

Global Investments

i**
!)->

SIXTH EDITION

Bruno Solnik

HEC PARIS

HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

&

Dennis McLeave[^]

CFA INSTITUTE

UNIVERSITY OF VIRGINIA

EMERITUS. UNIVERSITY OF RHODE ISLAND

Boston San Francisco New York;
London Toronto Sydney Tokyo Singapore Madrid
Mexico City Munich Paris Cape Town Hong Kong Montreal

^Contents

Preface xix

Chapter 1 Currency Exchange Rates 1

Learning Outcomes 1

Currency Exchange Rate Quotations 3. / ; ,

***Direct and Indirect Quotations* 4 "

Cross-Rate Calculations 5

Forex Market and Quotation Conventions 6

Bid-Ask (Offer) Quotes and Spreads 8

Cross-Rate Calculations with Bid-Ask Spreads 10

No-Arbitrage Conditions with Exchange Rates 12

Forward Quotes 14

Interest Rate Parity: The Forward Discount and the Interest

Rate Differential 15

Forward Exchange Rate Calculations with Bid-Ask Spreads 20

Summary 22

Problems 25

Chapter 2 Foreign Exchange Parity Relations

Learning Outcomes 27

Foreign Exchange Fundamentals 28

Supply and Demand for Foreign Exchange 28

Balance of Payments 30

Current Account Deficits and Financial Account Surpluses 31

Factors Affecting the Financial Account 33

Government Policies: Monetary and Fiscal 35

Exchange Rate Regimes 36

International Parity Relations 38

Some Definitions 39

Interest Rate Parity 40

Purchasing Power Parity: The Exchange Rate and the Inflation

Differential 40

International Fisher Relation: The Interest Rate and Expected Inflation

Rate Differentials 42

<i>Undcovered Interest Rate Parity</i>	44
<i>Foreign Exchange Expectations: The Forward Premium (Discount) and the Expected Exchange Rate Movement</i>	46
<i>Combining the Relations</i>	48
<i>International Parity Relations and Global Asset Management</i>	48
Exchange Rate Determination	50
<i>Purchasing Power Parity Revisited</i>	51
<i>Fundamental Value Based on Absolute PPP</i>	51
<i>Fundamental Value Based on Relative PPP</i>	54
<i>The Balance of Payments Approach</i>	56
<i>The Asset Market Approach</i>	61
Summary	68
Problems	70
Bibliography	74

1

Chapter 3 Foreign Exchange Determination and Forecasting 75

Learning Outcomes	75
International Monetary Arrangements	76
<i>A Historical Perspective</i>	76
The Empirical Evidence	83
<i>Interest Rate Parity</i>	83
<i>International Fisher Relation</i>	84
<i>Purchasing Power Parity</i>	85
<i>Foreign Exchange Expectations</i>	88
<i>Practical Implications</i>	90
Exchange Rate Forecasting	91
<i>Is the Market Efficient and Rational?</i>	92
<i>The Econometric Approach</i>	94
<i>Technical Analysis</i>	95
<i>Central Bank Intervention</i>	97
<i>The Use and Performance of Forecasts</i>	99
Summary	102
Problems	103
Bibliography	106
Chapter 3 Appendix: Statistical Supplements on Forecasting Asset Returns	
<i>Some Notations</i>	109
<i>Traditional Statistical Models with Constant Moments</i>	110
<i>Traditional Statistical Models with Time-Varying Moments</i>	111
<i>Nontraditional Models</i>	113
<i>Data Mining, Data Snooping and Model Mining</i>	115

v

Chapter 4 International Asset Pricing 117

Learning Outcomes	117
International Market Efficiency	118
Asset Pricing Theory	121
<i>The Domestic Capital Asset Pricing Model</i>	121
<i>Asset Returns and Exchange Rate Movements</i>	123
[^] <i>The Domestic CAPM Extended to the International Context</i>	125
<i>International CAPM</i>	126
<i>Market Imperfections and Segmentation</i>	135
Practical Implications	136
<i>A Global Approach to Equilibrium Pricing</i>	136
<i>Estimating Currency Exposures</i>	139
<i>Tests of the ICAPM</i>	146
Summary	148
Problems	151
Bibliography	155

Chapter 5 Equity: Markets and Instruments 157

Learning Outcomes	157
Market Differences: A Historical Perspective	158
<i>Historical Differences in Market Organization</i>	159
<i>Historical Differences in Trading Procedures</i>	159
<i>Automation on the Major Stock Exchanges</i>	161
Some Statistics	167
<i>Market Size</i>	167
<i>Liquidity</i>	170
<i>Concentration</i>	171
Some Practical Aspects	171
<i>Tax Aspects</i>	172
<i>Stock Market Indexes</i>	172
<i>Information</i>	176
Execution Costs	177
<i>Components of Execution Costs</i>	177
<i>Estimation and Uses of Execution Costs</i>	179
<i>Some Approaches to Reducing Execution Costs</i>	182
Investing in Foreign Shares Listed at Home	185
<i>Global Shares and American Depositary Receipts</i>	185
<i>Motivation for Multiple Listing</i>	186
<i>Foreign Listing and ADRs</i>	186
<i>Closed-End Country Funds</i>	189
<i>Open-End Funds</i>	193
<i>Exchange Traded Funds</i>	193

&

Summary 196
Problems 197
Bibliography 202

Chapter 6 Equity: Concepts and Techniques 203

Learning Outcomes 203
Approaching International Analysis 204
 The Information Problem 205
 A Vision of the World 206
Differences in National Accounting Standards 207
 Historical Setting 208
 International Harmonization of Accounting Practices 209
 Differences in Global Standards 212
 The Effects of Accounting Principles on Earnings and Stock Prices 215
Global Industry Analysis 217
 Country Analysis 217
 Industry Analysis: Return Expectation Elements 222
 Industry Analysis: Risk Elements 227
Equity Analysis 232
Global Risk Factors in Security Returns 242
 Risk-Factor Model: Industry and Country Factors 246
 Other Risk Factors: Styles 247
 Other Risk Factors: Macroeconomic 247
 Practical Use of Factor Models 249
Summary 251
Problems 252
Bibliography 257

Chapter 7 Global Bond Investing 256

Learning Outcomes 256
The Global Bond Market 260
 The Various Segments 260
 World Market Size 262
 Bond Indexes 263
 The International Bond Market 264
 Emerging Markets and Brady Bonds 269
Major Differences Among Bond Markets 271
 Types of Investments 271
 Quotations, Day Count, and Frequency of Coupons 272
 Legal and Fiscal Aspects 274
A Refresher on Bond Valuation 276
 Zero-Coupon Bonds 276
 Bond with Coupons 278

\$

<i>Duration and Interest Rate Sensitivity</i>	280
<i>Credit Spreads</i>	282
Multicurrency Approach	284
<i>International Yield Curve Comparisons</i>	284
<i>The Return and Risk on Foreign Bond Investments</i>	287
<i>Currency-Hedging Strategies</i>	288
<i>International Portfolio Strategies</i>	289
Floating-Rate Notes and Structured Notes	293
<i>Floating-Rates Notes (FRNs)</i>	294
<i>BuUFRNs</i>	300
<i>Bear FRNs</i>	302
<i>Dual-Currency Bonds</i>	302
<i>Currency-Option Bonds</i>	306
<i>Collateralized Debt Obligations (CDOs)</i>	307 [^]
Summary	310
Problems	312
Bibliography	316

Chapter 8 Alternative Investments 317

Learning Outcomes	317
Investment Companies	319
<i>Valuing Investment Company Shares</i>	320
<i>Fund Management Fees</i>	320
<i>Investment Strategies</i>	320
<i>Exchange Traded Funds</i>	323
Real Estate	332
<i>Forms of Real Estate Investment</i>	333
<i>Valuation Approaches</i>	334
<i>Real Estate in a Portfolio Context</i>	342
Private Equity	344
<i>Stages of Venture Capital Investing</i>	346
<i>Investment Characteristics</i>	347
<i>Types of Liquidation/Divestment</i>	348
<i>Valuation and Performance Measurement</i>	349
Hedge Funds and Absolute Return Strategies	351
<i>Definition of Hedge Funds</i>	351
<i>Classification</i>	354
<i>Funds of Funds</i>	357
<i>Leverage and Unique Risks of Hedge Funds</i>	359
<i>Hedge Funds Universe and Indexes</i>	360
<i>The Case for Investing in Hedge Funds</i>	363
Closely Held Companies and Inactively Traded Securities	366
<i>Legal Environment</i>	366
<i>Valuation Alternatives</i>	367
<i>Bases for Discounts/Premiums</i>	367

T

Distressed Securities/Bankruptcies	568
Commodity Markets and Commodity Derivatives	369
<i>Commodity Futures</i>	369
<i>Motivation and Investment Vehicles</i>	370
<i>Active Investment</i>	371
<i>The Example of Gold</i>	372
<i>Commodity-Linked Securities</i>	373
Summary	575
Problems	578
Bibliography	583

Chapter 9 The Case for International Diversification 385

Learning Outcomes	385
The Traditional Case for International Diversification	588
<i>Risk Reduction through Attractive Correlations</i>	388
<i>Portfolio Return Performance</i>	398
<i>Currency Risk Not a Barrier to International Investment</i>	406
The Case against International Diversification	407
<i>Increase in Correlations</i>	407
<i>Past Performance Is a Good Indicator of Future Performance</i>	411
<i>Barriers to International Investments</i>	411
The Case for International Diversification Revisited	415
<i>Pitfalls in Estimating Correlation During Volatile Periods</i>	415
<i>Expanded Investment Universe and Performance Opportunities</i>	417
<i>Global Investing Rather Than International Diversification</i>	418
The Case for Emerging Markets	421
<i>The Basic Case</i>	421
<i>Volatility, Correlations, and Currency Risk</i>	422
<i>Portfolio Return Performance</i>	423
<i>Instability of Emerging Markets</i>	424
<i>Segmentation versus Integration Issue</i>	425
Summary	425
Problems	427
Bibliography	430

Chapter 10 Derivatives: Risk Management with Speculation, Hedging, and Risk Transfer 433

Learning Outcomes	433
Forward and Futures	434

<i>The Principles of a Forward, and a Futures Contract</i>	434
<i>The Different Instruments</i>	437
<i>Forward and Futures Valuation</i>	444
<i>Use of Forward and Futures</i>	447
Swaps	453
<i>The Principles of a Swap</i>	453
<i>The Different Instruments</i>	454
<i>Swaps Valuation</i>	456
<i>Use of Swaps</i>	460
Options	464
<i>Introduction to Options</i>	464
<i>The Different Instruments</i>	466
<i>Option Valuation</i>	468
<i>Use of Options</i>	473
Summary	476
Problems	478
Bibliography	483

Chapter 11 Currency Risk Management 485

Learning Outcomes	485
Hedging with Futures or Forward Currency Contracts	486
<i>The Basic Approach: Hedging the Principal</i>	487
<i>Minimum-Variance Hedge Ratio</i>	490
<i>The Influence of the Basis</i>	494
<i>Implementing Hedging Strategies</i>	496
<i>Hedging Multiple Currencies</i>	497
Insuring and Hedging with Options	499
<i>Insuring with Options</i>	499
<i>Dynamic Hedging with Options</i>	500
<i>Implementation</i>	504
Other Methods for Managing Currency Exposure	505
Strategic and Tactical Currency Management	509
<i>Strategic Hedge Ratio</i>	509
<i>Currency Overlay</i>	512
<i>Currencies as an Asset Class</i>	514
Summary	515
Problems	516
Bibliography	521

Chapter 12 Global Performance Evaluation

Learning Outcomes	523
The Basics	524
<i>Principles and Objectives</i>	524
<i>Calculating a Rate of Return</i>	527

Performance Attribution in Global Performance Evaluation	534
<i>The Mathematics of Multicurrency Returns</i>	535
<i>Total-Return Decomposition</i>	537
<i>Performance Attribution</i>	540
<i>More on Currency Management</i>	545
<i>Multiperiod Attribution Analysis</i>	548
<i>An Example of Output</i>	555
Performance Appraisal in Global Performance Evaluation	557
<i>Risk</i>	557
<i>Risk-Adjusted Performance</i>	559
<i>Risk Allocation and Budgeting</i>	562
<i>Some Potential Biases in Return and Risk</i>	563
Implementation of Performance Evaluation	565
<i>More on Global Benchmarks</i>	565
<i>Global Investment Performance Standards and Other Performance</i>	568
<i>Presentation Standards</i>	568
Summary	570
Problems	571
Bibliography	579

Chapter 13 Structuring the Global Investment Process 581

Learning Outcomes	581
A Tour of the Global Investment Industry	582
<i>Investors</i>	582
<i>Investment Managers</i>	584
<i>Brokers</i>	585
<i>Consultants and Advisers</i>	585
<i>Custodians</i>	587
Global Investment Philosophies	587
<i>The Passive Approach</i>	587
<i>The Active Approach</i>	589
<i>Balanced or Specialized</i>	590
<i>Industry or Country Approach</i>	591
<i>Top-Down or Bottom-Up</i>	591
<i>Style Management</i>	592
<i>Currency</i>	593
<i>Quantitative or Subjective</i>	594
The Investment Policy Statement	595
Capital Market Expectations	600
<i>Defining Asset Classes</i>	603
<i>Long-Term Capital Market Expectations: Historical Returns</i>	603
<i>Long-Term Capital Market Expectations: Forward-Looking Returns</i>	605
<i>Short-Term Capital Market Expectations</i>	608

JN

Global Asset Allocation: From Strategic to Tactical	610	
<i>Strategic Asset Allocation</i>	610	
<i>Tactical Asset Allocation</i>	614	
Global Asset Allocation: Structuring and Quantifying the Process	615	
<i>Research and Market Analysis</i>	617	
<i>Asset Allocation Optimization</i>	619	
<i>Portfolio Construction</i>	620	
<i>Performance and Risk Control</i>	620	
Summary	624	^
Problems	625 ⁿ	
Bibliography	627	
<i>Glossary</i>	629	
<i>Index</i>	643	l * r

Global Investment Holdings became the leading independent brokerage and investment banking firm in Turkey soon after its establishment in 1990. The Company has played a vital role in the development of Turkish capital markets by paving the way for many of the country's leading businesses to meet international businesses for the first time. The Company transformed into an investment portfolio company in late 2004 drawing on its appetite for growing investments and its extensive investment banking experience.