Steven I. Dym
   509
51. Swaps for the Modern Investment Manager
   Steven I. Dym
   519
52. Overview of ABS Portfolio Management
   Karen Weaver and Eugene Xu
   529
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>Corporate Strategy and Financial Planning</td>
<td>563</td>
</tr>
<tr>
<td>58</td>
<td>Corporate Governance</td>
<td>583</td>
</tr>
<tr>
<td>59</td>
<td>Measuring the Performance of Corporate Managers</td>
<td>591</td>
</tr>
<tr>
<td>60</td>
<td>Capital Structure Decisions in Corporate Finance</td>
<td>601</td>
</tr>
<tr>
<td>61</td>
<td>Capital Structure: Lessons from Modigliani and Miller</td>
<td>617</td>
</tr>
<tr>
<td>62</td>
<td>Bondholder Value versus Shareholder Value</td>
<td>623</td>
</tr>
<tr>
<td>63</td>
<td>Recapitalization of Troubled Companies</td>
<td>631</td>
</tr>
<tr>
<td>64</td>
<td>Dividend and Dividend Policies</td>
<td>645</td>
</tr>
<tr>
<td>65</td>
<td>The Investment Problem and Capital Budgeting</td>
<td>653</td>
</tr>
<tr>
<td>66</td>
<td>Estimating Cash Flows of Capital Budgeting Projects</td>
<td>659</td>
</tr>
<tr>
<td>67</td>
<td>Capital Budgeting Techniques</td>
<td>671</td>
</tr>
<tr>
<td>68</td>
<td>Capital Budgeting and Risk</td>
<td>685</td>
</tr>
<tr>
<td>69</td>
<td>Real Options</td>
<td>697</td>
</tr>
<tr>
<td>70</td>
<td>Real Options and Modern Capital Investment Decisions</td>
<td>715</td>
</tr>
<tr>
<td>71</td>
<td>Hurdle Rates for Overseas Projects</td>
<td>727</td>
</tr>
<tr>
<td>72</td>
<td>Structured Finance</td>
<td>737</td>
</tr>
<tr>
<td>73</td>
<td>Introduction to Securitization</td>
<td>745</td>
</tr>
<tr>
<td>74</td>
<td>Issuer Prospective in Structuring Asset-Backed Securities Transactions</td>
<td>757</td>
</tr>
<tr>
<td>75</td>
<td>Structuring Efficient Asset-Backed Transactions</td>
<td>765</td>
</tr>
<tr>
<td>76</td>
<td>Funding through the Use of Trade Receivable Secureitizations</td>
<td>779</td>
</tr>
<tr>
<td>77</td>
<td>Operational Issues in Securitization</td>
<td>789</td>
</tr>
<tr>
<td>78</td>
<td>Project Financing</td>
<td>799</td>
</tr>
<tr>
<td>79</td>
<td>The Fundamentals of Equipment Leasing</td>
<td>815</td>
</tr>
<tr>
<td>80</td>
<td>Leveraged Leasing</td>
<td>825</td>
</tr>
<tr>
<td>81</td>
<td>Lease versus Borrow-to-Buy Analysis</td>
<td>837</td>
</tr>
<tr>
<td>82</td>
<td>Basic Treasury Management Concepts</td>
<td>851</td>
</tr>
<tr>
<td>83</td>
<td>Advanced Treasury Management Concepts</td>
<td>861</td>
</tr>
<tr>
<td>84</td>
<td>Management of Accounts Receivable</td>
<td>871</td>
</tr>
<tr>
<td>85</td>
<td>Inventory Management</td>
<td>877</td>
</tr>
<tr>
<td>86</td>
<td>Acquisitions and Takeovers</td>
<td>883</td>
</tr>
<tr>
<td>87</td>
<td>Taking Control of a Company</td>
<td>903</td>
</tr>
<tr>
<td>88</td>
<td>Mergers and Demergers</td>
<td>915</td>
</tr>
<tr>
<td>89</td>
<td>Leveraged Buyouts</td>
<td>925</td>
</tr>
<tr>
<td>90</td>
<td>Risk Management</td>
<td>1</td>
</tr>
<tr>
<td>General Principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Risk and the French Connection</td>
<td>Peter L. Bernstein</td>
</tr>
<tr>
<td>2</td>
<td>Risk: Traditional Finance versus Behavioral Finance</td>
<td>Victor Ricciardi</td>
</tr>
<tr>
<td>3</td>
<td>Overview of Risk Management and Alternative Risk Transfer</td>
<td>39</td>
</tr>
</tbody>
</table>
4. Risk and Risk Management 53
   Christopher L. Culp

5. Risk Management for Asset Management Firms 63
   Noël Amenc, Jean-René Ginaild, Lionel Martellini, and Véronique Le Sourd

6. Catastrophe and Risk 71
   Erik Banks

7. Overview of Enterprise Risk Management 81
   James Lam

Risk Models
8. Model Risk 87
   Kevin Dowd

   Kevin Dowd

10. Risk Measures and Portfolio Selection 101
    Kevin Dowd

11. Statistical Models of Operational Loss 109
    Carol Alexander

12. Risk Management in Freight Markets with Forwards and Options Contracts 129
    Juby George and Radu Tunaru

Fixed Income Risk Management
13. Fixed Income Risk Modeling 137
    Ludovic Breger and Oren Cheyette

14. Effective Duration and Convexity 153
    Gerald W. Buetow, Jr. and Robert R. Johnson

15. Duration Estimation for Bonds and Bond Portfolios 159
    Frank J. Fabozzi

16. Yield Curve Risk Measures 165
    Frank J. Fabozzi

17. Improving Guidelines for Interest Rate and Credit Derivatives 175
    Steven K. Kreider, Scott F. Richard, and Frank J. Fabozzi

18. Modeling Portfolio Credit Risk 183
    Srichander Ramaswamy

    Shravan Kamath

20. Hedging Fixed Income Securities with Interest Rate Swaps 207
    Shravan Kamath

21. Yield Curve Risk Management 215
    Robert R. Reitano

PART 2 Interest Rate Modeling 233
22. The Concept and Measures of Interest Rate Volatility 235
    Alexander Levin

23. Short-Rate Term Structure Models 243
    Alexander Levin

PART 3 Credit Risk Modeling and Analysis 255
24. Credit Risk 257
    Frank J. Fabozzi

25. Credit Risk Modeling Using Structural Models 267
    Mark J.P. Anson, Frank J. Fabozzi, Ren-Raw Chen, and Moorad Choudhry

26. Credit Risk Modeling Using Reduced-Form Models 277
    Mark J.P. Anson, Frank J. Fabozzi, Ren-Raw Chen, and Moorad Choudhry

27. The Credit Analysis of Municipal Bonds 287
    Sylvan G. Feldstein and Frank Fabozzi

PART 4 Valuation 301

Equity Valuation
28. Introduction to Valuation 303
    Ananth Damodaran

    Glen A. Larsen, Jr.

30. Applied Equity Valuation: Relative Valuation Method 321
    Glen A. Larsen, Jr.

31. Dividend Discount Models 329
    Pamela P. Drake and Frank J. Fabozzi

32. Equity Analysis Using Traditional and Value-Based Metrics 339
    Frank J. Fabozzi and James L. Grant

33. The Franchise Factor Approach to Firm Valuation 359
    Martin L. Leibowitz and Stanley Kogelman

34. IPO Valuation 375
    Kunata Pukthuanthong-Le

35. The Valuation of Private Firms 383
    Stanley Jay Feldman

Valuing Fixed Income Securities
36. General Principles of Bond Valuation 399
    Frank J. Fabozzi and Steven V. Mann

37. Yield Curves and Valuation Lattices 411
    Frank J. Fabozzi, Andrew Kalotay, and Michael Dorignan

38. Using the Lattice Model to Value Bonds with Embedded Options, Floaters, Options, and Caps/Floors 417
    Frank J. Fabozzi, Andrew Kalotay, and Michael Dorignan

39. Valuing Mortgage-Backed and Asset-Backed Securities 429
    Frank J. Fabozzi
CONTENTS

40. A Framework for Valuing Treasury Inflation-Protected Securities 439
Priya Misra, Kodjo Apedjinou, and Anshul Pradhan

41. Quantitative Models to Value Convertible Bonds 445
Filippo Stefanini

Derivatives Valuation

42. Introduction to the Pricing of Futures/Forwards and Options 451
Frank J. Fabozzi

43. Black-Scholes Option Pricing Model 459
Svetlozar T. Rachev, Christian Menn, and Frank J. Fabozzi

44. Valuing a Plain Vanilla Swap 467
Gerald W. Buetow and Frank J. Fabozzi

45. Valuing Swaptions 477
Frank J. Fabozzi and Gerald W. Buetow

46. Pricing Options on Interest Rate Instruments 495
Rado Tunaru and Brian Eades

47. Credit Default Swaps Valuation 507
Ren-Raw Chen, Frank J. Fabozzi, and Dominic O’Kane

48. The Valuation of Fixed Income Total Return Swaps 519
Ren-Raw Chen and Frank J. Fabozzi

49. Valuing Inflation Derivatives 523
Jeroen Kerkhof

Valuing Commodity, Foreign Exchange, and Real Estate Products

50. The Pricing and Economics of Commodity Futures 535
Mark J. P. Anson

51. Introduction to Currency Option Pricing Models 545
Shani Shamah

52. Pricing Commercial Real Estate Derivatives 557
David Cutler and Jeffrey D. Fisher

PART 5 Mathematical Tools and Techniques for Financial Modeling and Analysis

Basic Tools and Analysis

53. Cash-Flow Analysis 569
Pamela P. Drake and Frank J. Fabozzi

54. Financial Ratio Analysis 581
Pamela P. Drake and Frank J. Fabozzi

55. Mathematics of Finance 597
Pamela P. Drake and Frank J. Fabozzi

56. Calculating Investment Returns 617
Bruce J. Feibel

Statistical Tools

57. Basic Data Description for Financial Modeling and Analysis 633
Markus Hoechstetter, Svetlozar T. Rachev, and Frank J. Fabozzi

58. Elementary Statistics 645
Robert Whaley

59. Regression Analysis 669
Svetlozar T. Rachev, Stefan Mittnik, Frank J. Fabozzi, Sergio Focardi, and Tze Janic

60. ARCH/GARCH Models in Applied Financial Econometrics 689
Robert F. Engle, Sergio M. Focardi, and Frank J. Fabozzi

61. Cointegration and Its Application in Finance 701
Bala Arshanapalli and William Nelson

62. Moving Average Models for Volatility and Correlation, and Covariance Matrices 711
Carol Alexander

63. Introduction to Stochastic Processes 725
Svetlozar T. Rachev, Christian Menn, and Frank J. Fabozzi

64. Bayesian Probability for Investors 739
Jarrod W. Wilcox

Optimization and Simulation Tools

65. Monte Carlo Simulation in Finance 751
Dessislava A. Pachamanova

66. Principles of Optimization for Portfolio Selection 763
Stoyan V. Stoyanov, Svetlozar T. Rachev, and Frank J. Fabozzi

67. Introduction to Stochastic Programming and Its Applications to Finance 775
Korny D. Simek

68. Robust Portfolio Optimization 785
Dessislava A. Pachamanova, Petter N. Kolm, Frank J. Fabozzi, and Sergio M. Focardi