

# HANDBOOK OF FINANCE

VOLUME I

Financial Markets  
and Instruments

Frank J. Fabozzi



WILEY &

John Wiley & Sons, Inc.

# Contents

Contributors	xv		
Preface	xxiii		
<b>Guide to the <i>Handbook of Finance</i></b>	<b>xxv</b>		
Index	779		
<b>Volume I</b>			
<b>PART 1 Market Players and Markets</b>	<b>1</b>		
1. Overview of Financial Instruments and Financial Markets <i>Frank J. Fabozzi</i>	3		
2. Fundamentals of Investing <i>Frank J. Fabozzi</i>	9		
3. The American Banking System <i>R. Philip Giles</i>	17		
4. Monetary Policy: How the Fed Sets, Implements, and Measures Policy Choices <i>David M. Jones and Ellen J. Rachlin</i>	29		
5. Institutional Aspects of the Securities Markets <i>James R. Thompson, Edward E. Williams, and M. Chapman Findlay, III</i>	37		
6. Investment Banking <i>K. Thomas Liaw</i>	51		
7. Securities Innovation <i>John D. Finnerty</i>	61		
8. An Arbitrage Perspective of the Purpose and Structure of Financial Markets <i>Robert Dubil</i>	93		
9. Complete Markets <i>Les Gulko</i>	107		
10. Introduction to Islamic Finance  <i>Mahmoud A. El-Gamal</i>	115		
<b>PART 2 Common Stock</b>	<b>123</b>	*	
<b>Cash Instruments</b>			
11. The U.S. Equity Markets <i>Frank J. Jones and Frank J. Fabozzi</i>	125		
12. The Information Content of Short Sales <i>Steven L. Jones and Glen Larsen</i>	151		
13. Emerging Stock Market Investment <i>Larry Speidell and Jarrod W. Wilcox</i>	163		
<b>Equity Derivatives</b>			
14. Listed Equity Options and Futures <i>Bruce Collins and Frank J. Fabozzi</i>	175		
15. OTC Equity Derivatives <i>Bruce Collins and Frank J. Fabozzi</i>	181		
16. Volatility Derivatives <i>Robert Whaley</i>	191		
<b>PART 3 Fixed Income Instruments</b>	<b>205</b>		
<b>Basics</b>			
17. Bonds: Investment Features and Risks <i>Frank J. Fabozzi</i>	207		
18. Residential Mortgages <i>Frank J. Fabozzi, Anand K. Bhattacharya, and William S. Berliner</i>	221		
19. Reverse Mortgages <i>Laurie S. Goodman</i>	231		
<b>Nonmortgage Related Fixed Income Securities and Money Market Instruments</b>			
20. U.S. Treasury Securities <i>Frank J. Fabozzi</i>	237		
21. Federal Agency Securities <i>Frank J. Fabozzi and George P. Kegler</i>	243		
22. Municipal Securities <i>Frank J. Fabozzi</i>	249		
23. Corporate Fixed Income Securities <i>Frank J. Fabozzi</i>	259		
24. The Eurobond Market <i>Moorad Choudhry</i>	271		

25. The Euro Government Bond Market <i>Antonio Villarroya</i>	285	43. Fixed Income Total Return Swaps <i>Mark J.P. Anson, Frank J. Fabozzi, Moorad Choudhry, and Ren-Raw Chen</i>	447
26. The German Pfandbrief and European Covered Bonds Market <i>Graham "Harry" Cross</i>	295		
27. Commercial Paper <i>Moorad Choudhry, Frank J. Fabozzi, and Steven V. Mann</i>	305	<b>Bond Market</b>	
28. Money Market Calculations <i>Steven V. Mann and Frank J. Fabozzi</i>	313	44. Bond Market Transparency <i>Daniel E. Gallegos and Chris Ban</i>	455
29. Convertible Bonds <i>Frank J. Fabozzi, Steven V. Mann, and Filippo Stefanini</i>	319	45. Bond Spreads and Relative Value <i>Moorad Choudhry</i>	463
30. Syndicated Loans <i>Steven Miller</i>	325	46. The Determinants of the Swap Spread and Understanding the LIBOR Term Premium <i>Moorad Choudhry</i>	469
31. Emerging Markets Debt <i>Maria Mednikov Loucks, John A. Penicook, and Uwe Schillhorn</i>	339	<b>PART 4 Real Estate</b>	481
		47. Real Estate Investment <i>Susan Hudson-Wilson</i>	483
<b>Structured Products</b>		48. Investing in Commercial Real Estate for Individual Investors <i>G. Timothy Haight and Daniel D. Singer</i>	495
32. Introduction to Mortgage-Backed Securities <i>Frank J. Fabozzi, Anand.K. Bhattacharya, and William S. Berliner</i>	347	49. Types of Commercial Real Estate <i>G. Timothy Haight and Daniel D. Singer</i>	505
33. Structuring Collateralized Mortgage Obligations and Interest-Only/Principal-Only Securities <i>Andrew Davidson, Anthony Sanders, Lan-Ling Wolff, and Anne Ching</i>	355	50. Commercial Real Estate Loans and Securities <i>Rebecca J. Manning, Douglas J. Lucas, Laurie S'. Goodman, and Frank J. Fabozzi</i>	515
34. Commercial Mortgage-Backed Securities <i>James Manzi, Diana Berezina, and Mark Adelson</i>	367	51. Commercial Real Estate Derivatives <i>Jeffrey D. Fisher and David Geltner</i>	525
35. Nonmortgage Asset-Backed Securities <i>Frank J. Fabozzi, Laurie S. Goodman, and Douglas J. Lucas</i>	375	<b>PART 5 Alternative Investments</b>	535
36. Synthetic Asset-Backed Securities <i>Moorad Choudhry</i>	385	52. Alternative Asset Classes <i>Mark J. P.-Anson</i>	537
37. Catastrophe Bonds <i>William L. Messmore, Beth Starr, Sunita Ganapati, Mark Retik, and Paul Puleo</i>	389	53. Hedge Funds <i>Mark J. P. Anson</i>	543
38. Collateralized Debt Obligations <i>Douglas J. Lucas, Laurie S. Goodman, and Frank J. Fabozzi</i>	395	54. Introduction to Venture Capital <i>Mark J. P. Anson</i>	561
		55. Assessing Hedge Fund Investment Risk in Common Hedge Fund Strategies <i>Ellen J. Rachlin</i>	575
<b>Fixed Income and Inflation Derivatives</b>		56. Diversify a Portfolio with Tangible Commodities <i>Henry G. Jarecki and Terrence F. Martell</i>	585
39. Interest Rate Futures and Forward Rate Agreements <i>Frank J. Fabozzi and Steven V. Mann</i>	411	57. The Fundamentals of Commodity Investments <i>Frank J. Fabozzi, Roland Fiiss, and Dieter G. Kaiser</i>	593
40. Interest Rate Swaps <i>Frank J. Fabozzi and Gerald W. Buetow</i>	421	58. Art Finance <i>Rachel A. J. Campbell</i>	605
41. Interest Rate Options and Related Products <i>Frank J. Fabozzi, Steven V. Mann, and Moorad Choudhry</i>	427	59. Investing in Life Settlements <i>Anthony F. L. Pecore</i>	611
42. Introduction to Credit Derivatives <i>Vinod Kothari</i>	435	<b>PART 6 Investment Companies, ETFs, and Life Insurance Products</b>	619
		60. Investment Companies <i>Frank J. Jones and Frank J. Fabozzi</i>	621

61. Exchange-Traded Funds <i>Gary L. Gastineau</i>	633	6. Actuaries' Evaluation of the Utility of Financial Economics <i>Shane Whelan</i>	53
62. Investment-Oriented Life Insurance <i>Frank J. Jones</i>	643	7. Investment Beliefs <i>Donald M. Raymond</i>	65
63. Stable Value Investment Options for Defined Contribution Plans <i>Brian K. Haendiges</i>	657	8. Behavioral Finance <i>Jarrold W. Wilcox</i>	71
PART 7 Foreign Exchange	675	9. What Is Behavioral Finance? <i>Meir Statman</i>	79
64. An Introduction to Spot Foreign Exchange <i>Shani Shamah</i>	677	10. The Psychology of Risk: The Behavioral Finance Perspective <i>Victor Ricciardi</i>	85
65. An Introduction to Foreign Exchange Derivatives <i>Shani Shamah</i>	687	11. Investment Strategy for the Long Term <i>William F. Sharpe</i>	113
66. Introduction to Foreign Exchange Options <i>Shani Shamah</i>	701	12. Implementing Investment Strategies: The Art and Science of Investing <i>Wayne H. Wagner and Mark Edwards</i>	117
PART 8 Inflation-Hedging Products	715	13. Investment Management for Taxable Investors <i>David M. Stein and James P. Garland</i>	127
67. Inflation-Linked Bonds <i>P. Brett Hammond</i>	717	14. Socially Responsible Investment <i>Russell Sparkes</i>	137
68. Introduction to Inflation Derivatives <i>Jeroen Kerkhof</i>	729	Asset Allocation	
PART 9 Securities Finance	741	15. Employing Portfolio Selection Models in Practice <i>Srichander Ramaswamy</i>	147
69. An Introduction to Securities Lending <i>Mark C. Faulkner</i>	743	16. Asset Allocation and Portfolio Construction <i>Noel Amenc, Felix Goltz, Lionel Martellini, and Veronique Le Sourd</i>	159
70. Mechanics of the Equity Lending Market <i>Jeff Cohen, David Haushalter, and Adam V. Reed</i>	757	17. Asset Allocation Barbells <i>Kuntara Pukthuanthong-Le and Lee R. Thomas III</i>	165
71. Securities Lending, Liquidity, and Capital Market-Based Finance	761	18. The Fallacy of Portable Alpha <i>Mark P. Kritzman with the assistance of Paul A. • Samuelson</i>	171
72. Repurchase Agreements and Dollar Rolls <i>Frank J. Fabozzi and Steven V. Mann</i>	769	19. Currency Overlay <i>Bernd Scherer</i>	177
Volume II		Portfolio Construction	
PART 1 Investment Management	1	20. Risk Assessment and Portfolio Construction <i>Jarrold W. Wilcox</i>	187
Foundations		21. Risk Budgeting <i>Alexandre Schutel Da Silva, Wai Lee, and Bobby • Pornrojngkool</i>	195
1. Portfolio Selection <i>Frank J. Fabozzi, Harry M. Markowitz, and Francis Gupta</i>	3	Performance Analysis	
2. Asset Pricing Models <i>Frank J. Fabozzi</i>	15	22. Introduction to Performance Analysis <i>Noel Amenc, Felix Goltz, Lionel Martellini, and Veronique Le Sourd</i>	221
3. Stochastic Growth and Discretionary Wealth <i>Jarrold W. Wilcox</i>	25	23. Evaluating Portfolio Performance: LPM-Based Risk Measures and the Mean-Equivalence Approach <i>Banikanla Mishra and Mahmud Rahman</i>	229
4. Why Quantitative Investment Management? <i>Jarrold W. Wilcox</i>	35		
5. Quantitative Investment Management: Today and Tomorrow <i>Petter N. Kolm, Sergio M. Focardi, Frank J. Fabozzi, and Dessislava A. Pachamanova</i>	43		

<b>PART 2 Equity Portfolio Management</b>	<b>237</b>		
24. Overview of Active Common Stock Portfolio Strategies	239		
<i>Frank J. Fabozzi, Sergio M. Focardi, Fetter N. Kolm, and Robert R. Johnson</i>			
25. Investment Analysis: Profiting from a Complex Equity Market	249		
<i>Bruce I. Jacobs and Kenneth N. Levy</i>			
26. Investment Management: An Architecture for the Equity Market	259		
<i>Bruce I. Jacobs and Kenneth N. Levy</i>			
27. Portfolio Construction with Active Managers: An Integrated Approach	271		
<i>Vineet Budhraj, Rui J. P. de Figueiredo, Jr, Janghoon Kim, and Ryan Meredith</i>			
28. Quantitative Modeling of Transaction and Trading Costs	283		
<i>Petter N. Kolm, Frank J. Fabozzi, and Sergio M. Focardi</i>			
29. Quantitative Equity Portfolio Management	289		
<i>Andrew Alford, Robert Jones, and Terrence Lint</i>			
30. Growth and Value Investing—Keeping in Style	299		
<i>Eric H. Sorensen and Frank J. Fabozzi</i>			
31. Fundamental Multifactor Equity Risk Models	307		
<i>Frank J. Fabozzi, Raman Vardharaj, and Frank J. Jones</i>			
32. Tracking Error and Common Stock Portfolio Management	319		
<i>Raman Vardharaj, Frank J. Fabozzi, and Frank J. Jones</i>			
33. Long-Short Equity Portfolios	325		
<i>Bruce I. Jacobs and Kenneth N. Levy</i>			
34. A Support Level for Technical Analysis	335		
<i>Robert A. Schwartz, Reto Francioni, and Bruce W. Weber</i>			
35. Volatility and Structure: Building Blocks of Classical Chart Pattern Analysis	347		
<i>Daniel L. Chester</i>			
36. Incorporating Trading Strategies in the Black-Litterman Framework	359		
<i>Petter N. Kolm, Sergio M. Focardi, and Frank J. Fabozzi</i>			
37. The Blindness of Hindsight in Finance	369		
<i>Peter L. Bernstein</i>			
38. Are Stock Prices Predictable?	373		
<i>Peter L. Bernstein</i>			
39. Dynamic Factor Approaches to Equity Portfolio Management	381		
<i>Dorsey D. Fan</i>			
40. Statistical Arbitrage	393	*	
<i>Brian J. Jacobsen</i>			
41. The Use of Derivatives in Managing Equity Portfolios	399		
<i>Roger G. Clarke, Harindra De Silva and Greg M. McMurran</i>			
			42; A Valuation Framework for Selecting Option Strategies 413
			<i>Roger G. Clarke, Harindra De Silva, and Greg M. McMurran</i>
		<b>PART 3 Fixed Income Portfolio Management</b>	<b>419</b>
		43. Bond Portfolio Strategies for Outperforming a Benchmark	421
		<i>Bu'lent Baygu'n and Robert Tzucker</i>	
		44. Fixed Income Portfolio Investing: The Art of Decision Making	431
		<i>Chris P. Dialynas and Ellen Rachlin</i>	
		45. Analysis and Evaluation of Corporate Bonds	447
		<i>Christoph Klein</i>	
		46. Analyzing and Interpreting the Yield Curve	455
		<i>Moorad Choudhry</i>	
		47. Creating an Optimal Portfolio to Fund Pension Liabilities	463
		<i>Paul Ross, Dan Bernstein, Niall Ferguson, and Ray Dalio-</i>	
		48. Convertible Bond Arbitrage	485
		<i>Filippo Stefanini</i>	
		49. Maturity, Capital Structure, and Credit Risk: Important Relationships for Portfolio Managers	493
		<i>Steven I. Dym</i>	
		50. A Unified Approach to Interest Rate Risk and Credit Risk of Cash and Derivative Instruments	499
		<i>Steven I. Dym</i>	
		51. Swaps for the Modern Investment Manager	507
		<i>Steven I. Dym</i>	
		52. Overview of ABS Portfolio Management	513
		<i>Karen Weaver and Eugene Xu</i>	
		<b>PART 4 Alternative Investments</b>	<b>521</b>
		53. Integrating Alternative Investments into the Asset Allocation Process	523
		<i>Vineet Budhraj, Rui J. P. de Figueiredo, Janghoon Kim, and Ryan Meredith</i>	
		54. Some Considerations in the Use of Currencies	531
		<i>Bruce Collins and Ozgur Kan</i>	
		<b>PART 5 Corporate Finance</b>	<b>539</b>
		<b>Basics</b>	
		55. Introduction to Financial Management and Analysis	541
		<i>Frank J. Fabozzi and Pamela P. Drake</i>	
		56. Introduction to International Corporate Financial Management	551
		<i>Frank J. Fabozzi and Pamela P. Drake</i>	

57. Corporate Strategy and Financial Planning <i>Frank J. Fabozzi and Pamela P. Drake</i>	563	75. Structuring Efficient Asset-Backed Transactions <i>Len Blum and Chris DiAngelo</i>	765
58. Corporate Governance <i>Mark J. P. Anson and Frank J. Fabozzi</i>	583	76. Funding through the Use of Trade Receivable Securitizations <i>Adrian Katz and Jeremy Blatt</i>	779
59. Measuring the Performance of Corporate Managers <i>Harold Bierman, Jr.</i>	591	77. Operational Issues in Securitization <i>Vinod Kothari</i>	789
Capital Structure and Dividend Policy		78. Project Financing <i>Henry A. Davis and Frank J. Fabozzi</i>	799
60. Capital Structure Decisions in Corporate Finance <i>Frank J. Fabozzi and Pamela P. Drake</i>	601	79. The Fundamentals of Equipment Leasing <i>Frank J. Fabozzi</i>	815
61. Capital Structure: Lessons from Modigliani and Miller <i>Frank J. Fabozzi and Pamela P. Drake</i>	617	80. Leveraged Leasing <i>Frank J. Fabozzi</i>	825
62. Bondholder Value versus Shareholder Value <i>Claus Huber</i>	623	81. Lease versus Borrow-to-Buy Analysis <i>Frank J. Fabozzi</i>	837
63. Recapitalization of Troubled Companies <i>Enrique R. Arzac</i>	631	Working Capital Management	
64. Dividend and Dividend Policies <i>Frank J. Fabozzi and Pamela P. Drake</i>	645	82. Basic Treasury Management Concepts <i>James Sagner and Michele Allman-Ward</i>	851
Capital Budgeting		83. Advanced Treasury Management Concepts <i>James Sagner and Michele Allman-Ward</i>	861
65. The Investment Problem and Capital Budgeting <i>Frank J. Fabozzi and Pamela P. Drake</i>	653	84. Management of Accounts Receivable <i>Pamela P. Drake and Frank J. Fabozzi</i>	871
66. Estimating Cash Flows of Capital Budgeting Projects <i>Frank J. Fabozzi and Pamela P. Drake</i>	659	85. Inventory Management <i>Pamela P. Drake and Frank J. Fabozzi</i>	877
67. Capital Budgeting Techniques <i>Frank J. Fabozzi and Pamela P. Drake</i>	671	Mergers and Acquisitions	
68. Capital Budgeting and Risk <i>Pamela P. Drake and Frank J. Fabozzi</i>	685	86. Acquisitions and Takeovers <i>Aswath Damodaran</i>	883
69. Real Options <i>John D. Finnerty</i>	697	87. Taking Control of a Company <i>Pascal Quiry, Maurizio Dallocchio, Yann Le Fur, and Antonio Salvi</i>	903
70. Real Options and Modern Capital Investment Decisions <i>William T. Moore</i>	715	88. Mergers and Demergers <i>Pascal Quiry, Maurizio Dallocchio, Yann Le Fur, and Antonio Salvi</i>	915
71. Hurdle Rates for Overseas Projects <i>Thomas J. O'Brien</i>	727	89. Leveraged Buyouts <i>Pascal Quiry, Maurizio Dallocchio, Yann Le Fur, and Antonio Salvi</i>	925
Structured Finance		Volume III	
72. Structured Finance <i>Frank J. Fabozzi, Henry A. Davis, and Moorad Choudhry</i>	737	PART 1 Risk Management	
73. Introduction to Securitization * <i>Anand K. Bhattacharya, Frank J. Fabozzi, and W. Alexander Roever</i>	745	General Principles	
74. Issuer Prospective in Structuring Asset-Backed Securities Transactions <i>Frank J. Fabozzi and Vinod Kothari</i>	757	1. Risk and the French Connection <i>Peter L. Bernstein</i>	
		2. Risk: Traditional Finance versus Behavioral Finance <i>Victor Ricciardi</i>	11
		3. Overview of Risk Management and Alternative Risk Transfer <i>Erik Banks</i>	39

4. Risk and Risk Management <i>Christopher L. Gulp</i>	53	PART 3 Credit Risk Modeling and Analysis	255
5. Risk Management for Asset Management Firms <i>Noel Amenc, Jean-Rene Giraud, Lionel Martellini, and Veronique Le Sourd</i>	63	24. Credit Risk <i>Frank J. Fabozzi</i>	257
6. Catastrophe and Risk <i>Erik Banks</i>	71	25. Credit Risk Modeling Using Structural Models <i>Mark J.P. Anson, Frank J. Fabozzi, Ren-Raw Chen, and Moorad Choudhry</i>	267
7. Overview of Enterprise Risk Management <i>James Lam</i>	81	26. Credit Risk Modeling Using Reduced-Form Models <i>Mark J.P. Anson, Frank J. Fabozzi, Ren-Raw Chen, and Moorad Choudhry</i>	277
Risk Models		27. The Credit Analysis of Municipal Bonds <i>Sylvan G. Feldstein and Frank Fabozzi</i>	287
8. Model Risk <i>Kevin Dowd</i>	87	PART 4 Valuation	301
9. Back-Testing Market Risk Models <i>Kevin Dowd</i>	93	Equity Valuation	
10. Risk Measures and Portfolio Selection <i>Svetlozar T. Rachev, Christian Menn, and Frank J. Fabozzi</i>	101	28. Introduction to Valuation <i>Aswath Damodaran</i>	303
11. Statistical Models of Operational Loss <i>Carol Alexander</i>	109	29. Applied Equity Valuation: Discounted Cash Flow Method <i>Glen A. Larsen, Jr.</i>	309
12. Risk Management in Freight Markets with Forwards and Options Contracts <i>Juby George and Radu Tunaru</i>	129	30. Applied Equity Valuation: Relative Valuation Method <i>Glen A. Larsen, Jr.</i>	321
Fixed Income Risk Management		31. Dividend Discount Models <i>Pamela P. Drake and Frank J. Fabozzi</i>	329
13. Fixed Income Risk Modeling <i>Ludovic Breger and Oren Cheyette</i>	137	32. Equity Analysis Using Traditional and Value-Based Metrics <i>Frank J. Fabozzi and James L. Grant</i>	339
14. Effective Duration and Convexity <i>Gerald W. Bietow, Jr. and Robert R. Johnson</i>	153	33. The Franchise Factor Approach to Firm Valuation <i>Martin L. Leibowitz and Stanley Kogelman</i>	359
15. Duration Estimation for Bonds and Bond Portfolios <i>Frank J. Fabozzi</i>	159	34. IPO Valuation <i>Knntara Pukthuanthong-Le</i>	375
16. Yield Curve Risk Measures <i>Frank J. Fabozzi and Steven V. Mann</i>	165	35. The Valuation of Private Firms <i>Stanley Jay Feldman</i>	383
17. Improving Guidelines for Interest Rate and Credit Derivatives <i>Steven K. Kreider, Scott F. Richard, and Frank J. Fabozzi</i>	175	Valuing Fixed Income Securities	
18. Modeling Portfolio Credit Risk <i>Srichander Ramaswamy</i>	183	36. General Principles of Bond Valuation <i>Frank J. Fabozzi and Steven V. Mann</i>	399
19. The Basics of Cash-Market Hedging <i>Shrikant Ramamurthy</i>	193	37. Yield Curves and Valuation Lattices <i>Frank J. Fabozzi, Andrew Kalotay, and Michael Dorigan</i>	411
20. Hedging Fixed Income Securities with Interest Rate Swaps <i>Shrikant Ramamurthy</i>	207	38. Using the Lattice Model to Value Bonds with Embedded Options, Floaters, Options, and Caps/Floors <i>Frank J. Fabozzi, Andrew Kalotay, and Michael Dorigan</i>	417
21. Yield Curve Risk Management <i>Robert R. Reitano</i>	215	39. Valuing Mortgage-Backed and Asset-Backed Securities <i>Frank J. Fabozzi</i>	429
PART 2 Interest Rate Modeling	233		
22. The Concept and Measures of Interest Rate Volatility <i>Alexander Levin</i>	235		
23. Short-Rate Term Structure Models <i>Alexander Levin</i>	243		

40. A Framework for Valuing Treasury Inflation-Protected Securities <i>Priya Misra, Kodjo Apedjinou, and Anshul Pradhan</i>	439	54. Financial Ratio Analysis <i>Pamela P. Drake and Frank J. Fabozzi</i>	581
41. Quantitative Models to Value Convertible Bonds <i>Filippo Stefanini</i>	445	55. Mathematics of Finance <i>Pamela P. Drake and Frank J. Fabozzi</i>	597
Derivatives Valuation		56. Calculating Investment Returns <i>Bruce J. Feibel</i>	
42. Introduction to the Pricing of Futures/Forwards and Options <i>Frank J. Fabozzi</i>	451	Statistical Tools	
43. Black-Scholes Option Pricing Model <i>Svetlozar T. Rachev, Christian Menn, and Frank J. Fabozzi</i>	459	57. Basic Data Description for Financial Modeling and Analysis <i>Markus Hoehsloetter, Svetlozar T. Rachev, and Frank J. Fabozzi</i>	633
44. Valuing a Plain Vanilla Swap, <i>Gerald W. Buetow and Frank J. Fabozzi</i>	467	58. Elementary Statistics <i>Robert Whaley</i>	645
45. Valuing Swaptions <i>Frank J. Fabozzi and Gerald W. Buetow</i>	477	59. Regression Analysis <i>Svetlozar T. Rachev, Stefan Mittnik, Frank J. Fabozzi, Sergio Focardi, and Teo Jasic</i>	669 §
46. Pricing Options on Interest Rate Instruments <i>Radii Tunaru and Brian Eales</i>	495	60. ARCH/GARCH Models in Applied Financial Econometrics <i>Robert F. Engle, Sergio M. Focardi, and Frank J. Fabozzi</i>	689
47. Credit Default Swaps Valuation <i>Ren-Raw Chen, Frank J. Fabozzi, and Dominic O'Kane</i>	507	61. Cointegration and Its Application in Finance <i>Bala Arshanapalli and William Nelson</i>	701
48. The Valuation of Fixed Income Total Return Swaps <i>Ren-Raw Chen and Frank J. Fabozzi</i>	519	62. Moving Average Models for Volatility and Correlation, and Covariance Matrices <i>Carol Alexander</i>	711
49. Valuing Inflation Derivatives <i>Jeroen Kerkhof</i>	523	63. Introduction to Stochastic Processes <i>Svetlozar T. Rachev, Christian Menn, and Frank J. Fabozzi</i>	725
Valuing Commodity, Foreign Exchange, and Real Estate Products		64. Bayesian Probability for Investors <i>Jarrod W. Wilcox</i>	739
<b>50. The Pricing and Economics of Commodity Futures</b> <i>Mark J. P. Anson</i>	<b>535</b>	Optimization and Simulation Tools	
<b>51. Introduction to Currency Option Pricing Models</b> <i>Shani Shamah</i>	<b>545</b>	65. Monte Carlo Simulation in Finance <i>Dessislava A. Pachamanova</i>	751
<b>52. Pricing Commercial Real Estate Derivatives</b> <i>David Geltner and Jeffrey D. Fisher</i>	<b>557</b>	66. Principles of Optimization for Portfolio Selection <i>Stoyan V. Stoyanov, Svetlozar T. Rachev, and Frank J. Fabozzi</i>	763
<b>PART 5 Mathematical Tools and Techniques for Financial Modeling and Analysis</b>	<b>567</b>	67. Introduction to Stochastic Programming and Its Applications to Finance <i>Koray D. Simsek</i>	775
<b>Basic Tools and Analysis</b>		68. Robust Portfolio Optimization <i>Dessislava A. Pachamanova, Petter N. Kolm, Frank J. Fabozzi, and Sergio M. Focardi</i>	785
<b>53. Cash-Flow Analysis</b> <i>Pamela P. Drake and Frank J. Fabozzi</i>	<b>569</b>		