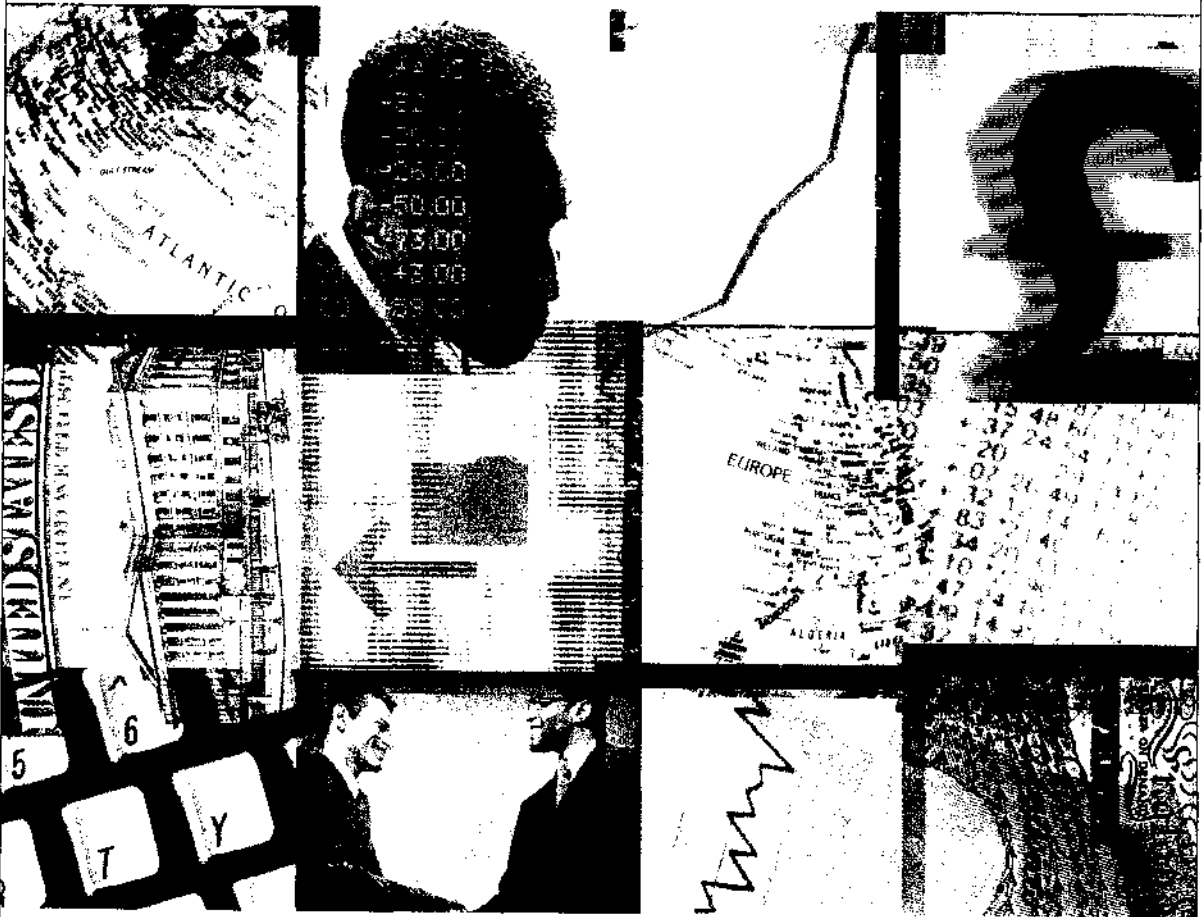


INVESTMENTS

SIXTH EDITION



BODIE / KANE / MARCUS

McGRAW-HILL INTERNATIONAL EDITION

PART ONE 1
INTRODUCTION

CHAPTER 1 3
THE INVESTMENT ENVIRONMENT

1.1 Real Assets versus Financial Assets 4

1.2 Financial Markets and the Economy 6

- Consumption Timing 6
- Allocation of Risk 6
- Separation of Ownership and Management 7
- A Crisis in Corporate Governance 8
 - Accounting Scandals 8
 - Analyst Scandals 10
 - Initial Public Offerings 11

1.3 Clients of the Financial System 11

- The Household Sector 12
- The Business Sector 12
- The Government Sector 13

1.4 The Environment Responds to Clientele Demands 14

- Financial Intermediation 14
- Investment Banking 16
- Financial Innovation and Derivatives 17
- Response to Taxation and Regulation 18

1.5 Markets and Market Structure 20

1.6 Ongoing Trends 21

- Globalization 21
- Securitization 22
- Financial Engineering 24
- Computer Networks 25

Summary 25

Key Terms 26

Websites 26

Problems 27

Standard and Poor's 29

E-Investments: Track Your Portfolio 29

Solutions to Concept Checks 30

CHAPTER 2 31
FINANCIAL INSTRUMENTS

2.1 The Money Market 32

- Treasury Bills 32
- Certificates of Deposit 33
- Commercial Paper 33
- Bankers' Acceptances 33
- Eurodollars 34
- Repos and Reverses 34
- Federal Funds 34
- Brokers' Calls 35
- The LIBOR Market 35
- Yields on Money Market Instruments 35

2.2 The Bond Market 35

- Treasury Notes and Bonds 36
- Federal Agency Debt 36
- International Bonds 38
- Municipal Bonds 39
- Corporate Bonds 41
- Mortgages and Mortgage-Backed Securities 42

2.3 Equity Securities 44

- Common Stocks as Ownership Shares 44
- Characteristics of Common Stock 45
- Stock Market Listings 46
- Preferred Stock 47

2.4 Stock and Bond Market Indexes 47

- Stock Market Indexes 47
- Dow Jones Averages 48
- Standard & Poor's Indexes 51
- Other U.S. Market-Value Indexes 52
- Equally Weighted Indexes 52
- Foreign and International Stock Market Indexes 53
- Bond Market Indicators 53

2.5 Derivative Markets 54

- Options 54
- Futures Contracts 57

Summary	58	Websites	100
Key Terms	59	Problems	101
Websites	59	Standard and Poor's	105
Problems	60	E-Investments: Short Sales	105
Standard and Poor's	63	Solutions to Concept Checks	105
E-Investments:			
Security Prices and Returns	63		
Solutions to Concept Checks	63		
CHAPTER 3	65	CHAPTER 4	107
HOW SECURITIES ARE TRADED		MUTUAL FUNDS AND OTHER	
3.1 How Firms Issue Securities	66	INVESTMENT COMPANIES	
Investment Bankers and Underwriting	66	4.1 Investment Companies	108
Shelf Registration	68	4.2 Types of Investment Companies	109
Private Placements	68	Unit Investment Trusts	109
Initial Public Offerings	68	Managed Investment Companies	109
3.2 Where Securities Are Traded	71	Other Investment Organizations	111
The Secondary Markets	72	Commingled Funds	111
The Over-the-Counter Market	73	Real Estate Investment	
The Third and Fourth Markets	75	Trusts (REITS)	111
The National Market System	76	Hedge Funds	111
Bond Trading	77	4.3 Mutual Funds	112
3.3 Trading on Exchanges	77	Investment Policies	112
The Participants	77	Money Market Funds	112
Types of Orders	78	Equity Funds	112
Market Orders	78	Bond Funds	113
Limit Orders	78	International Funds	113
Specialists and the Execution of Trades	80	Balanced and Income Funds	113
Block Sales	81	Asset Allocation and	
The SuperDOT System	82	Flexible Funds	113
Settlement	82	Index Funds	113
3.4 Trading on the OTC Market	82	How Funds Are Sold	115
Market Structure in Other Countries	84	4.4 Costs of Investing in Mutual Funds	116
London	84	Fee Structure	116
Euronext	84	Front-End Load	116
Tokyo	85	Back-End Load	116
Globalization of Stock Markets	85	Operating Expenses	116
3.5 Trading Costs	86	2b-1 Charges	116
3.6 Buying on Margin	88	Fees and Mutual Fund Returns	117
3.7 Short Sales	91	4.5 Taxation of Mutual Fund Income	119
3.8 Regulation of Securities Markets	94	4.6 Exchange-Traded Funds	120
Government Regulation	94	4.7 Mutual Fund Investment Performance:	
Regulatory Responses to		A First Look	122
Recent Scandals	95	4.8 Information on Mutual Funds	125
Self-Regulation and Circuit Breakers	96	Summary	129
Insider Trading	98	Key Terms	129
Summary	99	Websites	130
Key Terms	100	Problems	131
		Standard and Poor's	133
		E-Investments: Choosing a Mutual Fund	133
		Solutions to Concept Checks	133

PART TWO 135

PORTFOLIO THEORY

CHAPTER 5 137

HISTORY OF INTEREST RATES AND RISK PREMIUMS

- 5.1 Determinants of the Level of Interest Rates 138
 - Real and Nominal Rates of Interest 138
 - The Equilibrium Real Rate of Interest 139
 - The Equilibrium Nominal Rate of Interest 140
 - Bills and Inflation, 1963–2002 141
 - Taxes and the Real Rate of Interest 142
- 5.2 Risk and Risk Premiums 142
- 5.3 The Historical Record 144
 - Bills, Bonds, and Stocks, 1926–2002 144
- 5.4 Real Versus Nominal Risk 150
- 5.5 Return Distributions and Value at Risk 151
- 5.6 A Global View of the Historical Record 154
- 5.7 Forecasts for the Long Haul 154
 - Summary 156
 - Key Terms 157
 - Websites 157
 - Problems 158
 - Standard and Poor's 162
 - E-Investments: Analytics Tutorial 162
 - Solutions to Concept Checks 162
 - Appendix: Continuous Compounding 162

CHAPTER 6 165

RISK AND RISK AVERSION

- 6.1 Risk and Risk Aversion 166
 - Risk with Simple Prospects 166
 - Risk, Speculation, and Gambling 167
 - Risk Aversion and Utility Values 168
- 6.2 Portfolio Risk 173
 - Asset Risk versus Portfolio Risk 173
 - A Review of Portfolio Mathematics 174
 - Rule 1 174
 - Rule 2 174
 - Rule 3 175
 - Rule 4 175
 - Rule 5 178
 - Summary 179
 - Key Terms 179
 - Websites 179
 - Problems 180

- Standard and Poor's 182
- E-Investments: Risk and Return 182
- Solutions to Concept Checks 182
- Appendix A: A Defense of Mean-Variance Analysis 184
- Appendix B: Risk Aversion, Expected Utility, and the St. Petersburg Paradox 191

CHAPTER 7 197

CAPITAL ALLOCATION BETWEEN THE RISKY ASSET AND THE RISK-FREE ASSET

- 7.1 Capital Allocation across Risky and Risk-Free Portfolios 198
- 7.2 The Risk-Free Asset 200
- 7.3 Portfolios of One Risky Asset and One Risk-Free Asset 201
- 7.4 Risk Tolerance and Asset Allocation 205
- 7.5 Passive Strategies: The Capital Market Line 210
 - Summary 214
 - Key Terms 214
 - Websites 215
 - Problems 215
 - Standard and Poor's 219
 - E-Investments: The S&P 500 219
 - Solutions to Concept Checks 219

CHAPTER 8 223

OPTIMAL RISKY PORTFOLIOS

- 8.1 Diversification and Portfolio Risk 224
- 8.2 Portfolios of Two Risky Assets 225
- 8.3 Asset Allocation with Stocks, Bonds, and Bills 234
 - The Ultimate Risky Portfolio with Two Risky Assets and a Risk-Free Asset 235
- 8.4 The Markowitz Portfolio Selection Model 240
 - Security Selection 240
- 8.5 The Spreadsheet Model 246
 - Calculation of Expected Return and Variance 246
 - Capital Allocation and the Separation Property 251
 - Asset Allocation and Security Selection 253
- 8.6 Optimal Portfolios with Restrictions on the Risk-Free Asset 254
 - Summary 258
 - Key Terms 259

Websites	259	Estimating the Index Model	321
Problems	260	The Index Model and Diversification	324
E-Investments: Risk Comparisons	266	10.2 The CAPM and the Index Model	326
Solutions to Concept Checks	266	Actual Returns versus	
Appendix A:		Expected Returns	326
The Power of Diversification	269	The Index Model and Realized Returns	326
Appendix B:		The Index Model and the Expected	
The Insurance Principle:		Return–Beta Relationship	327
Risk-sharing versus Risk-Pooling	272	10.3 The Industry Version of the Index Model	329
Appendix C:		Predicting Betas	333
The Fallacy of Time Diversification	274	10.4 Index Models and Tracking Portfolios	334
		Summary	336
		Key Terms	336
		Websites	336
		Problems	336
		Standard and Poor's	340
		E-Investments: Comparing Volatilities	
		and Beta Coefficients	340
		Solutions to Concept Checks	341
PART THREE	279		
EQUILIBRIUM IN			
CAPITAL MARKETS			
<hr/>			
CHAPTER 9	281	CHAPTER 11	343
THE CAPITAL ASSET PRICING MODEL		ARBITRAGE PRICING THEORY AND	
9.1 The Capital Asset Pricing Model	281	MULTIFACTOR MODELS OF RISK	
Why Do All Investors Hold		AND RETURN	
the Market Portfolio?	283	11.1 Multifactor Models: An Overview	344
The Passive Strategy Is Efficient	285	Factor Models of Security Returns	344
The Risk Premium		A Multifactor Security Market Line	346
of the Market Portfolio	285	11.2 Arbitrage Pricing Theory	348
Expected Returns		Arbitrage, Risk Arbitrage,	
on Individual Securities	286	and Equilibrium	349
The Security Market Line	289	Well-Diversified Portfolios	350
9.2 Extensions of the APM	292	Beta and Expected Returns	351
The CAPM with Restricted Borrowing:		The One-Factor	
The Zero-Beta Model	293	Security Market Line	353
Lifetime Consumption		11.3 Individual Assets and the APT	355
and the CAPM	297	The APT and the CAPM	356
9.3 The CAPM and Liquidity	297	11.4 A Multifactor APT	356
Summary	303	11.5 Where Should We Look	
Key Terms	304	for Factors?	358
Websites	304	11.6 A Multifactor CAPM	361
Problems	304	Summary	362
Standard and Poor's	309	Key Terms	363
E-Investments: Beta Comparisons	309	Websites	363
Solutions to Concept Checks	310	Problems	363
Appendix: Demand for Stocks		Standard and Poor's	367
and Equilibrium Prices	311	E-Investments: APT versus CAPM	368
		Solutions to Concept Checks	368
CHAPTER 10	317		
INDEX MODELS			
10.1 A Single-Index Security Market	318		
Systematic Risk versus			
Firm-Specific Risk	318		

CHAPTER 12 369

MARKET EFFICIENCY
AND BEHAVIORAL FINANCE

- 12.1 Random Walks and the Efficient Market Hypothesis 370
 - Competition as the Source of Efficiency 372
 - Versions of the Efficient Market Hypothesis 373
- 12.2 Implications of the EMH 373
 - Technical Analysis 373
 - Fundamental Analysis 377
 - Active versus Passive Portfolio Management 378
 - The Role of Portfolio Management in an Efficient Market 380
 - Resource Allocation 380
- 12.3 Event Studies 381
- 12.4 Are Markets Efficient? 384
 - The Issues 384
 - The Magnitude Issue 384
 - The Selection Bias Issue 385
 - The Lucky Event Issue 385
 - Weak-Form Tests: Patterns in Stock Returns 386
 - Returns over Short Horizons 386
 - Returns over Long Horizons 387
 - Predictors of Broad Market Returns 388
 - Semistrong Tests: Market Anomalies 388
 - The Small-Firm-in-January effect 389
 - The Neglected-Firm Effect and Liquidity Effects 391
 - Book-to-Market Ratios 391
 - Post-Earnings-Announcement Price Drift 392
 - Strong-Form Tests: Inside Information 394
 - Interpreting the Evidence 394
 - Risk Premiums or Inefficiencies? 394
 - Anomalies or Data Mining? 396
- 12.5 A Behavioral Interpretation 396
 - Information Processing 397
 - Forecasting Errors 397
 - Overconfidence 397
 - Conservatism 398
 - Sample-Size Neglect and Representativeness 398
 - Behavioral Biases 398
 - Framing 398
 - Mental Accounting 398

- Regret Avoidance 399
- Limits to Arbitrage 399
 - Fundamental Risk 399
 - Implementation Costs 400
 - Model Risk 400
- Evaluating the Behavioral Critique 400
- 12.6 Mutual Fund Performance 401
 - So, Are Markets Efficient? 405
 - Summary 405
 - Key Terms 406
 - Websites 406
 - Problems 407
 - Standard and Poor's 413
 - E-Investments: Efficient Markets and Insider Trading 413
 - Solutions to Concept Checks 413

CHAPTER 13 415

EMPIRICAL EVIDENCE
ON SECURITY RETURNS

- 13.1 The Index Model and the Single-Factor APT 416
 - The Expected Return-Beta Relationship 416
 - Setting Up the Sample Data 417
 - Estimating the SCL 417
 - Estimating the SML 417
 - Tests of the CAPM 418
 - The Market Index 419
 - Measurement Error in Beta 422
 - The EMH and the CAPM 424
 - Accounting for Human Capital and Cyclical Variations in Asset Betas 424
- 13.2 Tests of Multifactor CAPM and APT 426
 - A Macro Factor Model 426
- 13.3 The Fama-French Three-Factor Model 429
- 13.4 Time-Varying Volatility 432
- 13.5 The Equity Premium Puzzle 435
 - Expected versus Realized Returns 435
 - Survivorship Bias 437
- 13.6 Survivorship Bias and Tests of Market Efficiency 438
 - Summary 441
 - Key Terms 441
 - Websites 441
 - Problems 442
 - Standard and Poor's 444
 - E-Investments: Portfolio Theory 444
 - Solutions to Concept Checks 444

PART FOUR 445
FIXED-INCOME SECURITIES

CHAPTER 14 447

BOND PRICES AND YIELDS

- 14.1 Bond Characteristics 448
 - Treasury Bonds and Notes 448
 - Accrued Interest and Quoted Bond Prices 450
 - Corporate Bonds 450
 - Call Provisions on Corporate Bonds 451
 - Convertible Bonds 452
 - Puttable Bonds 452
 - Floating-Rate Bonds 452
 - Preferred Stock 452
 - Other Issuers 453
 - International Bonds 453
 - Innovation in the Bond Market 453
 - Inverse Floaters 454
 - Asset-Backed Bonds 454
 - Catastrophe Bonds 454
 - Indexed Bonds 454
- 14.2 Bond Pricing 455
 - Bond Pricing between Coupon Dates 458
- 14.3 Bond Yields 459
 - Yield to Maturity 459
 - Yield to Call 462
 - Realized Compound Yield versus Yield to Maturity 464
- 14.4 Bond Prices over Time 466
 - Yield to Maturity versus Holding-Period Return 468
 - Zero-Coupon Bonds 468
 - After-Tax Returns 469
- 14.5 Default Risk and Bond Pricing 471
 - Junk Bonds 471
 - Determinants of Bond Safety 471
 - Bond Indentures 474
 - Sinking Funds 474
 - Subordination of Further Debt 475
 - Dividend Restrictions 475
 - Collateral 476
 - Yield to Maturity and Default Risk 477
 - Summary 478
 - Key Terms 479
 - Websites 479
 - Problems 480

- Standard and Poor's 485
- E-Investments: Credit Spreads 485
- Solutions to Concept Checks 485

CHAPTER 15 487

THE TERM STRUCTURE OF INTEREST RATES

- 15.1 The Term Structure Under Certainty 488
 - Bond Pricing 488
 - Bond Stripping and Pricing of Coupon Bonds 491
 - Holding-Period Returns 492
 - Forward Rates 493
- 15.2 Interest Rate Uncertainty and Forward Rates 495
- 15.3 Theories of the Term Structure 497
 - The Expectations Hypothesis 497
 - Liquidity Preference 497
- 15.4 Interpreting the Term Structure 498
- 15.5 Forward Rates as Forward Contracts 503
- 15.6 Measuring the Term Structure 505
 - Summary 509
 - Key Terms 509
 - Websites 509
 - Problems 510
 - E-Investments: Expectations and Term Spreads 516
 - Solutions to Concept Checks 516

CHAPTER 16 519

MANAGING BOND PORTFOLIOS

- 16.1 Interest Rate Risk 520
 - Interest Rate Sensitivity 520
 - Duration 523
 - What Determines Duration? 527
 - Rule 1 for Duration 528
 - Rule 2 for Duration 528
 - Rule 3 for Duration 528
 - Rule 4 for Duration 529
 - Rule 5 for Duration 529
 - Rule 6 for Duration 530
 - Rule 7 for Duration 530
 - Rule 8 for Duration 530
- 16.2 Convexity 531
 - Why Do Investors Like Convexity? 534
 - Duration and Convexity of Callable Bonds 534

16.3	Passive Bond Management	536
	Bond-Index Funds	537
	Immunization	538
	Cash Flow Matching and Dedication	546
	Other Problems with Conventional Immunization	546
16.4	Active Bond Management	547
	Sources of Potential Profit	547
	Horizon Analysis	548
	Contingent Immunization	549
16.5	Interest Rate Swaps	551
	Swaps and Balance Sheet Restructuring	552
	The Swap Dealer	552
16.6	Financial Engineering and Interest Rate Derivatives	553
	Summary	555
	Key Terms	556
	Websites	556
	Problems	557
	Standard and Poor's	566
	E-Investments: Bond Calculations	566
	Solutions to Concept Checks	566

PART FIVE 569

SECURITY ANALYSIS

CHAPTER 17	571
MACROECONOMIC AND INDUSTRY ANALYSIS	
17.1	The Global Economy 572
17.2	The Domestic Economy 574
17.3	Demand and Supply Shocks 576
17.4	Federal Government Policy 576
	Fiscal Policy 577
	Monetary Policy 578
	Supply-Side Policies 579
17.5	Business Cycles 579
	The Business Cycle 579
	Economic Indicators 581
17.6	Industry Analysis 585
	Defining an Industry 586
	Sensitivity to the Business Cycle 587
	Sector Rotation 590
	Industry Life Cycles 591
	Start-Up Stage 592
	Consolidation Stage 592

	Maturity Stage 592
	Relative Decline 593
	Industry Structure and Performance 594
	Threat of Entry 594
	Rivalry between Existing Competitors 594
	Pressure from Substitute Products 594
	Bargaining Power of Buyers 594
	Bargaining Power of Suppliers 595
	Summary 595
	Key Terms 595
	Websites 595
	Problems 596
	Standard and Poor's 602
	E-Investments: The Macroeconomy 602
	Solutions to Concept Checks 602

CHAPTER 18 605

EQUITY VALUATION MODELS

18.1	Valuation by Companies 606
	Limitations of Book Value 607
18.2	Intrinsic Value versus Market Price 608
18.3	Dividend Discount Models 609
	The Constant-Growth DDM 611
	Convergence of Price to Intrinsic Value 614
	Stock Prices and Investment Opportunities 615
	Life Cycles and Multistage Growth Models 618
	Multistage Growth Models 622
18.4	Price-Earnings Ratio 622
	The Price-Earnings Ratio and Growth Opportunities 622
	P/E Ratios and Stock Risk 626
	Pitfalls in P/E Analysis 627
	Combining P/E Analysis and the DDM 631
	Other Comparative Valuation Ratios 632
	Price-to-Book Ratio 632
	Price-to-Cash-Flow Ratio 632
	Price-to-Sales Ratio 633
18.5	Corporate Finance and the Free Cash Flow Approach 634
18.6	Inflation and Equity Valuation 636
18.7	The Aggregate Stock Market 639
	Explaining Past Behavior 639
	Forecasting the Stock Market 640

Summary	642
Key Terms	643
Websites	643
Problems	644
Standard and Poor's	651
E-Investments: Equity Valuation	652
Solutions to Concept Checks	652

CHAPTER 19 655

FINANCIAL STATEMENT ANALYSIS

19.1 The Major Financial Statements	656
The Income Statement	656
The Balance Sheet	657
The Statement of Cash Flows	658
19.2 Accounting versus Economic Earnings	659
19.3 Return on Equity	660
Past versus Future ROE	661
Financial Leverage and ROE	662
19.4 Ratio Analysis	664
Decomposition of ROE	664
Turnover and Other Asset Utilization Ratios	665
Liquidity and Coverage Ratios	667
Market Price Ratios	667
Choosing a Benchmark	670
19.5 Economic Value Added	671
19.6 An Illustration of Financial Statement Analysis	672
19.7 Comparability Problems	674
Inventory Valuation	674
Depreciation	675
Inflation and Interest Expense	676
Quality of Earnings	676
International Accounting Conventions	679
19.8 Value Investing:	
The Graham Technique	680
Summary	681
Key Terms	682
Websites	682
Problems	683
Standard and Poor's	692
E-Investments:	
Financial Statement Analysis	693
Solutions to Concept Checks	693

PART SIX 695

OPTIONS, FUTURES,
AND OTHER DERIVATIVES

CHAPTER 20 697

OPTIONS MARKETS: INTRODUCTION

20.1 The Option Contract	698
Options Trading	700
American and European Options	702
Adjustments in Option Contract Terms	702
The Option Clearing Corporation	702
Other Listed Options	703
Index Options	703
Futures Options	705
Foreign Currency Options	705
Interest Rate Options	705
20.2 Values of Options at Expiration	705
Call Options	705
Put Options	707
Option versus Stock Investments	709
20.3 Option Strategies	711
Protective Put	711
Covered Calls	713
Straddle	715
Spreads	716
Collars	716
20.4 The Put-Call Parity Relationship	719
20.5 Optionlike Securities	721
Callable Bonds	721
Convertible Securities	723
Warrants	725
Collateralized Loans	726
Levered Equity and Risky Debt	727
20.6 Financial Engineering	728
20.7 Exotic Options	731
Asian Options	731
Barrier Options	731
Lookback Options	731
Currency-Traded Options	731
Binary Options	732
Summary	732
Key Terms	732
Websites	732
Problems	733
Standard and Poor's	740
E-Investments: Options and Straddles	740
Solutions to Concept Checks	740

CHAPTER 21	745		
OPTION VALUATION			
21.1 Option Valuation: Introduction	746		
Intrinsic and Time Values	746		
Determinants of Option Values	747		
21.2 Restrictions on Option Values	748		
Restrictions on the Value of a Call Option	749		
Early Exercise and Dividends	751		
Early Exercise of American Puts	751		
21.3 Binomial Option Pricing	752		
Two-State Option Pricing	752		
Generalizing the Two-State Approach	755		
21.4 Black-Scholes Option Valuation	758		
The Black-Scholes Formula	759		
Dividends and Call Option Valuation	765		
Put Option Valuation	766		
21.5 Using the Black-Scholes Formula	767		
Hedge Ratios and the Black-Scholes Formula	767		
Portfolio Insurance	770		
Hedging Bets on Mispriced Options	774		
21.6 Empirical Evidence on Option Pricing	778		
Summary	779		
Key Terms	780		
Websites	780		
Problems	781		
Standard and Poor's	787		
E-Investments: Black-Scholes Option Pricing	788		
Solutions to Concept Checks	788		
CHAPTER 22	791		
FUTURES MARKETS			
22.1 The Futures Contract	792		
The Basics of Futures Contracts	792		
Existing Contracts	796		
22.2 Mechanics of Trading in Futures Markets	796		
The Clearinghouse and Open Interest	796		
Marking to Market and the Margin Account	799		
Cash versus Actual Delivery	801		
Regulations	802		
Taxation	802		
22.3 Futures Markets Strategies	802		
Hedging and Speculation	802		
Basis Risk and Hedging	805		
22.4 The Determination of Futures Prices	806		
The Spot-Futures Parity Theorem	806		
Spreads	809		
Forward versus Futures Pricing	810		
22.5 Futures Prices versus Expected Spot Prices	811		
Expectation Hypothesis	811		
Normal Backwardation	812		
Contango	812		
Modern Portfolio Theory	812		
Summary	813		
Key Terms	814		
Websites	814		
Problems	815		
Standard and Poor's	817		
E-Investments: Contract Specifications for Financial Futures and Options	818		
Solutions to Concept Checks	818		
CHAPTER 23	821		
FUTURES AND SWAPS: A CLOSER LOOK			
23.1 Foreign Exchange Futures	822		
The Markets	822		
Interest Rate Parity	822		
Direct versus Indirect Quotes	826		
Using Futures to Manage Exchange Rate Risk	826		
23.2 Stock Index Futures	829		
The Contracts	829		
Creating Synthetic Stock Positions: An Asset Allocation Tool	830		
Empirical Evidence on Pricing of Stock-Index Futures	832		
Index Arbitrage and the Triple-Witching Hour	834		
Using Index Futures to Hedge Market Risk	835		
23.3 Interest Rate Futures	837		
Hedging Interest Rate Risk	837		
Other Interest Rate Futures	839		
23.4 Commodity Futures Pricing	840		
Pricing with Storage Costs	840		
Discounted Cash Flow Analysis for Commodity Futures	843		
23.5 Swaps	844		
Swap Pricing	846		
Credit Risk in the Swap Market	847		
Swap Variations	848		

Summary	849
Key Terms	850
Websites	850
Problems	851
Standard and Poor's	856
E-Investments:	
Describing Different Swaps	856
Solutions to Concept Checks	857

PART SEVEN 859**ACTIVE PORTFOLIO MANAGEMENT**

CHAPTER 24 861

PORTFOLIO

PERFORMANCE EVALUATION

24.1 Measuring Investment Returns	862
Time-Weighted Returns versus Dollar-Weighted Returns	862
Arithmetic versus Geometric Averages	863
24.2 The Conventional Theory of Performance Evaluation	866
The M2 Measure of Performance (M^2)	869
Sharpe's Measure as the Criterion for Overall Portfolios	870
Appropriate Performance Measures in Three Sections	871
Jane's Portfolio Represents Her Entire Risky Investment Fund	871
Jane's Portfolio Is an Active Portfolio and Is Mixed with a Passive Market Index	872
Jane's Choice Portfolio Is One of Many Portfolios Combined into a Large Investment Fund	872
Relationships among the Various Performance Measures	874
Actual Performance Measurement: An Example	875
Realized Returns versus Expected Returns	875
24.3 Performance Measurement with Changing Portfolio Composition	877
24.4 Market Timing	879
24.5 Performance Attribution Procedures	881
Asset Allocation Decisions	883
Sector and Security Selection Decisions	884
Summing Up Component Contributions	885
24.6 Style Analysis	886

24.7 Morningstar's Risk-Adjusted Rating	889
24.8 Evaluating Performance Evaluation	890
Summary	892
Key Terms	893
Websites	893
Problems	894
Standard and Poor's	901
E-Investments:	
Performance of Mutual Funds	902
Solutions to Concept Checks	902

CHAPTER 25 905

INTERNATIONAL DIVERSIFICATION

25.1 Global Markets for Equities	906
Developed Countries	906
Emerging Markets	906
Market Capitalization and GDP	908
Home-Country Bias	910
25.2 Risk Factors in International Investing	910
Exchange Rate Risk	910
Country-Specific Risk	914
25.3 International Investing: Risk, Return, and Benefits from Diversification	917
Risk and Return: Summary Statistics	918
Are Investments in Emerging Markets Riskier?	918
Are Average Returns in Emerging Markets Greater?	918
Is Exchange Rate Risk Important in International Portfolios?	920
Benefits from International Diversification	921
Misleading Representation of Diversification Benefits	922
Realistic Benefits from International Diversification	925
Are Benefits from International Diversification Preserved in Bear Markets?	927
25.4 International Investing and Performance Attribution	927
Constructing a Benchmark Portfolio of Foreign Assets	928
Performance Attribution	929
Summary	932
Key Terms	932
Websites	933
Problems	933

Standard and Poor's	937	Pension Investment Strategies	957
E-Investments:		Investing in Equities	958
International Diversification	937	Wrong Reasons to Invest in Equities	959
Solutions to Concept Checks	937		
CHAPTER 26	939	26.6 Future Trends in Portfolio Management	960
THE PROCESS OF		Summary	961
PORTFOLIO MANAGEMENT		Key Terms	962
26.1 Making Investment Decisions	940	Websites	962
Objectives	940	Problems	963
Individual Investors	942	E-Investments: Personal Diversification	973
Personal Trusts	942	Solutions to Concept Checks	973
Mutual Funds	942	Appendix:	
Pension Funds	942	A Spreadsheet Model for	
Endowment Funds	942	Long-Term Investing	974
Life Insurance Companies	942		
Non-Life Insurance Companies	943	CHAPTER 27	981
Banks	943	THE THEORY OF	
26.2 Constraints	943	ACTIVE PORTFOLIO MANAGEMENT	
Liquidity	944	27.1 The Lure of Active Management	982
Investment Horizon	944	27.2 Objectives of Active Portfolios	983
Regulations	944	27.3 Market Timing	984
Tax Considerations	944	Valuing Market Timing as an Option	986
Unique Needs	944	The Value of Imperfect Forecasting	987
26.3 Asset Allocation	946	27.4 Security Selection:	
Policy Statements	947	The Treynor-Black Model	988
Taxes and Asset Allocation	947	Overview of the Treynor-Black Model	988
26.4 Managing Portfolios of		Portfolio Construction	989
Individual Investors	948	27.5 Multifactor Models and	
Human Capital and Insurance	948	Active Portfolio Management	995
Investment in Residence	949	27.6 Imperfect Forecasts of Alpha Values	
Saving for Retirement and the		and the Use of the Treynor-Black Model	
Assumption of Risk	949	in Industry	996
Retirement Planning Models	950	Summary	998
Manage Your Own Portfolio		Key Terms	999
or Rely on Others?	950	Problems	999
Tax Sheltering	952	Solutions to Concept Checks	1002
The Tax-Deferral Option	952		
Tax-Deferred Retirement Plans	953	APPENDIX A	1005
Deferred Annuities	953	Quantitative Review	
Variable and Universal		APPENDIX B	1043
Life Insurance	954	References to CFA Questions	
26.5 Pension Funds	955	APPENDIX C	1047
Defined Contribution Plans	955	Glossary	
Defined Benefit Plans	956		
Alternative Perspectives on Defined		NAME INDEX	1061
Benefit Pension Obligations	956	SUBJECT INDEX	1065