Brief Contents

Payments 157

PART 1 Introduction to International Macroeconomics		Chapter 6	Balance of Payments I: The Gains from Financial Globalization 199
Chapter 1	The Global Macroeconomy 1	Chapter 7	Balance of Payments II: Output, Exchange Rates, and Macroeconomic
PART 2 Exchange Rates			Policies in the Short Run 253
Chapter 2	Introduction to Exchange Rates and the Foreign Exchange Market 25	PART 4 Applications and Policy Issues	
Chapter 3	Exchange Rates I: The Monetary Approach in the Long Run 63	Chapter 8	Fixed Versus Floating: International Monetary Experience 305
Chapter 4		Chapter 9	Exchange Rate Crises: How Pegs Work and How They Break 347
		Chapter 10	The Euro 401
PART 3 The Balance of Payments		Chapter 11	Topics in International
Chapter 5	National and International Accounts:		Macroeconomics 449
	Income, Wealth, and the Balance of	Indov	14

Contents

Preface xx

CHAPTER 1 The Global Macroeconomy 1

1 Foreign Exchange: Currencies and Crises 2

How Exchange Rates Behave 3 Why Exchange Rates Matter 4 When Exchange Rates Misbehave 5 Summary and Plan of Study 6

HEADLINES Economic Crisis in Iceland 7

2 Globalization of Finance: Debts and Deficits 8

Deficits and Surpluses: The Balance of Payments 8

Debtors and Creditors: External Wealth 11

Darlings and Deadbeats: Defaults and Other Risks 12

Summary and Plan of Study 13

3 Government and Institutions: Policies and Performance 14

Integration and Capital Controls: The Regulation of International Finance 14

Independence and Monetary Policy: The Choice of Exchange Rate Regimes 16

Institutions and Economic Performance: The Quality of Governance 17 Summary and Plan of Study 19

HEADLINES The Wealth of Nations 19

4 Conclusions 21

Key Points, Key Terms, and Problems

CHAPTER 2 Introduction to Exchange Rates and the Foreign Exchange Market 25

1 Exchange Rate Essentials 26

Defining the Exchange Rate 26

Appreciations and Depreciations 28

Multilateral Exchange Rates 30

Example: Using Exchange Rates to Compare Prices in a Common Currency 31

PART 1

Introduction to International Macroeconomics

PART 2 Exchange Rates

2 Exchange Rates in Practice 33

Exchange Rate Regimes: Fixed Versus Floating 33

APPLICATION Recent Exchange Rate Experiences 34

3 The Market for Foreign Exchange 39

The Spot Contract 39

Transaction Costs 40

Derivatives 40

APPLICATION Foreign Exchange Derivatives 41

Private Actors 42

Government Actions 42

4 Arbitrage and Spot Exchange Rates 43

Arbitrage with Two Currencies 44

Arbitrage with Three Currencies 45

Cross Rates and Vehicle Currencies 46

5 Arbitrage and Interest Rates 47

Riskless Arbitrage: Covered Interest Parity 47

APPLICATION Evidence on Covered Interest Parity 49

Risky Arbitrage: Uncovered Interest Parity 50

SIDE BAR Assets and Their Attributes 51

APPLICATION Evidence on Uncovered Interest Parity 53

Uncovered Interest Parity: A Useful Approximation 54

Summary 56

6 Conclusions 56

Key Points, Key Terms, and Problems

CHAPTER 3 Exchange Rates I: The Monetary Approach in the Long Run 63

1 Exchange Rates and Prices in the Long Run: Purchasing Power Parity and Goods Market Equilibrium 64

The Law of One Price 65

Purchasing Power Parity 66

The Real Exchange Rate 67

Absolute PPP and the Real Exchange Rate 67

Absolute PPP, Prices, and the Nominal Exchange Rate 68

Relative PPP, Inflation, and Exchange Rate Depreciation 68

Summary 70

APPLICATION Evidence for PPP in the Long Run and Short Run 70

How Slow Is Convergence to PPP? 71

What Explains Deviations from PPP? 72

SIDE BAR Forecasting When the Real Exchange Rate Is Undervalued or Overvalued 73

HEADLINES The Big Mac Index 74

2 Money, Prices, and Exchange Rates in the Long Run: Money Market Equilibrium in a Simple Model 76

What Is Money? 76

The Measurement of Money 76

The Supply of Money 77

The Demand for Money: A Simple Model 78

Equilibrium in the Money Market 79

A Simple Monetary Model of Prices 79

A Simple Monetary Model of the Exchange Rate 80

Money Growth, Inflation, and Depreciation 81

3 The Monetary Approach: Implications and Evidence 82

Exchange Rate Forecasts Using the Simple Model 82

APPLICATION Evidence for the Monetary Approach 85

APPLICATION Hyperinflations 86

SIDE BAR Currency Reform 87

4 Money, Interest Rates, and Prices in the Long Run: A General Model 89

HEADLINES The First Hyperinflation of the Twenty-First Century 90

The Demand for Money: The General Model 90

Long-Run Equilibrium in the Money Market 91

Inflation and Interest Rates in the Long Run 92

The Fisher Effect 93

Real Interest Parity 94

APPLICATION Evidence on the Fisher Effect 95

The Fundamental Equation Under the General Model 96

Exchange Rate Forecasts Using the General Model 97

5 Monetary Regimes and Exchange Rate Regimes 99

The Long Run: The Nominal Anchor 100

APPLICATION Nominal Anchors in Theory and Practice 102

6 Conclusions 104

Key Points, Key Terms, and Problems

CHAPTER 4 Exchange Rates II: The Asset Approach in the Short Run 111

1 Exchange Rates and Interest Rates in the Short Run: UIP and FX Market Equilibrium 112

Risky Arbitrage 112

Equilibrium in the FX Market: An Example 114

Adjustment to Forex Market Equilibrium 115

Changes in Domestic and Foreign Returns and FX Market Equilibrium 116 Summary 118

2 Interest Rates in the Short Run: Money Market Equilibrium 118

Money Market Equilibrium in the Short Run: How Nominal Interest Rates Are Determined 118

Money Market Equilibrium in the Short Run: Graphical Solution 120

Adjustment to Money Market Equilibrium in the Short Run 120

Another Building Block: Short-Run Money Market Equilibrium 121

Changes in Money Supply and the Nominal Interest Rate 121

APPLICATION Can Central Banks Always Control the Interest Rate?

A Lesson from the Crisis of 2008-2009 123

Changes in Real Income and the Nominal Interest Rate 124

The Monetary Model: The Short Run Versus the Long Run 124

3 The Asset Approach: Applications and Evidence 125

The Asset Approach to Exchange Rates: Graphical Solution 125 Short-Run Policy Analysis 127

APPLICATION The Rise and Fall of the Dollar, 1999–2004 130

4 A Complete Theory: Unifying the Monetary and Asset Approaches 131

Long-Run Policy Analysis 132

SIDE BAR Confessions of a Foreign Exchange Trader 134

Overshooting 138

SIDE BAR Overshooting in Practice 140

5 Fixed Exchange Rates and the Trilemma 141

What Is a Fixed Exchange Rate Regime? 141

Pegging Sacrifices Monetary Policy Autonomy in the Short Run: Example 141

Pegging Sacrifices Monetary Policy Autonomy in the Long Run: Example 143

The Trilemma 144

SIDE BAR Intermediate Regimes 146

APPLICATION The Trilemma in Europe 147

APPLICATION News and the Foreign Exchange Market in Wartime 148

Key Points, Key Terms, and Problems

CHAPTER 5 National and International Accounts: Income, Wealth, and the Balance of Payments 157

1 Measuring Macroeconomic Activity: An Overview 158

The Flow of Payments in a Closed Economy: Introducing the National Income and Product Accounts 158

The Flow of Payments in an Open Economy: Incorporating the Balance of Payments Accounts 160

2 Income, Product, and Expenditure 163

Three Approaches to Measuring Economic Activity 163

From GNE to GDP: Accounting for Trade in Goods and Services 163

From GDP to GNI: Accounting for Trade in Factor Services 164

APPLICATION Celtic Tiger or Tortoise? 165

From GNI to GNDI: Accounting for Transfers of Income 167

What the National Economic Aggregates Tell Us 168

HEADLINES Are Rich Countries "Stingy" with Foreign Aid? 169

Understanding the Data for the National Economic Aggregates 170 What the Current Account Tells Us 172

APPLICATION Global Imbalances 173

3 The Balance of Payments 178

Accounting for Asset Transactions: The Financial Account 178

Accounting for Asset Transactions: The Capital Account 178

Accounting for Home and Foreign Assets 179

How the Balance of Payments Accounts Work: A Macroeconomic View 180

How the Balance of Payments Accounts Work: A Microeconomic View 181

SIDE BAR The Double-Entry Principle in the Balance of Payments 182

Understanding the Data for the Balance of Payments Account 183 What the Balance of Payments Account Tells Us 185

4 External Wealth 186

The Level of External Wealth 187 Changes in External Wealth 187 Understanding the Data on External Wealth 189 What External Wealth Tells Us 191

PART 3 The Balance of Payments

SIDE BAR Beware of Greeks Bearing Statistics 191
Key Points, Key Terms, and Problems

Appendix to Chapter 5 197

CHAPTER 6 Balance of Payments I: The Gains from Financial Globalization 199

1 The Limits on How Much a Country Can Borrow: The Long-Run Budget Constraint 201

How The Long-Run Budget Constraint Is Determined 202
The Budget Constraint in a Two-Period Example 203
A Long-Run Example: The Perpetual Loan 205
Implications of the LRBC for Gross National Expenditure and Gross
Domestic Product 206
Summary 207

APPLICATION The Favorable Situation of the United States 207
APPLICATION The Difficult Situation of the Emerging Markets 210

2 Gains from Consumption Smoothing 212

The Basic Model 213

Consumption Smoothing: A Numerical Example and Generalization 213 Summary: Save for a Rainy Day 217

SIDE BAR Wars and the Current Account 217

APPLICATION Consumption Volatility and Financial Openness 218

APPLICATION Precautionary Saving, Reserves, and Sovereign Wealth Funds 219

3 Gains from Efficient Investment 220

The Basic Model 220

Efficient Investment: A Numerical Example and Generalization 222
Summary: Make Hay While the Sun Shines 225
APPLICATION Delinking Saving from Investment 225
Can Poor Countries Gain from Financial Globalization? 227
APPLICATION A Versus k 231

SIDE BAR What Does the World Bank Do? 235
HEADLINES A Brief History of Foreign Aid 235

4 Gains from Diversification of Risk 236

Diversification: A Numerical Example and Generalization 237

APPLICATION The Home Bias Puzzle 242

Summary: Don't Put All Your Eggs in One Basket 244

Key Points, Key Terms, and Problems

Appendix to Chapter 6 251

CHAPTER 7 Balance of Payments II: Output, Exchange Rates, and Macroeconomic Policies in the Short Run 253

1 Demand in the Open Economy 254

Preliminaries and Assumptions 254

Consumption 255

Investment 256

The Government 256

The Trade Balance 257

HEADLINES Oh! What a Lovely Currency War 259

HEADLINES The Curry Trade 260

APPLICATION The Trade Balance and the Real Exchange Rate 261

SIDE BAR Barriers to Expenditure Switching: Pass-Through and the J Curve 263

Exogenous Changes in Demand 265

2 Goods Market Equilibrium: The Keynesian Cross 266

Supply and Demand 266
Determinants of Demand 267
Factors That Shift the Demand Curve 267
Summary 269

3 Goods and Forex Market Equilibria: Deriving the IS Curve 270

Equilibrium in Two Markets 270

Forex Market Recap 270

Deriving the IS Curve 272

Factors That Shift the IS Curve 273

Summing Up the IS Curve 275

4 Money Market Equilibrium: Deriving the LM Curve 276

Money Market Recap 276

Deriving the LM Curve 276

Factors That Shift the LM Curve 277

Summing Up the LM Curve 278

5 The Short-Run IS-LM-FX Model of an Open Economy 279

Macroeconomic Policies in the Short Run 279

Monetary Policy Under Floating Exchange Rates 281

Monetary Policy Under Fixed Exchange Rates 282

Fiscal Policy Under Floating Exchange Rates 283 Fiscal Policy Under Fixed Exchange Rates 284 Summary 286

6 Stabilization Policy 287

APPLICATION The Right Time for Austerity? 287

Problems in Policy Design and Implementation 289

APPLICATION Poland Is Not Latvia 290

APPLICATION Macroeconomic Policies in the Liquidity Trap 292

7 Conclusions 296

Key Points, Key Terms, and Problems

Appendix 1 to Chapter 7 301

Appendix 2 to Chapter 7 303

PART 4

Applications and Policy Issues

CHAPTER 8 Fixed Versus Floating: International Monetary Experience 305

1 Exchange Rate Regime Choice: Key Issues 307

APPLICATION Britain and Europe: The Big Issues 307
Key Factors in Exchange Rate Regime Choice: Integration and Similarity 312

Economic Integration and the Gains in Efficiency 312 Economic Similarity and the Costs of Asymmetric Shocks 313 Simple Criteria for a Fixed Exchange Rate 314

APPLICATION Do Fixed Exchange Rates Promote Trade? 315
APPLICATION Do Fixed Exchange Rates Diminish Monetary
Autonomy and Stability? 317

2 Other Benefits of Fixing 320

Fiscal Discipline, Seigniorage, and Inflation 320

SIDE BAR The Inflation Tax 321
Liability Dollarization, National Wealth, and Contractionary
Depreciations 323
Summary 329

3 Fixed Exchange Rate Systems 330

Cooperative and Noncooperative Adjustments to Interest Rates 330
Cooperative and Noncooperative Adjustments to Exchange Rates 333
APPLICATION The Gold Standard 335

4 International Monetary Experience 337

The Rise and Fall of the Gold Standard 337 Bretton Woods to the Present 340

Key Points, Key Terms, and Problems

CHAPTER 9 Exchange Rate Crises: How Pegs Work and How They Break 347

1 Facts About Exchange Rate Crises 348

What Is an Exchange Rate Crisis? 348 How Costly Are Exchange Rate Crises? 348

SIDE BAR The Political Costs of Crises 351

Summary 352

2 How Pegs Work: The Mechanics of a Fixed Exchange Rate 354

Preliminaries and Assumptions 354

The Central Bank Balance Sheet 355

Fixing, Floating, and the Role of Reserves 356

How Reserves Adjust to Maintain the Peg 357

Graphical Analysis of the Central Bank Balance Sheet 357

Defending the Peg I: Changes in the Level of Money Demand 359

APPLICATION Risk Premiums in Advanced and Emerging Markets 362

APPLICATION The Argentine Convertibility Plan Before the Tequila Crisis 365

Defending the Peg II: Changes in the Composition of Money Supply 367

APPLICATION The Argentine Convertibility Plan After the Tequila Crisis 372

The Central Bank Balance Sheet and the Financial System 374

SIDE BAR The Great Reserve Accumulation in Emerging Markets 376

Summary 378

3 How Pegs Break I: Inconsistent Fiscal Policies 379

The Basic Problem: Fiscal Dominance 379

A Simple Model 379

APPLICATION The Peruvian Crisis of 1986 382

Summary 386

4 How Pegs Break II: Contingent Monetary Policies 387

The Basic Problem: Contingent Commitment 387

A Simple Model 388

APPLICATION The Man Who Broke the Bank of England 393

Summary 394

Can We Prevent Crises? 394 Key Points, Key Terms, and Problems

CHAPTER 10 The Euro 401

1 The Economics of the Euro 404

The Theory of Optimum Currency Areas 404
Simple Optimum Currency Area Criteria 405
What's the Difference Between a Fix and a Currency Union? 406
Other Optimum Currency Area Criteria 407

APPLICATION Optimum Currency Areas: Europe Versus the United States 409

Are the OCA Criteria Self-Fulfilling? 412 Summary 414

HEADLINES Currency Unions and Trade 415

2 The History and Politics of the Euro 416

A Brief History of Europe 416 Summary 422

3 Eurozone Tensions in Tranquil Times, 1999–2007 423

The European Central Bank 424
The Rules of the Club 428
Sticking to the Rules 432

4 The Eurozone in Crisis, 2008-2013 433

5 Conclusions: Assessing the Euro 441

HEADLINES A Bad Marriage? 442 Key Points, Key Terms, and Problems

CHAPTER 11 Topics in International Macroeconomics 449

1 Exchange Rates in the Long Run: Deviations from Purchasing Power Parity 450

Limits to Arbitrage 450

APPLICATION It's Not Just the Burgers That Are Cheap 453

Nontraded Goods and the Balassa-Samuelson Model 455

Overvaluations, Undervaluations, and the Productivity Growth: Forecasting Implications for Real and Nominal Exchange Rates 457

APPLICATION Real Exchange Rates in Emerging Markets 459
Conclusion 461

2 Exchange Rates in the Short Run: Deviations from Uncovered Interest Parity 461

APPLICATION The Carry Trade 461
APPLICATION Peso Problems 464

HEADLINES Mrs. Watanabe's Hedge Fund 465

The Efficient Markets Hypothesis 468 Limits to Arbitrage 470 Conclusion 474

3 Debt and Default 474

A Few Peculiar Facts About Sovereign Debt 475

A Model of Default, Part One: The Probability of Default 476

APPLICATION Is There Profit in Lending to Developing Countries? 481

A Model of Default, Part Two: Loan Supply and Demand 483

APPLICATION The Costs of Default 486

Conclusion 489

APPLICATION The Argentina Crisis of 2001–2002 490

4 The Global Macroeconomy and the 2007-2013 Crisis 493

Backdrop to the Crisis 493

HEADLINES Is the IMF "Pathetic"? 494

Panic and the Great Recession, 500

Conclusion: Lessons for Macroeconomics 511

Key Points, Key Terms, and Problems

Index I-1