

BRIEF CONTENTS

PART I INTRODUCTION TO FOREIGN EXCHANGE MARKETS AND RISKS 1

- Chapter 1 Globalization and the Multinational Corporation 1
- Chapter 2 The Foreign Exchange Market 36
- Chapter 3 Forward Markets and Transaction Exchange Risk 69
- Chapter 4 The Balance of Payments 101
- Chapter 5 Exchange Rate Systems 133

PART II INTERNATIONAL PARITY CONDITIONS AND EXCHANGE RATE DETERMINATION 173

- Chapter 6 Interest Rate Parity 173
- Chapter 7 Speculation and Risk in the Foreign Exchange Market 205
- Chapter 8 Purchasing Power Parity and Real Exchange Rates 246
- Chapter 9 Measuring and Managing Real Exchange Risk 281
- Chapter 10 Exchange Rate Determination and Forecasting 315

PART III INTERNATIONAL CAPITAL MARKETS 354

- Chapter 11 International Debt Financing 354
- Chapter 12 International Equity Financing 398
- Chapter 13 International Capital Market Equilibrium 428
- Chapter 14 Country and Political Risk 475

PART IV INTERNATIONAL CORPORATE FINANCE 521

- Chapter 15 International Capital Budgeting 521
- Chapter 16 Additional Topics in International Capital Budgeting 553
- Chapter 17 Risk Management and the Foreign Currency Hedging Decision 589
- Chapter 18 Financing International Trade 616
- Chapter 19 Managing Net Working Capital 642

PART V FOREIGN CURRENCY DERIVATIVES 671

- Chapter 20 Foreign Currency Futures and Options 671
- Chapter 21 Interest Rate and Foreign Currency Swaps 723

CONTENTS

Preface	xxiii
About the Authors	xxix

PART I INTRODUCTION TO FOREIGN EXCHANGE MARKETS AND RISKS 1

CHAPTER 1 Globalization and the Multinational Corporation 1

1.1	Introduction	1
1.2	Globalization and the Growth of International Trade and Capital Flows	2
	<i>The Growth of International Trade</i>	2
	<i>The Globalization of Financial Markets</i>	5
1.3	Multinational Corporations	9
	<i>How Multinational Corporations Enter Foreign Markets</i>	9
	<i>The Goals of an MNC</i>	11
	<i>Corporate Governance Around the World</i>	12
	<i>Multinational Corporations and Foreign Direct Investment</i>	16
1.4	Other Important International Players	18
	<i>International Banks</i>	18
	<i>International Institutions</i>	18
	<i>Governments</i>	21
	<i>Individual and Institutional Investors</i>	22
1.5	Globalization and the Multinational Firm: Benefactor or Menace?	23
	<i>A Rocky Road to Free Trade</i>	23
	<i>Do International Capital Flows Cause Havoc?</i>	25
	<i>The Anti-Globalist Movement and MNCs</i>	26
	<i>Some Final Thoughts on Globalization</i>	28
1.6	Overview of the Book	28
	<i>Part I: Introduction to Foreign Exchange Markets and Risks</i>	29
	<i>Part II: International Parity Conditions and Exchange Rate Determination</i>	29
	<i>Part III: International Capital Markets</i>	29
	<i>Part IV: International Corporate Finance</i>	30
	<i>Part V: Foreign Currency Derivatives</i>	30
	<i>A Final Introduction</i>	30
1.7	Summary	32
	Questions	33
	Problems	33
	Bibliography	34

CHAPTER 2 The Foreign Exchange Market 36

2.1	The Organization of the Foreign Exchange Market	36
	<i>Size of the Market</i>	38
	<i>Types of Contracts Traded</i>	39

<i>Foreign Exchange Dealers</i>	39
<i>Foreign Exchange Brokers</i>	39
<i>Other Participants in the Forex Market</i>	40
<i>Electronic Foreign Exchange Trading (eFX)</i>	40
<i>The Competitive Marketplace</i>	42
2.2 Currency Quotes and Prices	43
<i>Exchange Rates</i>	44
<i>Exchange Rate Quotes</i>	44
<i>Vehicle Currencies and Currency Cross-Rates</i>	47
<i>Triangular Arbitrage</i>	49
2.3 Inside the Interbank Market I: Bid–Ask Spreads and Bank Profits	52
<i>Bid–Ask Spreads</i>	52
<i>The Magnitude of Bid–Ask Spreads</i>	53
2.4 Inside the Interbank Market II: Communications and Fund Transfers	57
<i>Communication Systems</i>	57
<i>Cross-Currency Settlement (or Herstatt) Risk</i>	58
2.5 Describing Changes in Exchange Rates	61
<i>Rates of Appreciation and Depreciation</i>	63
<i>Continuously Compounded Rates of Appreciation (Advanced)</i>	64
2.6 Summary	65
Questions	66
Problems	66
Bibliography	67
Appendix: Logarithms	67

CHAPTER 3 Forward Markets and Transaction Exchange Risk 69

3.1 Transaction Exchange Risk	70
3.2 Describing Uncertain Future Exchange Rates	71
<i>Assessing Exchange Rate Uncertainty Using Historical Data</i>	71
<i>The Probability Distribution of Future Exchange Rates</i>	74
3.3 Hedging Transaction Exchange Risk	76
<i>Forward Contracts and Hedging</i>	76
<i>The Costs and Benefits of a Forward Hedge</i>	79
<i>Examples of Using Forward Contracts to Hedge Transaction Risk</i>	80
3.4 The Forward Foreign Exchange Market	83
<i>Market Organization</i>	83
<i>Forward Contract Maturities and Value Dates</i>	84
<i>Forward Market Bid–Ask Spreads</i>	85
<i>Net Settlement</i>	88
<i>The Foreign Exchange Swap Market</i>	89
3.5 Forward Premiums and Discounts	91
<i>Sizes of Forward Premiums or Discounts</i>	92
<i>Forward Premiums and Swap Points</i>	92
3.6 Changes in Exchange Rate Volatility (Advanced)	93
<i>Volatility Clustering</i>	93
3.7 Summary	96
Questions	96
Problems	96

Bibliography	97
Appendix: A Statistics Refresher	98

CHAPTER 4 The Balance of Payments 101

4.1	The Balance of Payments: Concepts and Terminology	101
	<i>Major Accounts of the Balance of Payments</i>	102
	<i>A Double-Entry Accounting System</i>	103
	<i>Current Account Transactions</i>	103
	<i>Capital Account Transactions</i>	106
	<i>Official Reserves Account Transactions</i>	107
4.2	Surpluses and Deficits in the Balance of Payments Accounts	108
	<i>An Important Balance of Payments Identity</i>	108
	<i>The U.S. Current Account</i>	109
	<i>The U.S. Capital and Financial Accounts</i>	110
	<i>Balance of Payment Deficits and Surpluses and the Official Settlements Account</i>	113
	<i>Balance of Payment Statistics Around the World</i>	114
4.3	The Dynamics of the BOP	115
	<i>The Trade Account and the Investment Income Account</i>	115
	<i>Countries as Net Creditors or Net Debtors</i>	116
	<i>The U.S. Net International Investment Position</i>	117
4.4	Savings, Investment, Income, and the BOP	119
	<i>Linking the Current Account to National Income</i>	119
	<i>National Savings, Investment, and the Current Account</i>	120
	<i>Current Accounts and Government Deficits</i>	120
	<i>What Causes Current Account Deficits and Surpluses?</i>	121
	<i>Assessing the Openness of International Capital Markets</i>	125
4.5	Summary	126
	Questions	128
	Problems	128
	Bibliography	130
	Appendix: A Primer on National Income and Product Accounts	130

CHAPTER 5 Exchange Rate Systems 133

5.1	Alternative Exchange Rate Arrangements and Currency Risk	133
	<i>Exchange Rate Systems Around the World</i>	133
	<i>Currency Risks in Alternative Exchange Rate Systems</i>	136
	<i>Trends in Currency Systems</i>	140
5.2	Central Banks	140
	<i>The Central Bank's Balance Sheet</i>	141
	<i>Foreign Exchange Interventions</i>	144
	<i>How Do Central Banks Peg a Currency?</i>	146
5.3	Flexible Exchange Rate Systems	148
	<i>The Effects of Central Bank Interventions</i>	148
	<i>Empirical Evidence on the Effectiveness of Interventions</i>	150
5.4	Fixed Exchange Rate Systems	151
	<i>The International Monetary System Before 1971: A Brief History</i>	151
	<i>Pegged Exchange Rate Systems in Developing Countries</i>	153
	<i>Why Not Simply Float?</i>	156
	<i>Currency Boards</i>	157
	<i>Dollarization</i>	158

5.5	Limited-Flexibility Systems: Target Zones and Crawling Pegs	159
	<i>Target Zones</i>	159
	<i>Crawling Pegs</i>	162
5.6	How to See an Emu Fly: The Road to Monetary Integration in Europe	164
	<i>The European Monetary System (EMS)</i>	164
	<i>ECUs, Euros, and Franken</i>	165
	<i>Was the EMS Successful?</i>	166
	<i>The Maastricht Treaty and the Euro</i>	167
	<i>Pros and Cons of a Monetary Union</i>	168
5.7	Summary	170
	Questions	171
	Problems	171
	Bibliography	172

PART II INTERNATIONAL PARITY CONDITIONS AND EXCHANGE RATE DETERMINATION 173

CHAPTER 6 Interest Rate Parity 173

6.1	The Theory of Covered Interest Rate Parity	173
	<i>The Intuition Behind Interest Rate Parity</i>	175
	<i>Deriving Interest Rate Parity</i>	177
	<i>Covered Interest Arbitrage</i>	179
6.2	Covered Interest Rate Parity in Practice	182
	<i>The External Currency Market</i>	182
	<i>Covered Interest Arbitrage with Transaction Costs (Advanced)</i>	184
	<i>Does Covered Interest Parity Hold?</i>	186
6.3	Why Deviations from Interest Rate Parity May Seem to Exist	187
	<i>Default Risks</i>	187
	<i>Exchange Controls</i>	190
	<i>Political Risk</i>	191
6.4	Hedging Transaction Risk in the Money Market	193
	<i>Hedging a Foreign Currency Liability</i>	194
	<i>Hedging a Foreign Currency Receivable</i>	194
6.5	The Term Structure of Forward Premiums and Discounts	195
	<i>The Term Structure of Interest Rates</i>	196
	<i>Long-Term Forward Rates and Premiums</i>	199
6.6	Summary	201
	Questions	202
	Problems	202
	Bibliography	204

CHAPTER 7 Speculation and Risk in the Foreign Exchange Market 205

7.1	Speculating in the Foreign Exchange Market	205
	<i>Uncovered Foreign Money Market Investments</i>	205
	<i>Speculating with Forward Contracts</i>	207
	<i>Currency Speculation and Profits and Losses</i>	208

7.2	Uncovered Interest Rate Parity and the Unbiasedness Hypothesis	211
	<i>Uncovered Interest Rate Parity</i>	211
	<i>The Unbiasedness Hypothesis</i>	212
7.3	Risk Premiums in the Foreign Exchange Market	214
	<i>What Determines Risk Premiums?</i>	214
	<i>Formal Derivation of CAPM Risk Premiums (Advanced)</i>	217
7.4	Uncovered Interest Rate Parity and the Unbiasedness Hypothesis in Practice	218
	<i>Situations Where Premiums Matter</i>	218
7.5	Empirical Evidence on the Unbiasedness Hypothesis	221
	<i>The Quest for a Test</i>	221
	<i>A Test Using the Sample Means</i>	222
	<i>Regression Tests of the Unbiasedness of Forward Rates</i>	224
7.6	Alternative Interpretations of the Test Results	227
	<i>Market Inefficiency</i>	227
	<i>Risk Premiums</i>	230
	<i>Problems Interpreting the Statistics</i>	232
	<i>Swedish Interest Rates of 500%</i>	234
7.7	Summary	236
	Questions	237
	Problems	238
	Bibliography	239
	Appendix 7.1: The Siegel Paradox	240
	Appendix 7.2: The Portfolio Diversification Argument and the CAPM	241
	Appendix 7.3: A Regression Refresher	243
CHAPTER 8 Purchasing Power Parity and Real Exchange Rates		246
8.1	Price Levels, Price Indexes, and the Purchasing Power of a Currency	247
	<i>The General Idea of Purchasing Power</i>	247
	<i>Calculating the Price Level</i>	247
	<i>Calculating a Price Index</i>	247
	<i>Internal Purchasing Power</i>	249
	<i>External Purchasing Power</i>	249
8.2	Absolute Purchasing Power Parity	250
	<i>The Theory of Absolute Purchasing Power Parity</i>	250
	<i>Goods Market Arbitrage</i>	250
8.3	The Law of One Price	251
	<i>The Perfect Market Ideal</i>	251
	<i>Why Violations of the Law of One Price Occur</i>	252
	<i>How Wide Is the Border?</i>	254
8.4	Describing Deviations from PPP	257
	<i>Overvaluations and Undervaluations of Currencies</i>	257
	<i>Predictions Based on Overvaluations and Undervaluations</i>	258
	<i>The MacPPP Standard</i>	258
8.5	Exchange Rates and Absolute PPPs Using CPI Data	261
	<i>Interpreting the Charts</i>	261
	<i>Analyzing the Data</i>	262

8.6	Explaining the Failure of Absolute PPP	266
	<i>Changes in Relative Prices</i>	266
	<i>Non-Traded Goods</i>	267
	<i>PPP Deviations and the Balance of Payments</i>	268
8.7	Comparing Incomes Across Countries	268
	<i>Comparing Incomes in New York and Tokyo</i>	268
	<i>Comparing GDPs Using PPP Exchange Rates</i>	269
8.8	Relative Purchasing Power Parity	271
	<i>A General Expression for Relative PPP</i>	272
	<i>Relative PPP with Continuously Compounded Rates of Change (Advanced)</i>	273
8.9	The Real Exchange Rate	274
	<i>The Definition of the Real Exchange Rate</i>	274
	<i>Real Appreciations and Real Depreciations</i>	275
	<i>Trade-Weighted Real Exchange Rates</i>	277
8.10	Summary	278
	Questions	278
	Problems	279
	Bibliography	280

CHAPTER 9 Measuring and Managing Real Exchange Risk 281

9.1	How Real Exchange Rates Affect Real Profitability	281
	<i>The Real Profitability of an Exporting Firm</i>	282
9.2	Real Exchange Risk at Exporters, Importers, and Domestic Firms	283
	<i>The Real Exchange Rate Risk of a Net Exporter</i>	284
	<i>The Real Exchange Risk of a Net Importer</i>	285
	<i>The Real Exchange Risk of an Import Competitor</i>	287
	<i>Measuring Real Exchange Risk Exposure</i>	287
9.3	Sharing the Real Exchange Risk: An Example	290
	<i>Safe Air Evaluates an International Supply Contract</i>	290
	<i>Basic Data and Analysis</i>	291
	<i>Analyzing Contracts When Inflation and Real Exchange Rates Are Changing</i>	293
	<i>Designing a Contract That Shares the Real Exchange Risk</i>	294
	<i>Would the Redesigned Contract Be Adopted?</i>	295
9.4	Pricing-to-Market Strategies	296
	<i>Pricing-to-Market by a Monopolist</i>	296
	<i>A Monopolistic Net Importer</i>	299
	<i>Empirical Evidence on Pricing-to-Market</i>	301
9.5	Evaluating the Performance of a Foreign Subsidiary	302
	<i>Three Types of Subsidiaries</i>	303
	<i>Initial Operating Profitability</i>	303
	<i>Actual Versus Forecasted Operating Results</i>	304
	<i>Comparing the Optimal Response with No Response by Managers</i>	305
	<i>Who Deserves a Bonus?</i>	307
	<i>Assessing the Long-Run Viability of a Subsidiary</i>	308
9.6	Strategies for Managing Real Exchange Risk	309
	<i>Transitory Versus Permanent Changes in Real Exchange Rates</i>	309
	<i>Production Management</i>	309
	<i>Marketing Management</i>	311
9.7	Summary	313

Questions	313
Problems	313
Bibliography	314

CHAPTER 10 Exchange Rate Determination and Forecasting 315

10.1 Parity Conditions and Exchange Rate Forecasts	315
<i>The Fisher Hypothesis</i>	316
<i>The International Parity Conditions</i>	318
<i>Real Interest Rates and the Parity Conditions</i>	320
10.2 Currency Forecasting Techniques	321
<i>Fundamental Exchange Rate Forecasting</i>	321
<i>Exchange Rate Forecasting with Technical Analysis</i>	322
<i>Evaluating Forecasts</i>	323
10.3 Fundamental Exchange Rate Forecasting	325
<i>Forecasting Performance of Fundamental Exchange Rate Models</i>	326
<i>The Asset Market Approach to Exchange Rate Determination</i>	326
<i>The Real Exchange Rate, the Real Interest Rate Differential, and the Current Account</i>	329
<i>PPP-Based Forecasts</i>	333
10.4 Technical Analysis	334
<i>Pure Technical Analysis: Chartism</i>	334
<i>Filter Rules</i>	336
<i>Regression Analysis</i>	337
<i>Non-Linear Models</i>	338
<i>Evaluating Forecasting Services</i>	340
10.5 Predicting Devaluations	341
<i>What Causes a Currency Crisis?</i>	341
<i>Empirical Evidence on the Predictability of Currency Crises</i>	343
<i>The Rocky 1990s: Currency Crises Galore</i>	343
10.6 Summary	348
Questions	349
Problems	349
Bibliography	352

PART III INTERNATIONAL CAPITAL MARKETS 354

CHAPTER 11 International Debt Financing 354

11.1 The Global Sources of Funds for International Firms	354
<i>The Financing Mix Around the World</i>	355
11.2 The Characteristics of Debt Instruments	356
<i>Currency of Denomination</i>	356
<i>Maturity</i>	358
<i>The Nature of Interest Rate Payments: Fixed-Rate Versus Floating-Rate Debt</i>	359
<i>Tradability of Debt</i>	361
<i>The International Character of Debt</i>	361
11.3 A Tour of the World's Bond Markets	362
<i>Size and Structure of the World Bond Market</i>	362
<i>The International Bond Market</i>	364
<i>The Types of Debt Instruments in the International Bond Market</i>	367

11.4	International Banking	371
	<i>Banks as MNCs</i>	372
	<i>Types of International Banking Offices</i>	374
	<i>International Banking Regulation</i>	376
11.5	International Bank Loans	379
	<i>Eurocredits</i>	379
	<i>The Euronote Market</i>	383
	<i>The Major Debt Arrangers</i>	384
11.6	Comparing the Costs of Debt	384
	<i>The All-in-Cost Principle</i>	385
	<i>Minimizing the Cost of Debt Internationally</i>	388
11.7	Summary	394
	Questions	395
	Problems	396
	Bibliography	397
CHAPTER 12 International Equity Financing		398
12.1	A Tour of International Stock Markets	398
	<i>The Size of Stock Markets</i>	398
	<i>The Organization and Operation of Stock Markets</i>	404
	<i>Turnover and Transaction Costs</i>	408
12.2	International Cross-Listing and Depositary Receipts	411
	<i>American Depositary Receipts</i>	413
	<i>Global Depositary Receipts</i>	416
12.3	The Advantages and Disadvantages of Cross-Listing	419
	<i>Why Firms Choose to Cross-List</i>	421
	<i>Why Firms Decide Against Cross-Listing</i>	423
12.4	Strategic Alliances	424
12.5	Summary	425
	Questions	425
	Problems	426
	Bibliography	426
CHAPTER 13 International Capital Market Equilibrium		428
13.1	Risk and Return of International Investments	429
	<i>The Two Risks of Investing Abroad</i>	429
	<i>The Volatility of International Investments</i>	430
	<i>Expected Returns</i>	432
	<i>Sharpe Ratios</i>	433
13.2	The Benefits of International Diversification	433
	<i>Risk Reduction Through International Diversification</i>	433
	<i>The Effect of International Diversification on Sharpe Ratios</i>	437
13.3	Optimal Portfolio Allocation	439
	<i>Preferences</i>	440
	<i>The Case of One Risky Asset</i>	440
	<i>The Mean–Standard Deviation Frontier</i>	443
13.4	The Capital Asset Pricing Model	446
	<i>Assumptions and Origins</i>	446
	<i>A Derivation of the CAPM (Advanced)</i>	446
	<i>Interpreting the CAPM</i>	447
	<i>Domestic Versus World CAPMs</i>	449

13.5	The CAPM in Practice	451
	<i>A Recipe for the Cost of Equity Capital</i>	451
	<i>The Benchmark Problem</i>	452
	<i>Beta Estimation</i>	454
	<i>The Risk Premium on the Market</i>	455
13.6	Integrated Versus Segmented Markets	457
	<i>Investing in Emerging Markets</i>	457
	<i>The Cost of Capital in Integrated and Segmented Markets</i>	458
	<i>Segmentation and Integration over Time</i>	461
	<i>Home Bias and Its Implications</i>	463
13.7	Alternative Cost-of-Capital Models	466
	<i>The Usefulness of the CAPM</i>	466
	<i>Factor Models and the Fama-French Model</i>	467
13.8	Summary	469
	Questions	470
	Problems	471
	Bibliography	472
	Appendix: The Mathematics of International Diversification	474

CHAPTER 14 Country and Political Risk 475

14.1	Country Risk Versus Political Risk	475
	<i>Country Risk</i>	475
	<i>Political Risk Factors</i>	476
	<i>The Debt Crisis</i>	479
14.2	Incorporating Political Risk in Capital Budgeting	484
	<i>Adjusting Expected Cash Flows for Political Risk</i>	484
	<i>Adjusting the Discount Rate Instead of Cash Flows</i>	487
14.3	Country and Political Risk Analysis	489
	<i>Country Risk Ratings</i>	489
	<i>The PRS Group's ICRG Rating System</i>	492
	<i>Country Credit Spreads</i>	495
	<i>Computing Political Risk Probabilities</i>	508
14.4	Managing Political Risk	509
	<i>Structuring an Investment</i>	509
	<i>Insurance</i>	510
	<i>Project Finance</i>	514
14.5	Summary	517
	Questions	518
	Problems	518
	Bibliography	519

PART IV INTERNATIONAL CORPORATE FINANCE 521

CHAPTER 15 International Capital Budgeting 521

15.1	An Overview of Adjusted Net Present Value	521
	<i>Step 1: Discount the Cash Flows of the All-Equity Firm</i>	522
	<i>Step 2: Add the Value of the Financial Side Effects</i>	523
	<i>Step 3: Value Any Real Options</i>	523

15.2	Deriving the NPV of Free Cash Flow	523
	<i>Incremental Profit</i>	524
	<i>Deriving Free Cash Flow</i>	525
	<i>Discounting Free Cash Flows</i>	526
15.3	Financial Side Effects	528
	<i>The Costs of Issuing Securities</i>	528
	<i>Tax Shields for Certain Securities</i>	528
	<i>The Discount Rate for Interest Tax Shields</i>	529
	<i>Costs of Financial Distress</i>	529
	<i>The Equilibrium Amount of Debt</i>	530
	<i>Subsidized Financing</i>	530
15.4	Real Options	531
	<i>Problems with the Discounted Cash Flow Approach</i>	533
15.5	Parent Versus Subsidiary Cash Flows	534
	<i>A Three-Step Approach to Determining the Value of a Foreign Subsidiary</i>	535
15.6	The Case of International Wood Products	535
	<i>IWPI-Spain's Free Cash Flows</i>	536
	<i>The Parent Company's Perspective</i>	540
	<i>Valuing the Financial Side Effects</i>	545
	<i>The Full ANPV of IWPI-Spain</i>	547
	<i>Cannibalization of Export Sales</i>	548
15.7	Summary	549
	Questions	550
	Problems	550
	Bibliography	552
	Appendix: Deriving the Value of a Perpetuity	552
CHAPTER 16 Additional Topics in International Capital Budgeting 553		
16.1	Alternative Approaches to Capital Budgeting	554
	<i>The ANPV Approach</i>	554
	<i>Two Valuation Alternatives to ANPV</i>	554
	<i>The WACC Approach to Capital Budgeting</i>	554
	<i>The Flow-to-Equity Method of Capital Budgeting</i>	559
	<i>The Pros and Cons of Alternative Capital Budgeting Methods</i>	561
16.2	Forecasting Cash Flows of Foreign Projects	561
	<i>The Choice of Currency</i>	561
	<i>Reconciling the Two Methods for Discounting Foreign Cash Flows</i>	562
16.3	Case Study: CMTC's Australian Project	563
	<i>The Australian Investment Proposal</i>	563
	<i>Gathering the Economic Data</i>	564
	<i>Discounted Cash Flows</i>	565
	<i>Case Solution</i>	565
	<i>The Expected Real Depreciation of the Australian Dollar</i>	571
16.4	Terminal Value When Return on Investment Equals r_{WACC}	572
	<i>Equilibrium Rate of Return on Investment</i>	573
	<i>Terminal Value with Perpetual Growth and with Expected Inflation</i>	575
16.5	Tax Shields on Foreign Currency Borrowing	577
	<i>The Tax Implications of Borrowing in a Foreign Currency</i>	578
	<i>Foreign Currency Borrowing by Banana Computers</i>	578

16.6	Conflicts Between Bondholders and Stockholders	582
	<i>The Incentive to Take Risks</i>	582
	<i>The Underinvestment Problem</i>	583
	<i>Other Managerial Problems Caused by Financial Distress</i>	585
16.7	International Differences in Accounting Standards	585
	<i>Empirical Effects of IFRS Adoption</i>	586
16.8	Summary	586
	Questions	587
	Problems	587
	Bibliography	588

CHAPTER 17 Risk Management and the Foreign Currency Hedging Decision 589

17.1	To Hedge or Not to Hedge	590
	<i>Hedging in an Entrepreneurial Venture</i>	590
	<i>Hedging in a Modern Corporation</i>	590
	<i>The Hedging-Is-Irrelevant Logic of Modigliani and Miller</i>	591
17.2	Arguments Against Hedging	592
	<i>Hedging Is Costly</i>	592
	<i>Hedging Equity Risk Is Difficult, if Not Impossible</i>	593
	<i>Hedging Can Create Bad Incentives</i>	598
17.3	Arguments for Hedging	598
	<i>Hedging Can Reduce the Firm's Expected Taxes</i>	598
	<i>Hedging Can Lower the Costs of Financial Distress</i>	603
	<i>Hedging Can Improve the Firm's Future Investment Decisions</i>	603
	<i>Hedging Can Change the Assessment of a Firm's Managers</i>	604
17.4	The Hedging Rationale of Real Firms	605
	<i>Merck's Hedging Rationale</i>	606
	<i>Analysis of Hedging at HDG Inc.</i>	608
17.5	Hedging Trends	610
	<i>Information from Surveys</i>	610
	<i>Empirical Analysis of Why Firms Hedge</i>	611
	<i>Financial Effects of Hedging</i>	611
	<i>To Hedge or Not to Hedge: Understanding Your Competitors</i>	612
17.6	Summary	612
	Questions	613
	Problems	613
	Bibliography	614

CHAPTER 18 Financing International Trade 616

18.1	The Fundamental Problem with International Trade	616
18.2	International Trade Documents	618
	<i>Bills of Lading</i>	618
	<i>Commercial Invoices</i>	620
	<i>Packing Lists</i>	620
	<i>Insurance</i>	620
	<i>Consular Invoice</i>	621
	<i>Certificates of Analysis</i>	621
18.3	Methods of Payment	621
	<i>Cash in Advance</i>	621
	<i>Documentary Credits</i>	622

	<i>Documentary Collections</i>	627
	<i>Sales on Open Account</i>	628
18.4	Financing Exports	629
	<i>Bank Line of Credit</i>	629
	<i>Banker's Acceptances</i>	630
	<i>Buyer Credit</i>	630
	<i>Selling Accounts Receivable</i>	631
	<i>Limited-Recourse Financing: Forfaiting</i>	631
	<i>Export Factoring</i>	632
	<i>Government Sources of Export Financing and Credit Insurance</i>	634
18.5	Countertrade	637
	<i>Transactions Without Money</i>	637
	<i>Countertrade Involving Money or Credit</i>	638
18.6	Summary	639
	Questions	640
	Bibliography	641

CHAPTER 19 Managing Net Working Capital 642

19.1	The Purpose of Net Working Capital	642
	<i>Inventories as Assets</i>	643
	<i>Other Current Assets</i>	643
	<i>Short-Term Liabilities</i>	643
19.2	International Cash Management	644
	<i>Constraints on International Cash Management</i>	644
	<i>Cash Management with a Centralized Pool</i>	644
19.3	Cash Transfers from Affiliates to Parents	650
	<i>International Dividend Cash Flows</i>	651
	<i>International Royalty and Management-Fee Cash Flows</i>	652
	<i>Transfer Pricing and Cash Flows</i>	653
19.4	Managing Accounts Receivable	660
	<i>Currency of Denomination</i>	660
	<i>Leading and Lagging Payments</i>	663
	<i>Credit Terms</i>	664
19.5	Inventory Management	665
	<i>Optimal Inventory Theory</i>	665
19.6	Summary	668
	Questions	669
	Problems	669
	Bibliography	670

PART V FOREIGN CURRENCY DERIVATIVES 671

CHAPTER 20 Foreign Currency Futures and Options 671

20.1	The Basics of Futures Contracts	671
	<i>Futures Versus Forwards</i>	671
	<i>The Pricing of Futures Contracts</i>	675
20.2	Hedging Transaction Risk with Futures	678
	<i>Hedging at Nancy Foods</i>	678
	<i>Potential Problems with a Futures Hedge</i>	679

20.3	Basics of Foreign Currency Option Contracts	683
	<i>Basic Option Terminology</i>	683
	<i>Options Trading</i>	685
20.4	The Use of Options in Risk Management	689
	<i>A Bidding Situation at Bagwell Construction</i>	689
	<i>Using Options to Hedge Transaction Risk</i>	690
	<i>Hedging with Options as Buying Insurance</i>	695
	<i>Speculating with Options</i>	699
	<i>Options Valuation</i>	701
20.5	Combinations of Options and Exotic Options	706
	<i>Range Forwards and Cylinder Options</i>	707
	<i>Other Exotic Options</i>	708
20.6	Summary	711
	Questions	711
	Problems	712
	Bibliography	713
	Appendix: Foreign Currency Option Pricing (Advanced)	714
CHAPTER 21	Interest Rate and Foreign Currency Swaps	723
21.1	Introduction to Swaps	723
	<i>Parallel Loans and Back-to-Back Loans</i>	724
	<i>Basic Aspects of Currency Swaps and Interest Rate Swaps</i>	725
	<i>The Size of the Swap Markets</i>	726
	<i>Credit Default Swaps and the Financial Crisis</i>	727
21.2	Interest Rate Swaps	728
	<i>Why Use Interest Rate Swaps?</i>	728
	<i>The Nature of Interest Rate Swap Contracts</i>	730
	<i>Dealing with Credit Risks</i>	732
21.3	Foreign Currency Swaps	732
	<i>The Mechanics of Modern Currency Swaps</i>	734
	<i>Comparative Borrowing Advantages in Matched Currency Swaps</i>	735
	<i>Swapping Bond Proceeds and Coupon Rates with Quoted Swap Rates</i>	741
	<i>Currency Swaps as a Package of Forward Contracts</i>	745
	<i>The Value of a Currency Swap</i>	747
	<i>The Rationale for Currency Swaps</i>	748
21.4	Summary	749
	Questions	749
	Problems	750
	Bibliography	751
	Glossary	753
	Index	771