Contents

Preface v

PART 1 Introduction to International Trade

CHAPTER 1 Trade in the Global Economy 1

1 International Trade 3

The Basics of World Trade 3

HEADLINES Sum of iPhone Parts: Trade Distortion 5

APPLICATION Is Trade Today Different from the Past? 5

Map of World Trade 7

Trade Compared with GDP 11

Barriers to Trade 13

"First Golden Age" of Trade 14

"Second Golden Age" of Trade 15

HEADLINES A Sea Change in Shipping 60 Years Ago 16

The Future of Trade 17

- 2 Migration and Foreign Direct Investment 19 Map of Migration 19 Map of Foreign Direct Investment 22
- 3 Conclusions 26

Key Points, Key Terms, and Problems

PART 2 Patterns of International Trade

CHAPTER 2 Trade and Technology: The Ricardian Model 29

1 Reasons for Trade 31

Proximity 31

Resources 32

Absolute Advantage 32

SIDE BAR Can Comparative Advantage Be Created? The Case of "Icewine" 33

Comparative Advantage 33

SIDE BAR David Ricardo and Mercantilism 34

2 Ricardian Model 35 The Home Country 35

The Foreign Country 39

APPLICATION Comparative Advantage in Apparel, Textiles, and Wheat 41

3 Determining the Pattern of International Trade 42 International Trade Equilibrium 43 APPLICATION Labor Productivity and Wages 48

4 Solving for International Prices 50

Home Export Supply Curve 50 International Trade Equilibrium 53 APPLICATION The Terms of Trade for Primary Commodities 54

5 Conclusions 56

Key Points, Key Terms, and Problems

CHAPTER 3 Gains and Losses from Trade in the Specific-Factors Model 61

1 Specific-Factors Model 63

The Home Country 63 The Foreign Country 65 Overall Gains from Trade 66 **APPLICATION** How Large Are the Gains from Trade? 67

2 Earnings of Labor 68

Determination of Wages 68 Change in Relative Price of Manufactures 70

APPLICATION Manufacturing and Services in the United States: Employment and Wages Across Sectors 73

APPLICATION Trade Adjustment Assistance Programs: Financing the Adjustment Costs of Trade 76

HEADLINES Services Workers Are Now Eligible for Trade Adjustment Assistance 77

3 Earnings of Capital and Land 77

Determining the Payments to Capital and Land 77 Numerical Example 79 What It All Means 82

APPLICATION Prices in Agriculture 82

4 Conclusions 84

HEADLINES Rise in Coffee Prices—Great for Farmers, Tough on Co-ops 85

Key Points, Key Terms, and Problems

CHAPTER 4 Trade and Resources: The Heckscher–Ohlin Model 89

1 Heckscher–Ohlin Model 90

Assumptions of the Heckscher-Ohlin Model 91

APPLICATION Are Factor Intensities the Same Across Countries? 93

No-Trade Equilibrium 94 Free-Trade Equilibrium 96

2 Testing the Heckscher–Ohlin Model 100

Leontief's Paradox 101 Factor Endowments in 2013 102 Differing Productivities Across Countries 105 Leontief's Paradox Once Again 108

3 Effects of Trade on Factor Prices 111

Effect of Trade on the Wage and Rental of Home 111 Determination of the Real Wage and Real Rental 115 Changes in the Real Wage and Rental: A Numerical Example 116

APPLICATION Opinions Toward Free Trade 119

4 Conclusions 121

Key Points, Key Terms, and Problems

CHAPTER 5 Movement of Labor and Capital Between Countries 125

1 Movement of Labor Between Countries: Migration 127

Effects of Immigration in the Short Run: Specific-Factors Model 127

APPLICATION Immigration to the New World 130

APPLICATION Immigration into Europe Today 131

HEADLINES Brussels Resumes Policy Push to Share Out Refugees Across EU 133

Other Effects of Immigration in the Short Run 134

HEADLINES Refugees Can Be an Investment, Rather than a Burden 135

Effects of Immigration in the Long Run 136 Rybczynski Theorem 141

Factor Price Insensitivity Theorem 142

APPLICATION The Effects of the Mariel Boat Lift on Industry Output in Miami 142

APPLICATION Immigration into the United States 144

2 Movement of Capital Between Countries: Foreign Direct Investment 148 Greenfield Investment 149

FDI in the Short Run: Specific-Factors Model 149 FDI in the Long Run 151 APPLICATION The Effect of EDI on Rentals and Wag

APPLICATION The Effect of FDI on Rentals and Wages in Singapore 153

HEADLINES The Myth of Asia's Miracle 155

3 Gains from Labor and Capital Flows 156 Gains from Immigration 156

SIDE BAR Immigrants and Their Remittances 159

APPLICATION Gains from Migration 160

Gains from Foreign Direct Investment 163

4 Conclusions 164

Key Points, Key Terms, and Problems

PART 3 New Explanations for International Trade

CHAPTER 6 Increasing Returns to Scale and Monopolistic Competition 169

- 1 Basics of Imperfect Competition 172 Monopoly Equilibrium 173 Demand with Duopoly 173
- 2 Trade Under Monopolistic Competition 175 Equilibrium Without Trade 177 Equilibrium with Free Trade 179
- **3** The North American Free Trade Agreement 182 Gains and Adjustment Costs for Canada Under NAFTA 182 Gains and Adjustment Costs for Mexico Under NAFTA 183

HEADLINES Nearly 20 Years After NAFTA, First Mexican Truck Arrives In U.S. Interior 184

XIV | CONTENTS

Gains and Adjustment Costs for the United States Under NAFTA 187

HEADLINES Opposing Viewpoints on the Effect of NAFTA, 20 Years Later 188

4 Intra-Industry Trade and the Gravity Equation 192

Index of Intra-Industry Trade 192

The Gravity Equation 193

APPLICATION The Gravity Equation for Canada and the United States 195

5 Conclusions 198

Key Points, Key Terms, and Problems

CHAPTER 7 Offshoring of Goods and Services 201

SIDE BAR "Foreign Outsourcing" Versus "Offshoring" 203

1 A Model of Offshoring 204

Value Chain of Activities 204 Slicing the Value Chain 206 Changes in Foreign Costs and in Offshoring 208

2 Explaining Changes in Wages and Employment 211

Changes in the Relative Wage of Nonproduction Workers in the United States 211 $\,$

Changes in the Relative Wage of Nonproduction Workers in Mexico 215

Job Polarization in the United States 216

3 The Gains from Offshoring 221

Simplified Offshoring Model 222

Production in the Absence of Offshoring 223 Terms of Trade 225

APPLICATION U.S. Terms of Trade and Service Exports 228

4 The Future of Offshoring and You 231

HEADLINES Mexico: The New China 233

5 Conclusions 234

Key Points, Key Terms, and Problems

PART 4 International Trade Policies

CHAPTER 8 Import Tariffs and Quotas Under Perfect Competition 241

1 A Brief History of the World Trade Organization 243

SIDE BAR Key Provisions of the GATT 245

2 The Gains from Trade 246

Consumer and Producer Surplus 246 Home Welfare 247 Home Import Demand Curve 249

3 Import Tariffs for a Small Country 250

Free Trade for a Small Country 250 Effect of the Tariff 250 Why and How Are Tariffs Applied? 254

SIDE BAR Safeguard Tariffs 255

APPLICATION U.S. Tariffs on Steel and Tires 256

4 Import Tariffs for a Large Country 263

Foreign Export Supply 264 Effect of the Tariff 265 **APPLICATION** U.S. Tariffs on Steel Once Again 269

5 Import Quotas 270

HEADLINES Sugar Could Sweeten U.S. Australia Trans-Pacific Trade Talks 271

Import Quota in a Small Country 272 **APPLICATION** China and the Multifibre Arrangement 276

6 Conclusions 279

Key Points, Key Terms, and Problems

CHAPTER 9 Import Tariffs and Quotas Under Imperfect Competition 285

1 Tariffs and Quotas with Home Monopoly 287

No-Trade Equilibrium 288 Free-Trade Equilibrium 289 Effect of a Home Tariff 290 Effect of a Home Quota 292

APPLICATION U.S. Imports of Japanese Automobiles 294

2 Tariffs with Foreign Monopoly 297

Foreign Monopoly 297

APPLICATION Import Tariffs on Japanese Trucks 299

HEADLINES The Chickens Have Come Home to Roost 301

3 Dumping 301

Numerical Example of Dumping 304

4 Policy Response to Dumping 304

Antidumping Duties 304

APPLICATION United States and European Duties on Solar Panels from China 305

APPLICATION Antidumping Duties Versus Safeguard Tariffs 309

5 Infant Industry Protection 311

Free-Trade Equilibrium 312 Tariff Equilibrium 313

APPLICATION Examples of Infant Industry Protection 314

Government Policies in the Solar Panel Industry 315 U.S. Tariff on Heavyweight Motorcycles 317 Computers in Brazil 320 Protecting the Automobile Industry in China 322

6 Conclusions 325

Key Points, Key Terms, and Problems

CHAPTER 10 Export Policies in Resource-Based and High-Technology Industries 333

1 WTO Goals on Agricultural Subsidies 335

Agricultural Export Subsidies 336

HEADLINES WTO Leaders Agree to End Farm Subsidies as Doha Unresolved 336

Other Matters from the Hong Kong WTO Meeting 337

- 2 Export Subsidies in a Small Home Country 338 Impact of an Export Subsidy 338
- **3 Export Subsidies in a Large Home Country 341** Effect of the Subsidy 342

APPLICATION Who Gains and Who Loses? 343

4 Production Subsidies 346

Effect of a Production Subsidy in a Small Home Country 346

Effect of the Production Subsidy in a Large Home Country 348

5 Export Tariffs 349

Impact of an Export Tariff in a Small Country 349 Impact of an Export Tariff in a Large Country 351

6 Export Quotas 353

APPLICATION Chinese Export Policies in Mineral Products 355

HEADLINES China Ends Rare-Earth Minerals Export Quotas 358

7 High-Technology Export Subsidies 359

"Strategic" Use of High-Tech Export Subsidies 359 Effect of a Subsidy to Airbus 362 Subsidy with Cost Advantage for Boeing 364 APPLICATION Subsidies to Commercial Aircraft 365

8 Conclusions 368

Key Points, Key Terms, and Problems

CHAPTER 11 International Agreements: Trade, Labor, and the Environment 375

1 Multilateral Trade Agreements 377

The Logic of Multilateral Trade Agreements 377 Prisoner's Dilemma 379

HEADLINES Trade Talks Lead to 'Death of Doha and Birth of New WTO' 381

2 Regional Trade Agreements 382

HEADLINES Making the Case for Trade 384

APPLICATION The Trans-Pacific Partnership 384

Controversial Issues in the Trans-Pacific Partnership 386 Trade Creation and Trade Diversion 388

Numerical Example of Trade Creation and Diversion 389 Trade Diversion in a Graph 390

APPLICATION Trade Creation and Diversion for Canada 393

XVI CONTENTS

3 International Agreements on Labor Issues 393

How to Promote Labor Standards 394

HEADLINES Wal-Mart Orders Chinese Suppliers to Lift Standards 396

HEADLINES American Tariffs, Bangladeshi Deaths 398

HEADLINES U.S. Suspends Bangladesh's Preferential Trade Status 399

4 International Agreements on the Environment 400

Environmental Issues in the GATT and WTO 401

Does Trade Help or Harm the Environment? 404

The Tragedy of the Commons 409

International Agreements on Pollution 413

APPLICATION The Kyoto Protocol and the COP21 Paris Agreement 415

HEADLINES Nations Unite in Global Agreement on Climate Change 417

5 Conclusions 418

Key Points, Key Terms, and Problems

PART 5 Introduction to International Macroeconomics

CHAPTER 12 The Global Macroeconomy 423

1 Foreign Exchange: Currencies and Crises 424 How Exchange Rates Behave 425 Why Exchange Rates Matter 426 When Exchange Rates Misbehave 427 Summary and Plan of Study 428 HEADLINES Economic Crisis in Iceland 429

2 Globalization of Finance: Debts and Deficits 430

Deficits and Surpluses: The Balance of Payments 430 Debtors and Creditors: External Wealth 433 Darlings and Deadbeats: Defaults and Other Risks 434 Summary and Plan of Study 435

3 Government and Institutions: Policies and Performance 436

Integration and Capital Controls: The Regulation of International Finance 436

Independence and Monetary Policy: The Choice of Exchange Rate Regimes 438

Institutions and Economic Performance: The Quality of Governance 439

HEADLINES Is There a New Washington Consensus? 441

Summary and Plan of Study 443

4 Conclusions 443

Key Points, Key Terms, and Problems

PART 6 Exchange Rates

CHAPTER 13 Introduction to Exchange Rates and the Foreign Exchange Market 447

1 Exchange Rate Essentials 448

Defining the Exchange Rate 448 Appreciations and Depreciations 450 Multilateral Exchange Rates 452 Example: Using Exchange Rates to Compare Prices in a Common Currency 453

2 Exchange Rates in Practice 455

Exchange Rate Regimes: Fixed Versus Floating 455 APPLICATION Recent Exchange Rate Experiences 456

3 The Market for Foreign Exchange 461

The Spot Contract 462 Transaction Costs 462 Derivatives 463

APPLICATION Foreign Exchange Derivatives 463

Private Actors 464 Government Actions 465

4 Arbitrage and Spot Exchange Rates 466 Arbitrage with Two Currencies 466

Arbitrage with Three Currencies 467 Cross Rates and Vehicle Currencies 469

5 Arbitrage and Interest Rates 469 Riskless Arbitrage: Covered Interest Parity 470 APPLICATION Evidence on Covered Interest Parity 472

Risky Arbitrage: Uncovered Interest Parity 473

SIDE BAR Assets and Their Attributes 474

APPLICATION Evidence on Uncovered Interest Parity 476

Uncovered Interest Parity: A Useful Approximation 478 Summary 479

6 Conclusions 480

Key Points, Key Terms, and Problems

CHAPTER 14 Exchange Rates I: The Monetary Approach in the Long Run 485

1 Exchange Rates and Prices in the Long Run: Purchasing Power Parity and Goods Market Equilibrium 486

The Law of One Price 487

Purchasing Power Parity 488

The Real Exchange Rate 489

Absolute PPP and the Real Exchange Rate 489

Absolute PPP, Prices, and the Nominal Exchange Rate 490

Relative PPP, Inflation, and Exchange Rate Depreciation 490

Summary 492

APPLICATION Evidence for PPP in the Long Run and Short Run 492

How Slow Is Convergence to PPP? 493

What Explains Deviations from PPP? 494

SIDE BAR Forecasting When the Real Exchange Rate Is Undervalued or Overvalued 495

HEADLINES The Big Mac Index 496

2 Money, Prices, and Exchange Rates in the Long Run: Money Market Equilibrium in a Simple Model 498

What Is Money? 498

The Measurement of Money 498

The Supply of Money 500

The Demand for Money: A Simple Model 500

Equilibrium in the Money Market 501

A Simple Monetary Model of Prices 501

A Simple Monetary Model of the Exchange Rate 502 Money Growth, Inflation, and Depreciation 503

3 The Monetary Approach: Implications and Evidence 504

Exchange Rate Forecasts Using the Simple Model 504 **APPLICATION** Evidence for the Monetary Approach 507

APPLICATION Hyperinflations 508

SIDE BAR Currency Reform 510

4 Money, Interest Rates, and Prices in the Long Run: A General Model 512

The Demand for Money: The General Model 512 Long-Run Equilibrium in the Money Market 513 Inflation and Interest Rates in the Long Run 514 The Fisher Effect 515 Real Interest Parity 515

APPLICATION Evidence on the Fisher Effect 516

The Fundamental Equation Under the General Model 518 Exchange Rate Forecasts Using the General Model 518

5 Monetary Regimes and Exchange Rate Regimes 520

The Long Run: The Nominal Anchor 521

APPLICATION Nominal Anchors in Theory and Practice 524

6 Conclusions 526

Key Points, Key Terms, and Problems

CHAPTER 15 Exchange Rates II: The Asset Approach in the Short Run 533

1 Exchange Rates and Interest Rates in the Short Run: UIP and Forex Market Equilibrium 534

Risky Arbitrage 534

Equilibrium in the Forex Market: An Example 536

Adjustment to Forex Market Equilibrium 538

Changes in Domestic and Foreign Returns and Forex Market Equilibrium 538

Summary 539

2 Interest Rates in the Short Run: Money Market Equilibrium 541

Money Market Equilibrium in the Short Run: How Nominal Interest Rates Are Determined 541

Money Market Equilibrium in the Short Run: Graphical Solution 542

Adjustment to Money Market Equilibrium in the Short Run 542

XVIII | CONTENTS

Another Building Block: Short-Run Money Market Equilibrium 543

Changes in Money Supply and the Nominal Interest Rate 544

APPLICATION Can Central Banks Always Control the Interest Rate? A Lesson from the Crisis of 2008–09 545

Changes in Real Income and the Nominal Interest Rate 547 The Monetary Model: The Short Run Versus the Long Run 547

3 The Asset Approach: Applications and Evidence 548

The Asset Approach to Exchange Rates: Graphical Solution 548

Short-Run Policy Analysis 550

APPLICATION The Rise and Fall of the Dollar, 1999–2004 552

4 A Complete Theory: Unifying the Monetary and Asset Approaches 554

SIDE BAR Confessions of a Forex Trader 556

Long-Run Policy Analysis 556

Overshooting 560

SIDE BAR Overshooting in Practice 562

5 Fixed Exchange Rates and the Trilemma 563

What Is a Fixed Exchange Rate Regime? 563

Pegging Sacrifices Monetary Policy Autonomy in the Short Run: Example 564

Pegging Sacrifices Monetary Policy Autonomy in the Long Run: Example 565

The Trilemma 566

SIDE BAR Intermediate Regimes 568

APPLICATION The Trilemma in Europe 569

6 Conclusions 570

APPLICATION News and the Foreign Exchange Market in Wartime 570

Key Points, Key Terms, and Problems

PART 7 The Balance of Payments

CHAPTER 16 National and International Accounts: Income, Wealth, and the Balance of Payments 579

1 Measuring Macroeconomic Activity: An Overview 580

The Flow of Payments in a Closed Economy: Introducing the National Income and Product Accounts 580

The Flow of Payments in an Open Economy: Incorporating the Balance of Payments Accounts 582

2 Income, Product, and Expenditure 585

Three Approaches to Measuring Economic Activity 585 From GNE to GDP: Accounting for Trade in Goods and Services 585

From GDP to GNI: Accounting for Trade in Factor Services 586

APPLICATION Celtic Tiger or Tortoise? 587

From GNI to GNDI: Accounting for Transfers of Income 589

HEADLINES Are Rich Countries "Stingy" with Foreign Aid? 591

What the National Economic Aggregates Tell Us 591 Understanding the Data for the National Economic Aggregates 592

What the Current Account Tells Us 594

APPLICATION Global Imbalances 595

3 The Balance of Payments 600

Accounting for Asset Transactions: The Financial Account 600

Accounting for Asset Transactions: The Capital Account 600

Accounting for Home and Foreign Assets 601

How the Balance of Payments Accounts Work: A Macroeconomic View 602

How the Balance of Payments Accounts Work: A Microeconomic View 603

SIDE BAR The Double-Entry Principle in the Balance of Payments 604

Understanding the Data for the Balance of Payments Account 605

What the Balance of Payments Account Tells Us 607

4 External Wealth 608

The Level of External Wealth 609 Changes in External Wealth 610 Understanding the Data on External Wealth 611 What External Wealth Tells Us 613

5 Conclusions 613

SIDE BAR Beware of Greeks Bearing Statistics 614

Key Points, Key Terms, and Problems

Appendix to Chapter 16 619

CHAPTER 17 Balance of Payments I: The Gains from Financial Globalization 621

1 The Limits on How Much a Country Can Borrow: The Long-Run Budget Constraint 623

How the Long-Run Budget Constraint Is Determined 624

A Long-Run Example: The Perpetual Loan 628

Implications of the LRBC for Gross National Expenditure and Gross Domestic Product 628

Summary 629

APPLICATION The Favorable Situation of the United States 629

APPLICATION The Difficult Situation of the Emerging Markets 632

2 Gains from Consumption Smoothing 635

The Basic Model 635

Consumption Smoothing: A Numerical Example and Generalization 636

Summary: Save for a Rainy Day 639

SIDE BAR Wars and the Current Account 640

APPLICATION Consumption Volatility and Financial Openness 640

APPLICATION Precautionary Saving, Reserves, and Sovereign Wealth Funds 642

HEADLINES Copper-Bottomed Insurance 643

3 Gains from Efficient Investment 644

The Basic Model 644

Efficient Investment: A Numerical Example and Generalization 645

Summary: Make Hay While the Sun Shines 648

APPLICATION Delinking Saving from Investment 648

Can Poor Countries Gain from Financial Globalization? 650

APPLICATION A Versus k 654

SIDE BAR What Does the World Bank Do? 658

4 Gains from Diversification of Risk 658

Diversification: A Numerical Example and Generalization 658

APPLICATION The Home Bias Puzzle 663

Summary: Don't Put All Your Eggs in One Basket 666

5 Conclusions 666

Key Points, Key Terms, and Problems Appendix to Chapter 17 673

CHAPTER 18 Balance of Payments II: Output, Exchange Rates, and Macroeconomic Policies in the Short Run 675

1 Demand in the Open Economy 676

Preliminaries and Assumptions 676 Consumption 677 Investment 678 The Government 679 The Trade Balance 679

HEADLINES Oh! What a Lovely Currency War 681

HEADLINES The Curry Trade 682

APPLICATION The Trade Balance and the Real Exchange Rate 683

Exogenous Changes in Demand 685

SIDE BAR Barriers to Expenditure Switching: Pass-Through and the J Curve 687

2 Goods Market Equilibrium: The Keynesian Cross 689

Supply and Demand 689 Determinants of Demand 689 Factors That Shift the Demand Curve 691 Summary 692

3 Goods and Forex Market Equilibria: Deriving the IS Curve 692

Equilibrium in Two Markets 693 Forex Market Recap 693 Deriving the IS Curve 695 Factors That Shift the IS Curve 696 Summing Up the IS Curve 698

4 Money Market Equilibrium: Deriving the LM Curve 698

Money Market Recap 699 Deriving the LM Curve 700 Factors That Shift the LM Curve 700 Summing Up the LM Curve 701

XX | CONTENTS

5 The Short-Run IS-LM-FX Model of an Open Economy 702

Macroeconomic Policies in the Short Run 704 Monetary Policy Under Floating Exchange Rates 704 Monetary Policy Under Fixed Exchange Rates 706 Fiscal Policy Under Floating Exchange Rates 707 Fiscal Policy Under Fixed Exchange Rates 708 Summary 710

6 Stabilization Policy 711

APPLICATION The Right Time for Austerity? 711

Problems in Policy Design and Implementation 713

HEADLINES Poland Is Not Latvia 714

APPLICATION Macroeconomic Policies in the Liquidity Trap 716

7 Conclusions 720

Key Points, Key Terms, and Problems

Appendix 1 to Chapter 18 725

Appendix 2 to Chapter 18 727

PART 8 Applications and Policy Issues

CHAPTER 19 Fixed Versus Floating: International Monetary Experience 729

1 Exchange Rate Regime Choice: Key Issues 731

APPLICATION Britain and Europe: The Big Issues 731

Key Factors in Exchange Rate Regime Choice: Integration and Similarity 736

Economic Integration and the Gains in Efficiency 737

Economic Similarity and the Costs of Asymmetric Shocks 737

Simple Criteria for a Fixed Exchange Rate 738

APPLICATION Do Fixed Exchange Rates Promote Trade? 739

APPLICATION Do Fixed Exchange Rates Diminish Monetary Autonomy and Stability? 741

2 Other Benefits of Fixing 744

Fiscal Discipline, Seigniorage, and Inflation 744

SIDE BAR The Inflation Tax 745

Liability Dollarization, National Wealth, and Contractionary Depreciations 747 Summary 752

3 Fixed Exchange Rate Systems 753

Cooperative and Noncooperative Adjustments to Interest Rates 754

Cooperative and Noncooperative Adjustments to Exchange Rates 756

APPLICATION The Gold Standard 759

4 International Monetary Experience 761 The Rise and Fall of the Gold Standard 761

Bretton Woods to the Present 764

5 Conclusions 767

Key Points, Key Terms, and Problems

CHAPTER 20 Exchange Rate Crises: How Pegs Work and How They Break 771

1 Facts About Exchange Rate Crises 772 What Is an Exchange Rate Crisis? 772 How Costly Are Exchange Rate Crises? 772

SIDE BAR The Political Costs of Crises 773 Summary 776

2 How Pegs Work: The Mechanics of a Fixed Exchange Rate 778

Preliminaries and Assumptions 778

The Central Bank Balance Sheet 779

Fixing, Floating, and the Role of Reserves 780

How Reserves Adjust to Maintain the Peg 781

Graphical Analysis of the Central Bank Balance Sheet 781

Defending the Peg I: Changes in the Level of Money Demand 783

APPLICATION Risk Premiums in Advanced and Emerging Markets 786

APPLICATION The Argentine Convertibility Plan Before the Tequila Crisis 789

Defending the Peg II: Changes in the Composition of Money Supply 791

APPLICATION The Argentine Convertibility Plan After the Tequila Crisis 797

The Central Bank Balance Sheet and the Financial System 798

Summary 800

SIDE BAR The Great Reserve Accumulation in Emerging Markets 802

3 How Pegs Break I: Inconsistent Fiscal Policies 804

The Basic Problem: Fiscal Dominance 804 A Simple Model 805

APPLICATION The Peruvian Crisis of 1986 809

Summary 812

4 How Pegs Break II: Contingent Monetary Policies 812

The Basic Problem: Contingent Commitment 813 A Simple Model 813

APPLICATION The Man Who Broke the Bank of England 818

Summary 820

5 Conclusions 820

Can We Prevent Crises? 820 Key Points, Key Terms, and Problems

CHAPTER 21 The Euro 827

1 The Economics of the Euro 830

The Theory of Optimum Currency Areas 830 Simple Optimum Currency Area Criteria 831 What's the Difference Between a Fix and a Currency Union? 831

Other Optimum Currency Area Criteria 833

APPLICATION Optimum Currency Areas: Europe Versus the United States 836

Are the OCA Criteria Self-Fulfilling? 839

HEADLINES Currency Unions and Trade 841

Summary 842

2 The History and Politics of the Euro 843

A Brief History of Europe 843 Summary 851

3 Eurozone Tensions in Tranquil Times, 1999–2007 851

The European Central Bank 851 The Rules of the Club 855 Sticking to the Rules 859

4 The Eurozone in Crisis, 2008–13 861 HEADLINES A Bad Marriage? 869

5 Conclusions: Assessing the Euro 870

Key Points, Key Terms, and Problems

Index I-1