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Brief Contents

	Contents	ix
	Preface	xxi
1	Introduction	1
Part 1	International Trade Theory	10
2	World Trade: An Overview	10
3	Labor Productivity and Comparative Advantage: The Ricardian Model	24
4	Specific Factors and Income Distribution	50
5	Resources and Trade: The Heckscher-Ohlin Model	80
6	The Standard Trade Model	111
7	External Economies of Scale and the International Location of Production	137
8	Firms in the Global Economy: Export Decisions, Outsourcing, and Multinational Enterprises	155
Part 2	International Trade Policy	192
9	The Instruments of Trade Policy	192
10	The Political Economy of Trade Policy	219
11	Trade Policy in Developing Countries	256
12	Controversies in Trade Policy	271
Part 3	Exchange Rates and Open-Economy Macroeconomics	293
13	National Income Accounting and the Balance of Payments	293
14	Exchange Rates and the Foreign Exchange Market: An Asset Approach	320
15	Money, Interest Rates, and Exchange Rates	354
16	Price Levels and the Exchange Rate in the Long Run	384
17	Output and the Exchange Rate in the Short Run	421
18	Fixed Exchange Rates and Foreign Exchange Intervention	463
Part 4	International Macroeconomic Policy	504
19	International Monetary Systems: An Historical Overview	504
20	Optimum Currency Areas and the European Experience	557
21	Financial Globalization: Opportunity and Crisis	586
22	Developing Countries: Growth, Crisis, and Reform	619

Contents

	Preface	xxi
1	Introduction	1
	What Is International Economics About?	3
	The Gains from Trade	4
	The Pattern of Trade	5
	How Much Trade?	5
	Balance of Payments	6
	Exchange Rate Determination	6
	International Policy Coordination	7
	The International Capital Market	7
	International Economics: Trade and Money	8
Part 1	International Trade Theory	10
2	World Trade: An Overview	10
	Who Trades with Whom?	10
	Size Matters: The Gravity Model	11
	Using the Gravity Model: Looking for Anomalies	13
	Impediments to Trade: Distance, Barriers, and Borders	14
	The Changing Pattern of World Trade	16
	Has the World Gotten Smaller?	16
	What Do We Trade?	17
	Service Outsourcing	19
	Do Old Rules Still Apply?	21
	Summary	21
3	Labor Productivity and Comparative Advantage: The Ricardian Model	24
	The Concept of Comparative Advantage	25
	A One-Factor Economy	26
	Production Possibilities	27
	Relative Prices and Supply	28
	Trade in a One-Factor World	29
	Determining the Relative Price After Trade	30
	BOX: Comparative Advantage in Practice: The Case of Babe Ruth	33
	The Gains from Trade	34
	A Note on Relative Wages	35
	BOX: The Losses from Nontrade	36
	Misconceptions About Comparative Advantage	37
	Productivity and Competitiveness	37
	The Pauper Labor Argument	37
	BOX: Do Wages Reflect Productivity?	38
	Exploitation	39
	Comparative Advantage with Many Goods	40
	Setting Up the Model	40
	Relative Wages and Specialization	40
	Determining the Relative Wage in the Multigood Model	42

Adding Transport Costs and Nontraded Goods	43
Empirical Evidence on the Ricardian Model	45
Summary	47
4 Specific Factors and Income Distribution	50
The Specific Factors Model	51
BOX: What Is a Specific Factor?	52
Assumptions of the Model	52
Production Possibilities	53
Prices, Wages, and Labor Allocation	56
Relative Prices and the Distribution of Income	60
International Trade in the Specific Factors Model	62
Income Distribution and the Gains from Trade	63
The Political Economy of Trade: A Preliminary View	65
CASE STUDY: Trade and Unemployment	66
Income Distribution and Trade Politics	68
International Labor Mobility	69
CASE STUDY: Wage Convergence in the Age of Mass Migration	70
CASE STUDY: Immigration and the U.S. Economy	71
Summary	73
Appendix: Further Details on Specific Factors	77
Marginal and Total Product	77
Relative Prices and the Distribution of Income	78
5 Resources and Trade: The Heckscher-Ohlin Model	80
A Model of a Two-Factor Economy	81
Prices and Production	81
Choosing the Mix of Inputs	84
Factor Prices and Goods Prices	86
Resources and Output	88
Effects of International Trade Between Two-Factor Economies	89
Relative Prices and the Pattern of Trade	90
Trade and the Distribution of Income	91
CASE STUDY: North-South Trade and Income Inequality	92
Factor-Price Equalization	97
Empirical Evidence on the Heckscher-Ohlin Model	98
Trade in Goods as a Substitute for Trade in Factors	98
Patterns of Exports Between Developed and Developing Countries	101
Implications of the Tests	102
Summary	104
Appendix: Factor Prices, Goods Prices, and Production Decisions	107
Choice of Technique	107
Goods Prices and Factor Prices	108
More on Resources and Output	109
6 The Standard Trade Model	111
A Standard Model of a Trading Economy	112
Production Possibilities and Relative Supply	112
Relative Prices and Demand	113
The Welfare Effect of Changes in the Terms of Trade	116
Determining Relative Prices	117
Economic Growth: A Shift of the <i>RS</i> curve	117

Growth and the Production Possibility Frontier	119
World Relative Supply and the Terms of Trade	119
International Effects of Growth	121
CASE STUDY: Has the Growth of Newly Industrializing Countries	
Hurt Advanced Nations?	122
Tariffs and Export Subsidies: Simultaneous Shifts in <i>RS</i> and <i>RD</i>	124
Relative Demand and Supply Effects of a Tariff	125
Effects of an Export Subsidy	126
Implications of Terms of Trade Effects: Who Gains and Who Loses?	126
International Borrowing and Lending	127
Intertemporal Production Possibilities and Trade	128
The Real Interest Rate	128
Intertemporal Comparative Advantage	130
Summary	130
Appendix: More on Intertemporal Trade	134
7 External Economies of Scale and the International Location of Production	137
Economies of Scale and International Trade: An Overview	138
Economies of Scale and Market Structure	139
The Theory of External Economies	140
Specialized Suppliers	140
Labor Market Pooling	141
Knowledge Spillovers	142
External Economies and Market Equilibrium	142
External Economies and International Trade	143
External Economies, Output, and Prices	143
External Economies and the Pattern of Trade	145
BOX: Holding the World Together	147
Trade and Welfare with External Economies	147
Dynamic Increasing Returns	149
Interregional Trade and Economic Geography	150
BOX: Tinseltown Economics	151
Summary	152
8 Firms in the Global Economy: Export Decisions, Outsourcing,	
 and Multinational Enterprises	155
The Theory of Imperfect Competition	156
Monopoly: A Brief Review	157
Monopolistic Competition	159
Monopolistic Competition and Trade	164
The Effects of Increased Market Size	164
Gains from an Integrated Market: A Numerical Example	166
The Significance of Intra-Industry Trade	169
CASE STUDY: Intra-Industry Trade in Action: The North American	
Auto Pact of 1964	171
Firm Responses to Trade: Winners, Losers, and Industry Performance	172
Performance Differences Across Producers	172
The Effects of Increased Market Size	174
Trade Costs and Export Decisions	176
Dumping	178
CASE STUDY: Antidumping as Protectionism	179
Multinationals and Outsourcing	180

CASE STUDY: Patterns of Foreign Direct Investment Flows Around the World	180
The Firm's Decision Regarding Foreign Direct Investment	183
Outsourcing	185
Consequences of Multinationals and Foreign Outsourcing	186
Summary	187
Appendix: Determining Marginal Revenue	191

Part 2 International Trade Policy **192**

9 The Instruments of Trade Policy **192**

Basic Tariff Analysis	192
Supply, Demand, and Trade in a Single Industry	193
Effects of a Tariff	195
Measuring the Amount of Protection	196
Costs and Benefits of a Tariff	198
Consumer and Producer Surplus	198
Measuring the Costs and Benefits	199
BOX: Tariffs for the Long Haul	202
Other Instruments of Trade Policy	202
Export Subsidies: Theory	203
CASE STUDY: Europe's Common Agricultural Policy	204
Import Quotas: Theory	205
CASE STUDY: An Import Quota in Practice: U.S. Sugar	206
Voluntary Export Restraints	208
CASE STUDY: A Voluntary Export Restraint in Practice: Japanese Autos	208
Local Content Requirements	209
BOX: American Buses, Made in Hungary	210
Other Trade Policy Instruments	210
The Effects of Trade Policy: A Summary	211
Summary	211
Appendix: Tariffs and Import Quotas in the Presence of Monopoly	215
The Model with Free Trade	215
The Model with a Tariff	216
The Model with an Import Quota	217
Comparing a Tariff and a Quota	217

10 The Political Economy of Trade Policy **219**

The Case for Free Trade	220
Free Trade and Efficiency	220
Additional Gains from Free Trade	221
Rent-Seeking	222
Political Argument for Free Trade	222
CASE STUDY: The Gains from 1992	223
National Welfare Arguments Against Free Trade	224
The Terms of Trade Argument for a Tariff	225
The Domestic Market Failure Argument Against Free Trade	226
How Convincing Is the Market Failure Argument?	227
Income Distribution and Trade Policy	229
Electoral Competition	229
Collective Action	230
BOX: Politicians for Sale: Evidence from the 1990s	231
Modeling the Political Process	232
Who Gets Protected?	233

International Negotiations and Trade Policy234

- The Advantages of Negotiation235
- International Trade Agreements: A Brief History236
- The Uruguay Round238
- Trade Liberalization238
- Administrative Reforms: From the GATT to the WTO239
- Benefits and Costs240
- BOX: Settling a Dispute—and Creating One**241
- CASE STUDY: Testing the WTO’s Mettle**242
- The Doha Disappointment**243
- BOX: Do Agricultural Subsidies Hurt the Third World?**244
 - Preferential Trading Agreements245
- BOX: Free Trade Area versus Customs Union**246
- BOX: Do Trade Preferences Have Appeal?**248
- CASE STUDY: Trade Diversion in South America**249
- Summary**249
- Appendix: Proving That the Optimum Tariff Is Positive**253
 - Demand and Supply253
 - The Tariff and Prices253
 - The Tariff and Domestic Welfare254

11 Trade Policy in Developing Countries256

Import-Substituting Industrialization257

- The Infant Industry Argument258
- Promoting Manufacturing Through Protection259
- CASE STUDY: Mexico Abandons Import-Substituting Industrialization**261
- Results of Favoring Manufacturing: Problems of Import-Substituting Industrialization**262
- Trade Liberalization Since 1985**263
- Trade and Growth: Takeoff in Asia**265
- BOX: India’s Boom**267
- Summary**268

12 Controversies in Trade Policy271

Sophisticated Arguments for Activist Trade Policy272

- Technology and Externalities272
- Imperfect Competition and Strategic Trade Policy274
- BOX: A Warning from Intel’s Founder**277
- CASE STUDY: When the Chips Were Up**278
- Globalization and Low-Wage Labor**279
 - The Anti-Globalization Movement280
 - Trade and Wages Revisited280
 - Labor Standards and Trade Negotiations282
 - Environmental and Cultural Issues283
 - The WTO and National Independence284
 - CASE STUDY: Bare Feet, Hot Metal, and Globalization**285
- Globalization and the Environment**286
 - Globalization, Growth, and Pollution286
 - The Problem of “Pollution Havens”287
 - The Carbon Tariff Dispute289
- Summary**290

Part 3	Exchange Rates and Open-Economy Macroeconomics	293
13	National Income Accounting and the Balance of Payments	293
	The National Income Accounts	295
	National Product and National Income	296
	Capital Depreciation and International Transfers	297
	Gross Domestic Product	297
	National Income Accounting for an Open Economy	298
	Consumption	298
	Investment	298
	Government Purchases	299
	The National Income Identity for an Open Economy	299
	An Imaginary Open Economy	299
	The Current Account and Foreign Indebtedness	300
	Saving and the Current Account	302
	Private and Government Saving	303
	CASE STUDY: Government Deficit Reduction May Not Increase	
	the Current Account Surplus	304
	The Balance of Payments Accounts	306
	Examples of Paired Transactions	307
	The Fundamental Balance of Payments Identity	308
	The Current Account, Once Again	309
	The Capital Account	310
	The Financial Account	310
	Net Errors and Omissions	311
	Official Reserve Transactions	312
	CASE STUDY: The Assets and Liabilities of the World's Biggest Debtor	313
	Summary	316
14	Exchange Rates and the Foreign Exchange Market: An Asset Approach	320
	Exchange Rates and International Transactions	321
	Domestic and Foreign Prices	321
	Exchange Rates and Relative Prices	323
	The Foreign Exchange Market	324
	The Actors	324
	Characteristics of the Market	325
	Spot Rates and Forward Rates	326
	Foreign Exchange Swaps	328
	Futures and Options	328
	The Demand for Foreign Currency Assets	328
	Assets and Asset Returns	329
	BOX: Nondeliverable Forward Exchange Trading in Asia	330
	Risk and Liquidity	332
	Interest Rates	332
	Exchange Rates and Asset Returns	334
	A Simple Rule	334
	Return, Risk, and Liquidity in the Foreign Exchange Market	336
	Equilibrium in the Foreign Exchange Market	337
	Interest Parity: The Basic Equilibrium Condition	337
	How Changes in the Current Exchange Rate Affect Expected Returns	338
	The Equilibrium Exchange Rate	339
	Interest Rates, Expectations, and Equilibrium	341
	The Effect of Changing Interest Rates on the Current Exchange Rate	342
	The Effect of Changing Expectations on the Current Exchange Rate	343

CASE STUDY: What Explains the Carry Trade?	344
Summary	346
Appendix: Forward Exchange Rates and Covered Interest Parity	351
15 Money, Interest Rates, and Exchange Rates	354
Money Defined: A Brief Review	355
Money as a Medium of Exchange	355
Money as a Unit of Account	355
Money as a Store of Value	356
What Is Money?	356
How the Money Supply Is Determined	356
The Demand for Money by Individuals	357
Expected Return	357
Risk	358
Liquidity	358
Aggregate Money Demand	358
The Equilibrium Interest Rate: The Interaction of Money Supply and Demand	360
Equilibrium in the Money Market	360
Interest Rates and the Money Supply	362
Output and the Interest Rate	363
The Money Supply and the Exchange Rate in the Short Run	363
Linking Money, the Interest Rate, and the Exchange Rate	364
U.S. Money Supply and the Dollar/Euro Exchange Rate	365
Europe's Money Supply and the Dollar/Euro Exchange Rate	366
Money, the Price Level, and the Exchange Rate in the Long Run	368
Money and Money Prices	369
The Long-Run Effects of Money Supply Changes	369
Empirical Evidence on Money Supplies and Price Levels	370
Money and the Exchange Rate in the Long Run	371
Inflation and Exchange Rate Dynamics	372
Short-Run Price Rigidity versus Long-Run Price Flexibility	372
BOX: Money Supply Growth and Hyperinflation in Bolivia	374
Permanent Money Supply Changes and the Exchange Rate	374
Exchange Rate Overshooting	377
CASE STUDY: Can Higher Inflation Lead to Currency Appreciation?	378
The Implications of Inflation Targeting	378
Summary	381
16 Price Levels and the Exchange Rate in the Long Run	384
The Law of One Price	385
Purchasing Power Parity	386
The Relationship Between PPP and the Law of One Price	386
Absolute PPP and Relative PPP	387
A Long-Run Exchange Rate Model Based on PPP	388
The Fundamental Equation of the Monetary Approach	388
Ongoing Inflation, Interest Parity, and PPP	390
The Fisher Effect	391
Empirical Evidence on PPP and the Law of One Price	394
Explaining the Problems with PPP	395
Trade Barriers and Nontradables	396
Departures from Free Competition	397
Differences in Consumption Patterns and Price Level Measurement	397

BOX: Some Meaty Evidence on the Law of One Price	398
PPP in the Short Run and in the Long Run	400
CASE STUDY: Why Price Levels Are Lower in Poorer Countries	401
Beyond Purchasing Power Parity: A General Model of Long-Run	
Exchange Rates	403
The Real Exchange Rate	404
Demand, Supply, and the Long-Run Real Exchange Rate	405
BOX: Sticky Prices and the Law of One Price: Evidence	
from Scandinavian Duty-Free Shops	406
Nominal and Real Exchange Rates in Long-Run Equilibrium	408
International Interest Rate Differences and the Real Exchange Rate	410
Real Interest Parity	412
Summary	413
Appendix: The Fisher Effect, the Interest Rate, and the Exchange Rate	
Under the Flexible-Price Monetary Approach	418
17 Output and the Exchange Rate in the Short Run	421
Determinants of Aggregate Demand in an Open Economy	422
Determinants of Consumption Demand	422
Determinants of the Current Account	423
How Real Exchange Rate Changes Affect the Current Account	424
How Disposable Income Changes Affect the Current Account	424
The Equation of Aggregate Demand	425
The Real Exchange Rate and Aggregate Demand	425
Real Income and Aggregate Demand	425
How Output Is Determined in the Short Run	426
Output Market Equilibrium in the Short Run: The <i>DD</i> Schedule	428
Output, the Exchange Rate, and Output Market Equilibrium	428
Deriving the <i>DD</i> Schedule	429
Factors That Shift the <i>DD</i> Schedule	429
Asset Market Equilibrium in the Short Run: The <i>AA</i> Schedule	432
Output, the Exchange Rate, and Asset Market Equilibrium	432
Deriving the <i>AA</i> Schedule	434
Factors That Shift the <i>AA</i> Schedule	434
Short-Run Equilibrium for an Open Economy: Putting the <i>DD</i> and <i>AA</i>	
Schedules Together	435
Temporary Changes in Monetary and Fiscal Policy	437
Monetary Policy	438
Fiscal Policy	438
Policies to Maintain Full Employment	439
Inflation Bias and Other Problems of Policy Formulation	441
Permanent Shifts in Monetary and Fiscal Policy	442
A Permanent Increase in the Money Supply	442
Adjustment to a Permanent Increase in the Money Supply	442
A Permanent Fiscal Expansion	444
Macroeconomic Policies and the Current Account	446
Gradual Trade Flow Adjustment and Current Account Dynamics	447
The J-Curve	447
Exchange Rate Pass-Through and Inflation	449
BOX: Exchange Rates and the Current Account	450
The Liquidity Trap	451
Summary	454

Appendix 1: Intertemporal Trade and Consumption Demand	458
Appendix 2: The Marshall-Lerner Condition and Empirical Estimates of Trade Elasticities	460
18 Fixed Exchange Rates and Foreign Exchange Intervention	463
Why Study Fixed Exchange Rates?	464
Central Bank Intervention and the Money Supply	465
The Central Bank Balance Sheet and the Money Supply	465
Foreign Exchange Intervention and the Money Supply	467
Sterilization	467
The Balance of Payments and the Money Supply	468
How the Central Bank Fixes the Exchange Rate	469
Foreign Exchange Market Equilibrium Under a Fixed Exchange Rate	469
Money Market Equilibrium Under a Fixed Exchange Rate	470
A Diagrammatic Analysis	471
Stabilization Policies with a Fixed Exchange Rate	472
Monetary Policy	472
Fiscal Policy	473
Changes in the Exchange Rate	474
Adjustment to Fiscal Policy and Exchange Rate Changes	476
Balance of Payments Crises and Capital Flight	476
Managed Floating and Sterilized Intervention	479
Perfect Asset Substitutability and the Ineffectiveness of Sterilized Intervention	479
BOX: Brazil's 1998–1999 Balance of Payments Crisis	480
Foreign Exchange Market Equilibrium Under Imperfect Asset Substitutability	481
The Effects of Sterilized Intervention with Imperfect Asset Substitutability	482
Evidence on the Effects of Sterilized Intervention	483
Reserve Currencies in the World Monetary System	484
The Mechanics of a Reserve Currency Standard	485
The Asymmetric Position of the Reserve Center	485
The Gold Standard	486
The Mechanics of a Gold Standard	486
Symmetric Monetary Adjustment Under a Gold Standard	487
Benefits and Drawbacks of the Gold Standard	487
The Bimetallic Standard	488
The Gold Exchange Standard	489
CASE STUDY: The Demand for International Reserves	489
Summary	493
Appendix 1: Equilibrium in the Foreign Exchange Market with Imperfect Asset Substitutability	498
Demand	498
Supply	499
Equilibrium	499
Appendix 2: The Timing of Balance of Payments Crises	501

Part 4 International Macroeconomic Policy **504**

19 International Monetary Systems: An Historical Overview	504
Macroeconomic Policy Goals in an Open Economy	505
Internal Balance: Full Employment and Price Level Stability	506
External Balance: The Optimal Level of the Current Account	507
Classifying Monetary Systems: The Open-Economy Trilemma	509

International Macroeconomic Policy Under the Gold Standard, 1870–1914	510
Origins of the Gold Standard	511
External Balance Under the Gold Standard	511
The Price-Specie-Flow Mechanism	511
The Gold Standard “Rules of the Game”: Myth and Reality	512
Internal Balance Under the Gold Standard	513
BOX: Hume versus the Mercantilists	514
CASE STUDY: The Political Economy of Exchange Rate Regimes:	
Conflict Over America’s Monetary Standard During the 1890s	514
The Interwar Years, 1918–1939	516
The Fleeting Return to Gold	516
International Economic Disintegration	516
CASE STUDY: The International Gold Standard and the Great Depression	517
The Bretton Woods System and the International Monetary Fund	518
Goals and Structure of the IMF	519
Convertibility and the Expansion of Private Financial Flows	520
Speculative Capital Flows and Crises	521
Analyzing Policy Options for Reaching Internal and External Balance	521
Maintaining Internal Balance	522
Maintaining External Balance	523
Expenditure-Changing and Expenditure-Switching Policies	523
The External Balance Problem of the United States Under Bretton Woods	525
CASE STUDY: The End of Bretton Woods, Worldwide Inflation,	
and the Transition to Floating Rates	526
The Mechanics of Imported Inflation	528
Assessment	529
The Case for Floating Exchange Rates	529
Monetary Policy Autonomy	530
Symmetry	531
Exchange Rates as Automatic Stabilizers	531
Exchange Rates and External Balance	533
CASE STUDY: The First Years of Floating Rates, 1973–1990	533
Macroeconomic Interdependence Under a Floating Rate	537
CASE STUDY: Transformation and Crisis in the World Economy	538
What Has Been Learned Since 1973?	544
Monetary Policy Autonomy	544
Symmetry	545
The Exchange Rate as an Automatic Stabilizer	546
External Balance	546
The Problem of Policy Coordination	547
Are Fixed Exchange Rates Even an Option for Most Countries?	547
Summary	548
Appendix: International Policy Coordination Failures	554

20 Optimum Currency Areas and the European Experience **557**

How the European Single Currency Evolved	559
What Has Driven European Monetary Cooperation?	559
The European Monetary System, 1979–1998	560
German Monetary Dominance and the Credibility Theory of the EMS	561
Market Integration Initiatives	562
European Economic and Monetary Union	563
The Euro and Economic Policy in the Euro Zone	564
The Maastricht Convergence Criteria and the Stability and Growth Pact	564

The European System of Central Banks	565
The Revised Exchange Rate Mechanism	566
The Theory of Optimum Currency Areas	566
Economic Integration and the Benefits of a Fixed Exchange Rate Area: The <i>GG</i> Schedule	566
Economic Integration and the Costs of a Fixed Exchange Rate Area: The <i>LL</i> Schedule	568
The Decision to Join a Currency Area: Putting the <i>GG</i> and <i>LL</i> Schedules Together	570
What Is an Optimum Currency Area?	572
CASE STUDY: Is Europe an Optimum Currency Area?	572
The Future of EMU	578
BOX: The Euro Zone Debt Crisis of 2010	580
Summary	582
21 Financial Globalization: Opportunity and Crisis	586
The International Capital Market and the Gains from Trade	587
Three Types of Gain from Trade	587
Risk Aversion	588
Portfolio Diversification as a Motive for International Asset Trade	589
The Menu of International Assets: Debt versus Equity	590
International Banking and the International Capital Market	590
The Structure of the International Capital Market	591
Offshore Banking and Offshore Currency Trading	592
The Growth of Eurocurrency Trading	593
The Importance of Regulatory Asymmetries	594
The Shadow Banking System	594
Regulating International Banking	595
The Problem of Bank Failure	595
CASE STUDY: Moral Hazard	597
Difficulties in Regulating International Banking	598
BOX: The Simple Algebra of Moral Hazard	599
International Regulatory Cooperation	599
CASE STUDY: Two Episodes of Market Turmoil: LTCM and the Global Financial Crisis of 2007–2009	601
BOX: Foreign Exchange Instability and Central Bank Swap Lines	606
How Well Have International Financial Markets Allocated Capital and Risk?	608
The Extent of International Portfolio Diversification	608
The Extent of Intertemporal Trade	610
Onshore-Offshore Interest Differentials	611
The Efficiency of the Foreign Exchange Market	611
Summary	615
22 Developing Countries: Growth, Crisis, and Reform	619
Income, Wealth, and Growth in the World Economy	620
The Gap Between Rich and Poor	620
Has the World Income Gap Narrowed Over Time?	621
Structural Features of Developing Countries	623
Developing-Country Borrowing and Debt	626
The Economics of Financial Inflows to Developing Countries	626
The Problem of Default	627
Alternative Forms of Financial Inflow	629
The Problem of “Original Sin”	631
The Debt Crisis of the 1980s	632
Reforms, Capital Inflows, and the Return of Crisis	633
East Asia: Success and Crisis	636
The East Asian Economic Miracle	636

BOX: Why Have Developing Countries Accumulated Such High Levels of International Reserves? .....	.637
Asian Weaknesses .....	.639
BOX: What Did East Asia Do Right? .....	.640
The Asian Financial Crisis .....	.641
Spillover to Russia .....	.642
CASE STUDY: Can Currency Boards Make Fixed Exchange Rates Credible? .....	.644
Lessons of Developing-Country Crises .....	.646
Reforming the World's Financial "Architecture" .....	.647
Capital Mobility and the Trilemma of the Exchange Rate Regime .....	.648
"Prophylactic" Measures .....	.649
Coping with Crisis .....	.650
CASE STUDY: China's Undervalued Currency .....	.651
Understanding Global Capital Flows and the Global Distribution of Income: Is Geography Destiny? .....	.653
Summary .....	.656

Mathematical Postscripts **661**

Postscript to Chapter 5: The Factor Proportions Model .....	.661
Factor Prices and Costs .....	.661
Goods Prices and Factor Prices .....	.663
Factor Supplies and Outputs .....	.664
Postscript to Chapter 6: The Trading World Economy .....	.665
Supply, Demand, and Equilibrium .....	.665
Supply, Demand, and the Stability of Equilibrium .....	.667
Effects of Changes in Supply and Demand .....	.669
Economic Growth .....	.669
A Transfer of Income .....	.670
A Tariff .....	.671
Postscript to Chapter 8: The Monopolistic Competition Model .....	.673
Postscript to Chapter 21: Risk Aversion and International Portfolio Diversification .....	.675
An Analytical Derivation of the Optimal Portfolio .....	.675
A Diagrammatic Derivation of the Optimal Portfolio .....	.676
The Effects of Changing Rates of Return .....	.679

Credits **683**

Index **685**

Online Appendices (www.pearsonhighered.com/krugman)

Appendix A to Chapter 6: International Transfers of Income and the Terms of Trade
The Transfer Problem
Effects of a Transfer on the Terms of Trade
Presumptions About the Terms of Trade Effects of Transfers
Appendix B to Chapter 6: Representing International Equilibrium with Offer Curves
Deriving a Country's Offer Curve
International Equilibrium
Appendix A to Chapter 9: Tariff Analysis in General Equilibrium
A Tariff in a Small Country
A Tariff in a Large Country
Appendix A to Chapter 17: The IS-LM Model and the DD-AA Model
Appendix A to Chapter 18: The Monetary Approach to the Balance of Payments

Preface

The global financial turmoil that began in August 2007 escalated into a full-blown financial crisis about nine months after the last edition of *International Economics: Theory & Policy* went to press. This ninth edition therefore comes out at a time when we are more aware than ever before of how events in the global economy influence each country's economic fortunes, policies, and political debates. The world that emerged from World War II was one in which trade, financial, and even communication links between countries were limited. More than a decade into the 21st century, however, the picture is very different. Globalization has arrived, big time. International trade in goods and services has expanded steadily over the past six decades thanks to declines in shipping and communication costs, globally negotiated reductions in government trade barriers, the widespread outsourcing of production activities, and a greater awareness of foreign cultures and products. New and better communications technologies, notably the Internet, have revolutionized the way people in all countries obtain and exchange information. International trade in financial assets such as currencies, stocks, and bonds has expanded at a much faster pace even than international product trade. This process brings benefits for owners of wealth but also creates risks of contagious financial instability. Those risks were realized during the recent global financial crisis, which spread quickly across national borders and has played out at huge cost to the world economy. Of all the changes on the international scene in recent decades, however, perhaps the biggest one remains the emergence of China—a development that is already redefining the international balance of economic and political power in the coming century.

Imagine the astonishment of the generation that lived through the depressed 1930s as adults, had its members been able to foresee the shape of today's world economy! Nonetheless, the economic concerns that continue to cause international debate have not changed that much from those that dominated the 1930s, nor indeed since they were first analyzed by economists more than two centuries ago. What are the merits of free trade among nations compared with protectionism? What causes countries to run trade surpluses or deficits with their trading partners, and how are such imbalances resolved over time? What causes banking and currency crises in open economies, what causes financial contagion between economies, and how should governments handle international financial instability? How can governments avoid unemployment and inflation, what role do exchange rates play in their efforts, and how can countries best cooperate to achieve their economic goals? As always in international economics, the interplay of events and ideas has led to new modes of analysis. In turn, these analytical advances, however abstruse they may seem at first, ultimately do end up playing a major role in governmental policies, in international negotiations, and in people's everyday lives. Globalization has made citizens of all countries much more aware than ever before of the worldwide economic forces that influence their fortunes, and globalization is here to stay.

New to the Ninth Edition

We are delighted to welcome Marc Melitz of Harvard University to our author team beginning in this ninth edition of *International Economics: Theory & Policy*. We have thoroughly updated the content and extensively revised several chapters. These revisions respond both to users' suggestions and to some important developments on the theoretical and practical sides of international economics. The most far-reaching changes are the following:

Chapter 4, Specific Factors and Income Distribution In response to popular demand, this chapter reinstates the specific factors model of trade, which allows for mobile,

general-purpose factors of production as well as factors that are unable to move between different industries. Aside from providing a simple and intuitively appealing account of why countries trade, the model is a useful tool for illustrating how trade creates clear losers as well as winners. This revised chapter also covers international labor movements and immigration within a theoretical framework based on the specific factors model.

Chapter 5, Resources and Trade: The Heckscher-Ohlin Model This edition offers expanded coverage of the effects on wage inequality of North-South trade, of technological change, and of outsourcing.

Chapter 6, The Standard Trade Model This chapter now contains our model of intertemporal trade. Global equilibrium is analyzed using the relative supply–relative demand framework rather than offer curves.

Chapter 8, Firms in the Global Economy: Export Decisions, Outsourcing, and Multinational Enterprises The second half of this chapter is entirely new and covers important recent research advances on the role of firms in international trade. Among the topics we feature are new models with performance differences across firms, discussion of how economic integration generates both winners and losers among firms in the same industry, and the productivity gains from economic integration. The chapter also develops models of multinational firms and of outsourcing.

Chapter 9, The Instruments of Trade Policy This chapter features an updated treatment of the effects of trade restrictions on United States firms.

Chapter 13, National Income Accounting and the Balance of Payments The discussion of balance of payments accounting has been thoroughly revised to reflect the recommendations in the sixth edition of the IMF's *Balance of Payments and International Investment Position Manual*. These conventions have been widely adopted internationally and will be phased in over the next few years in the official United States statistics on international transactions.

Chapter 18, Fixed Exchange Rates and Foreign Exchange Intervention The recent financial crisis has led a number of major central banks to lower target interest rates to, or close to, the zero lower bound. This chapter integrates the case of the liquidity trap into the development of the *DD-AA* model, thereby allowing the instructor to introduce the topic of “unconventional” monetary policies.

Chapter 19, International Monetary Systems: An Historical Overview This new chapter merges streamlined versions of prior Chapters 18 and 19, which covered, respectively, pre-1973 and post-1973 international monetary history. The chapter takes the open-economy *trilemma*, previously introduced in Chapter 21, as a guiding framework for understanding the evolution of the international monetary system since the late 19th century. The chapter features coverage of the macroeconomic antecedents and consequences of the global financial crisis of 2007–2009.

Chapter 21, Financial Globalization: Opportunity and Crisis The chapter contains extended discussion of shadow banking systems, moral hazard, and financial aspects of the 2007–2009 global crisis.

In addition to these structural changes, we have updated the book in other ways to maintain current relevance. Thus we examine linkages between trade and unemployment (Chapter 4); we review recent trends in foreign direct investment (Chapter 8); we discuss the carry trade in light of uncovered interest parity (Chapter 14); we describe the euro zone sovereign debt crisis that started in 2010 (Chapter 20); and we explain how the financial crisis of 2007–2009 gave rise to a global “dollar shortage,” leading central banks to establish an unprecedented network of currency swap lines (Chapter 21).

About the Book

The idea of writing this book came out of our experience in teaching international economics to undergraduates and business students since the late 1970s. We perceived two main challenges in teaching. The first was to communicate to students the exciting intellectual advances in this dynamic field. The second was to show how the development of international economic theory has traditionally been shaped by the need to understand the changing world economy and analyze actual problems in international economic policy.

We found that published textbooks did not adequately meet these challenges. Too often, international economics textbooks confront students with a bewildering array of special models and assumptions from which basic lessons are difficult to extract. Because many of these special models are outmoded, students are left puzzled about the real-world relevance of the analysis. As a result, many textbooks often leave a gap between the somewhat antiquated material to be covered in class and the exciting issues that dominate current research and policy debates. That gap has widened dramatically as the importance of international economic problems—and enrollments in international economics courses—have grown.

This book is our attempt to provide an up-to-date and understandable analytical framework for illuminating current events and bringing the excitement of international economics into the classroom. In analyzing both the real and monetary sides of the subject, our approach has been to build up, step by step, a simple, unified framework for communicating the grand traditional insights as well as the newest findings and approaches. To help the student grasp and retain the underlying logic of international economics, we motivate the theoretical development at each stage by pertinent data and policy questions.

The Place of This Book in the Economics Curriculum

Students assimilate international economics most readily when it is presented as a method of analysis vitally linked to events in the world economy, rather than as a body of abstract theorems about abstract models. Our goal has therefore been to stress concepts and their application rather than theoretical formalism. Accordingly, the book does not presuppose an extensive background in economics. Students who have had a course in economic principles will find the book accessible, but students who have taken further courses in microeconomics or macroeconomics will find an abundant supply of new material. Specialized appendices and mathematical postscripts have been included to challenge the most advanced students.

We follow the standard practice of dividing the book into two halves, devoted to trade and to monetary questions. Although the trade and monetary portions of international economics are often treated as unrelated subjects, even within one textbook, similar themes and methods recur in both subfields. One example is the idea of gains from trade, which is important in understanding the effects of free trade in assets as well as free trade in goods. International borrowing and lending provide another example. The process by which countries trade present for future consumption is best explained in terms of comparative

advantage (which is why we introduce it in the book's first half), but the resulting insights deepen understanding of the external macroeconomic problems of developing and developed economies alike. We have made it a point to illuminate connections between the trade and monetary areas when they arise.

At the same time, we have made sure that the book's two halves are completely self-contained. Thus, a one-semester course on trade theory can be based on Chapters 2 through 12, and a one-semester course on international monetary economics can be based on Chapters 13 through 22. If you adopt the book for a full-year course covering both subjects, however, you will find a treatment that does not leave students wondering why the principles underlying their work on trade theory have been discarded over the winter break.

Some Distinctive Features of *International Economics: Theory & Policy*

This book covers the most important recent developments in international economics without shortchanging the enduring theoretical and historical insights that have traditionally formed the core of the subject. We have achieved this comprehensiveness by stressing how recent theories have evolved from earlier findings in response to an evolving world economy. Both the real trade portion of the book (Chapters 2 through 12) and the monetary portion (Chapters 13 through 22) are divided into a core of chapters focused on theory, followed by chapters applying the theory to major policy questions, past and current.

In Chapter 1 we describe in some detail how this book addresses the major themes of international economics. Here we emphasize several of the newer topics that previous authors failed to treat in a systematic way.

Asset Market Approach to Exchange Rate Determination

The modern foreign exchange market and the determination of exchange rates by national interest rates and expectations are at the center of our account of open-economy macroeconomics. The main ingredient of the macroeconomic model we develop is the interest parity relation (augmented later by risk premiums). Among the topics we address using the model are exchange rate "overshooting"; inflation targeting; behavior of real exchange rates; balance-of-payments crises under fixed exchange rates; and the causes and effects of central bank intervention in the foreign exchange market.

Increasing Returns and Market Structure

Even before discussing the role of comparative advantage in promoting international exchange and the associated welfare gains, we visit the forefront of theoretical and empirical research by setting out the gravity model of trade (Chapter 2). We return to the research frontier (in Chapters 7 and 8) by explaining how increasing returns and product differentiation affect trade and welfare. The models explored in this discussion capture significant aspects of reality, such as intraindustry trade and shifts in trade patterns due to dynamic scale economies. The models show, too, that mutually beneficial trade need not be based on comparative advantage.

Firms in International Trade

Chapter 8 also summarizes exciting new research focused on the role of firms in international trade. The chapter emphasizes that different firms may fare differently in the face of globalization. The expansion of some and the contraction of others shift overall production

toward more efficient producers within industrial sectors, raising overall productivity and thereby generating gains from trade. Those firms that expand in an environment of freer trade may have incentives to outsource some of their production activities abroad or take up multinational production, as we describe in the chapter.

Politics and Theory of Trade Policy

Starting in Chapter 4, we stress the effect of trade on income distribution as the key political factor behind restrictions on free trade. This emphasis makes it clear to students why the prescriptions of the standard welfare analysis of trade policy seldom prevail in practice. Chapter 12 explores the popular notion that governments should adopt activist trade policies aimed at encouraging sectors of the economy seen as crucial. The chapter includes a theoretical discussion of such trade policy based on simple ideas from game theory.

International Macroeconomic Policy Coordination

Our discussion of international monetary experience (Chapters 19, 20, and 22) stresses the theme that different exchange rate systems have led to different policy coordination problems for their members. Just as the competitive gold scramble of the interwar years showed how beggar-thy-neighbor policies can be self-defeating, the current float challenges national policymakers to recognize their interdependence and formulate policies cooperatively.

The World Capital Market and Developing Countries

A broad discussion of the world capital market is given in Chapter 21, which takes up the welfare implications of international portfolio diversification as well as problems of prudential supervision of internationally active banks and other financial institutions. Chapter 22 is devoted to the long-term growth prospects and to the specific macroeconomic stabilization and liberalization problems of industrializing and newly industrialized countries. The chapter reviews emerging market crises and places in historical perspective the interactions among developing country borrowers, developed country lenders, and official financial institutions such as the International Monetary Fund. Chapter 22 also reviews China's exchange-rate policies and recent research on the persistence of poverty in the developing world.

Learning Features

This book incorporates a number of special learning features that will maintain students' interest in the presentation and help them master its lessons.

Case Studies

Case studies that perform the threefold role of reinforcing material covered earlier, illustrating its applicability in the real world, and providing important historical information often accompany theoretical discussions.

Special Boxes

Less central topics that nonetheless offer particularly vivid illustrations of points made in the text are treated in boxes. Among these are U.S. President Thomas Jefferson's trade embargo of 1807–1809 (p. 36); the astonishing ability of disputes over banana trade to generate acrimony among countries far too cold to grow any of their own bananas (p. 248); markets for nondeliverable forward exchange (p. 330); and the rapid accumulation of foreign exchange reserves by developing countries (p. 637).

Captioned Diagrams

More than 200 diagrams are accompanied by descriptive captions that reinforce the discussion in the text and help the student in reviewing the material.

Learning Goals

A list of essential concepts sets the stage for each chapter in the book. These learning goals help students assess their mastery of the material.

Summary and Key Terms

Each chapter closes with a summary recapitulating the major points. Key terms and phrases appear in boldface type when they are introduced in the chapter and are listed at the end of each chapter. To further aid student review of the material, key terms are italicized when they appear in the chapter summary.

Problems

Each chapter is followed by problems intended to test and solidify students' comprehension. The problems range from routine computational drills to "big picture" questions suitable for classroom discussion. In many problems we ask students to apply what they have learned to real-world data or policy questions.

Further Readings

For instructors who prefer to supplement the textbook with outside readings, and for students who wish to probe more deeply on their own, each chapter has an annotated bibliography that includes established classics as well as up-to-date examinations of recent issues.

Student and Instructor Resources



MyEconLab is the premier online assessment and tutorial system, pairing rich online content with innovative learning tools. The MyEconLab course for the ninth edition of *International Economics: Theory & Policy* includes all end-of-chapter problems from the text, which can be easily assigned and automatically graded.

Students and MyEconLab

This online homework and tutorial system puts students in control of their own learning through a suite of study and practice tools correlated with the online, interactive version of the textbook and learning aids such as animated figures. Within MyEconLab's structured environment, students practice what they learn, test their understanding, and then pursue a study plan that MyEconLab generates for them based on their performance.

Instructors and MyEconLab

MyEconLab provides flexible tools that allow instructors easily and effectively to customize online course materials to suit their needs. Instructors can create and assign tests, quizzes, or homework assignments. MyEconLab saves time by automatically grading all questions and tracking results in an online gradebook. MyEconLab can even grade assignments that require students to draw a graph.

After registering for MyEconLab instructors have access to downloadable supplements such as an instructor's manual, PowerPoint lecture notes, and a test bank. The test bank can also be used within MyEconLab, giving instructors ample material from which they can create assignments—or the Custom Exercise Builder makes it easy for instructors to create their own questions.

Weekly news articles, video, and RSS feeds help keep students up to date on current events and make it easy for instructors to incorporate relevant news in lectures and homework.

For advanced communication and customization, MyEconLab is delivered in CourseCompass. Instructors can upload course documents and assignments, and use advanced course management features. For more information about MyEconLab or to request an instructor access code, visit www.myeconlab.com.

Additional Supplementary Resources

A full range of additional supplementary materials to support teaching and learning accompanies this book.

- The Study Guide, written by Linda S. Goldberg of the Federal Reserve Bank of New York, Michael W. Klein of Tufts University, Jay C. Shambaugh of Dartmouth College, and Hiroyuki Ito of Portland State University, aids students by providing a review of central concepts from the text, review questions, and answers to odd-numbered textbook problems.
- The Online Instructor's Manual—updated by Hisham Foad of San Diego State University—includes chapter overviews and answers to the end-of-chapter problems.
- The Online Test Bank offers a rich array of multiple-choice and essay questions, plus mathematical and graphing problems, for each textbook chapter. It is available in Word, PDF, and TestGen formats. This Test Bank was carefully revised and updated by Robert F. Brooker of Gannon University.
- The Computerized Test Bank reproduces the Test Bank material in the TestGen software that is available for Windows and Macintosh. With TestGen, instructors can easily edit existing questions, add questions, generate tests, and print the tests in variety of formats.
- The Online PowerPoint Presentation with Art, Figures, & Lecture Notes was revised by Amy Glass of Texas A&M University. This resource contains all text figures and tables and can be used for in-class presentations or as transparency masters.
- The Companion Web Site at www.pearsonhighered.com/krugman contains additional appendices. (See p. xx of the Contents for a detailed list of the Online Appendices.)

Instructors can download supplements from our secure Instructor's Resource Center. Please visit www.pearsonhighered.com/irc.

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Paul R. Krugman
Maurice Obstfeld
Marc J. Melitz
 October 2010

Introduction

You could say that the study of international trade and finance is where the discipline of economics as we know it began. Historians of economic thought often describe the essay “Of the Balance of Trade” by the Scottish philosopher David Hume as the first real exposition of an economic model. Hume published his essay in 1758, almost 20 years before his friend Adam Smith published *The Wealth of Nations*. And the debates over British trade policy in the early 19th century did much to convert economics from a discursive, informal field to the model-oriented subject it has been ever since.

Yet the study of international economics has never been as important as it is now. In the early 21st century, nations are more closely linked through trade in goods and services, flows of money, and investment in each other’s economies than ever before. And the global economy created by these linkages is a turbulent place: Both policy makers and business leaders in every country, including the United States, must now pay attention to what are sometimes rapidly changing economic fortunes halfway around the world.

A look at some basic trade statistics gives us a sense of the unprecedented importance of international economic relations. Figure 1-1 shows the levels of U.S. exports and imports as shares of gross domestic product from 1960 to 2009. The most obvious feature of the figure is the long-term upward trend in both shares: International trade has roughly tripled in importance compared with the economy as a whole.

Almost as obvious is that, while both imports and exports have increased, imports have grown more, leading to a large excess of imports over exports. How is the United States able to pay for all those imported goods? The answer is that the money is supplied by large inflows of capital, money invested by foreigners willing to take a stake in the U.S. economy. Inflows of capital on that scale would once have been inconceivable; now they are taken for granted. And so the gap between imports and exports is an indicator of another aspect of growing international linkages, in this case the growing linkages between national capital markets.

Finally, notice that both imports and exports took a plunge in 2009. This decline reflected the global economic crisis that began in 2008, and is a reminder of the close links between world trade and the overall state of the world economy.

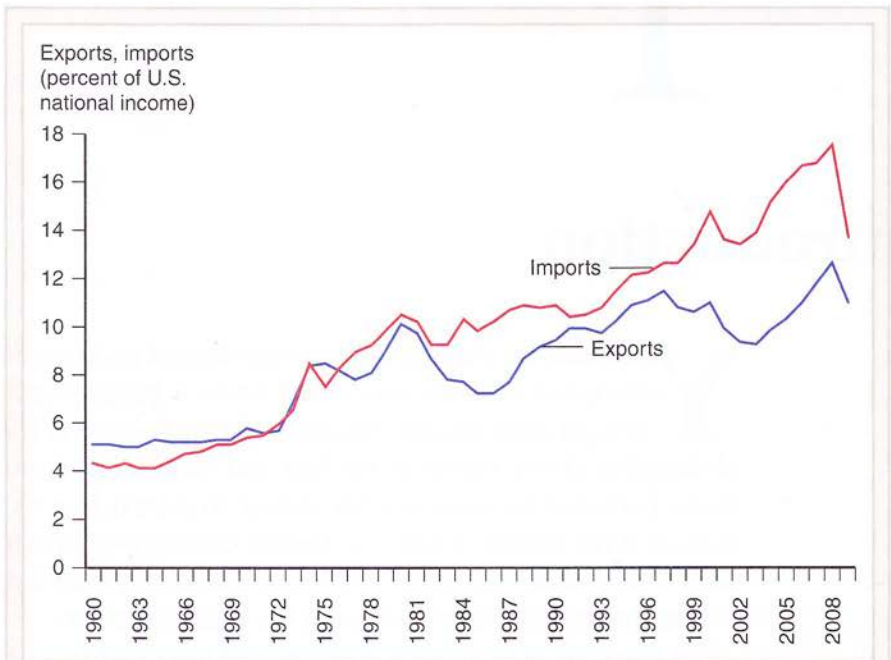


Figure 1-1

Exports and Imports as a Percentage of U.S. National Income

Both imports and exports have risen as a share of the U.S. economy, but imports have risen more.

Source: U.S. Bureau of Economic Analysis.

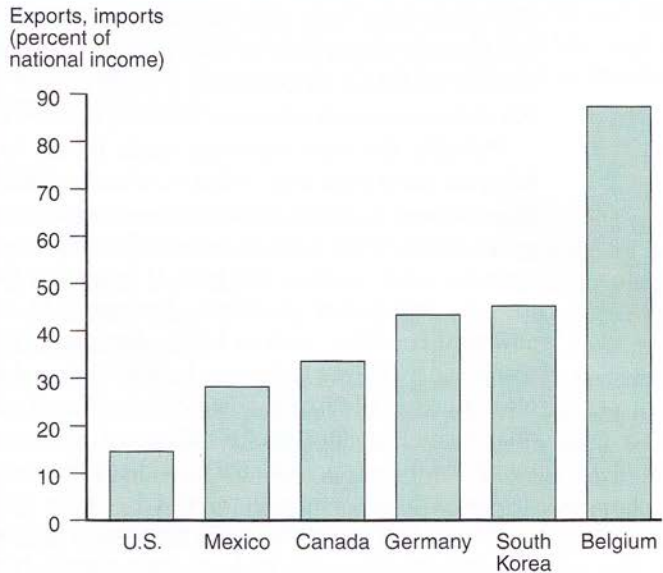
If international economic relations have become crucial to the United States, they are even more crucial to other nations. Figure 1-2 shows the average of imports and exports as a share of GDP for a sample of countries. The United States, by virtue of its size and the diversity of its resources, relies less on international trade than almost any other country.

This book introduces the main concepts and methods of international economics and illustrates them with applications drawn from the real world. Much of the book is devoted to old ideas that are still as valid as ever: The 19th-century trade theory of David Ricardo and even the 18th-century monetary analysis of David Hume remain highly relevant to the 21st-century world economy. At the same time, we have made a special effort to bring the analysis up to date. Over the past decade the global economy threw up many new challenges, from the backlash against globalization to an unprecedented series of financial crises. Economists were able to apply existing analyses to some of these challenges, but they were also forced to rethink some important concepts. Furthermore, new approaches have emerged to old questions, such as the impacts of changes in monetary and fiscal policy. We have attempted to convey the key ideas that have emerged in recent research while stressing the continuing usefulness of *old ideas*.

Figure 1-2**Average of Exports and Imports as Percentages of National Income in 2007**

International trade is even more important to most other countries than it is to the United States.

Source: Organization for Economic Cooperation and Development.

**LEARNING GOALS**

After reading this chapter, you will be able to:

- Distinguish between international and domestic economic issues.
- Explain why seven themes recur in international economics, and discuss their significance.
- Distinguish between the trade and monetary aspects of international economics.

What Is International Economics About?

International economics uses the same fundamental methods of analysis as other branches of economics, because the motives and behavior of individuals are the same in international trade as they are in domestic transactions. Gourmet food shops in Florida sell coffee beans from both Mexico and Hawaii; the sequence of events that brought those beans to the shop is not very different, and the imported beans traveled a much shorter distance than the beans shipped within the United States! Yet international economics involves new and different concerns, because international trade and investment occur between independent nations. The United States and Mexico are sovereign states; Florida and Hawaii are not. Mexico's coffee shipments to Florida could be disrupted if the U.S. government imposed a quota that limits imports; Mexican coffee could suddenly become cheaper to U.S. buyers if the peso were to fall in value against the dollar. By contrast, neither of those events can happen in commerce within the United States because the Constitution forbids restraints on interstate trade and all U.S. states use the same currency.

The subject matter of international economics, then, consists of issues raised by the special problems of economic interaction between sovereign states. Seven themes recur throughout the study of international economics: (1) the gains from trade, (2) the pattern of trade, (3) protectionism, (4) the balance of payments, (5) exchange rate determination, (6) international policy coordination, and (7) the international capital market.

The Gains from Trade

Everybody knows that some international trade is beneficial—for example, nobody thinks that Norway should grow its own oranges. Many people are skeptical, however, about the benefits of trading for goods that a country could produce for itself. Shouldn't Americans buy American goods whenever possible, to help create jobs in the United States?

Probably the most important single insight in all of international economics is that there are *gains from trade*—that is, when countries sell goods and services to each other, this exchange is almost always to their mutual benefit. The range of circumstances under which international trade is beneficial is much wider than most people imagine. It is a common misconception that trade is harmful if there are large disparities between countries in productivity or wages. On one side, businesspeople in less technologically advanced countries, such as India, often worry that opening their economies to international trade will lead to disaster because their industries won't be able to compete. On the other side, people in technologically advanced nations where workers earn high wages often fear that trading with less advanced, lower-wage countries will drag their standard of living down—one presidential candidate memorably warned of a “giant sucking sound” if the United States were to conclude a free trade agreement with Mexico.

Yet the first model this book presents of the causes of trade (Chapter 3) demonstrates that two countries can trade to their mutual benefit even when one of them is more efficient than the other at producing everything, and when producers in the less efficient country can compete only by paying lower wages. We'll also see that trade provides benefits by allowing countries to export goods whose production makes relatively heavy use of resources that are locally abundant while importing goods whose production makes heavy use of resources that are locally scarce (Chapter 5). International trade also allows countries to specialize in producing narrower ranges of goods, giving them greater efficiencies of large-scale production.

Nor are the benefits of international trade limited to trade in tangible goods. International migration and international borrowing and lending are also forms of mutually beneficial trade—the first a trade of labor for goods and services (Chapter 4), the second a trade of current goods for the promise of future goods (Chapter 6). Finally, international exchanges of risky assets such as stocks and bonds can benefit all countries by allowing each country to diversify its wealth and reduce the variability of its income (Chapter 21). These invisible forms of trade yield gains as real as the trade that puts fresh fruit from Latin America in Toronto markets in February.

Although nations generally gain from international trade, it is quite possible that international trade may hurt particular groups *within* nations—in other words, that international trade will have strong effects on the distribution of income. The effects of trade on income distribution have long been a concern of international trade theorists, who have pointed out that:

International trade can adversely affect the owners of resources that are “specific” to industries that compete with imports, that is, cannot find alternative employment in other industries. Examples would include specialized machinery, such as power looms made less valuable by textile imports, and workers with specialized skills, like fishermen who find the value of their catch reduced by imported seafood.

Trade can also alter the distribution of income between broad groups, such as workers and the owners of capital.

These concerns have moved from the classroom into the center of real-world policy debate, as it has become increasingly clear that the real wages of less-skilled workers in

the United States have been declining even though the country as a whole is continuing to grow richer. Many commentators attribute this development to growing international trade, especially the rapidly growing exports of manufactured goods from low-wage countries. Assessing this claim has become an important task for international economists and is a major theme of Chapters 4 through 6.

The Pattern of Trade

Economists cannot discuss the effects of international trade or recommend changes in government policies toward trade with any confidence unless they know their theory is good enough to explain the international trade that is actually observed. As a result, attempts to explain the pattern of international trade—who sells what to whom—have been a major preoccupation of international economists.

Some aspects of the pattern of trade are easy to understand. Climate and resources clearly explain why Brazil exports coffee and Saudi Arabia exports oil. Much of the pattern of trade is more subtle, however. Why does Japan export automobiles, while the United States exports aircraft? In the early 19th century, English economist David Ricardo offered an explanation of trade in terms of international differences in labor productivity, an explanation that remains a powerful insight (Chapter 3). In the 20th century, however, alternative explanations also were proposed. One of the most influential, but still controversial, explanations links trade patterns to an interaction between the relative supplies of national resources such as capital, labor, and land on one side and the relative use of these factors in the production of different goods on the other. We present this theory in Chapter 5. Recent efforts to test the implications of this theory, however, appear to show that it is less valid than many had previously thought. More recently still, some international economists have proposed theories that suggest a substantial random component in the pattern of international trade, theories that are developed in Chapters 7 and 8.

How Much Trade?

If the idea of gains from trade is the most important theoretical concept in international economics, the seemingly eternal debate over how much trade to allow is its most important policy theme. Since the emergence of modern nation-states in the 16th century, governments have worried about the effect of international competition on the prosperity of domestic industries and have tried either to shield industries from foreign competition by placing limits on imports or to help them in world competition by subsidizing exports. The single most consistent mission of international economics has been to analyze the effects of these so-called protectionist policies—and usually, though not always, to criticize protectionism and show the advantages of freer international trade.

The debate over how much trade to allow took a new direction in the 1990s. After World War II the advanced democracies, led by the United States, pursued a broad policy of removing barriers to international trade; this policy reflected the view that free trade was a force not only for prosperity but also for promoting world peace. In the first half of the 1990s, several major free trade agreements were negotiated. The most notable were the North American Free Trade Agreement (NAFTA) between the United States, Canada, and Mexico, approved in 1993, and the so-called Uruguay Round agreement, which established the World Trade Organization in 1994.

Since that time, however, an international political movement opposing “globalization” has gained many adherents. The movement achieved notoriety in 1999, when demonstrators representing a mix of traditional protectionists and new ideologies disrupted a major international trade meeting in Seattle. If nothing else, the anti-globalization movement has forced advocates of free trade to seek new ways to explain their views.

As befits both the historical importance and the current relevance of the protectionist issue, roughly a quarter of this book is devoted to this subject. Over the years, international economists have developed a simple yet powerful analytical framework for determining the effects of government policies that affect international trade. This framework helps predict the effects of trade policies, while also allowing for cost-benefit analysis and defining criteria for determining when government intervention is good for the economy. We present this framework in Chapters 9 and 10 and use it to discuss a number of policy issues in those chapters and in the two that follow.

In the real world, however, governments do not necessarily do what the cost-benefit analysis of economists tells them they should. This does not mean that analysis is useless. Economic analysis can help make sense of the politics of international trade policy, by showing who benefits and who loses from such government actions as quotas on imports and subsidies to exports. The key insight of this analysis is that conflicts of interest *within* nations are usually more important in determining trade policy than conflicts of interest *between* nations. Chapters 4 and 5 show that trade usually has very strong effects on income distribution within countries, while Chapters 10 through 12 reveal that the relative power of different interest groups within countries, rather than some measure of overall national interest, is often the main determining factor in government policies toward international trade.

Balance of Payments

In 1998 both China and South Korea ran large trade surpluses of about \$40 billion each. In China's case the trade surplus was not out of the ordinary—the country had been running large surpluses for several years, prompting complaints from other countries, including the United States, that China was not playing by the rules. So is it good to run a trade surplus and bad to run a trade deficit? Not according to the South Koreans: Their trade surplus was forced on them by an economic and financial crisis, and they bitterly resented the necessity of running that surplus.

This comparison highlights the fact that a country's *balance of payments* must be placed in the context of an economic analysis to understand what it means. It emerges in a variety of specific contexts: in discussing foreign direct investment by multinational corporations (Chapter 8), in relating international transactions to national income accounting (Chapter 13), and in discussing virtually every aspect of international monetary policy (Chapters 17 through 22). Like the problem of protectionism, the balance of payments has become a central issue for the United States because the nation has run huge trade deficits in every year since 1982.

Exchange Rate Determination

The euro, a common currency for most of the nations of Western Europe, was introduced on January 1, 1999. On that day the euro was worth about \$1.17. By early 2002, the euro was worth only about \$0.85, denting Europe's pride (although helping its exporters). By late 2007, the euro was worth more than \$1.40; by the middle of 2010, it had slid back to \$1.29.

A key difference between international economics and other areas of economics is that countries usually have their own currencies—the euro being the exception that proves the rule. And as the example of the euro/dollar exchange rate illustrates, the relative values of currencies can change over time, sometimes drastically.

For historical reasons, the study of exchange rate determination is a relatively new part of international economics. For much of modern economic history, exchange rates were fixed by government action rather than determined in the marketplace. Before World War I the values of the world's major currencies were fixed in terms of gold; for a generation

after World War II, the values of most currencies were fixed in terms of the U.S. dollar. The analysis of international monetary systems that fix exchange rates remains an important subject. Chapter 18 is devoted to the working of fixed-rate systems, Chapter 19 to the historical performance of alternative exchange-rate systems, and Chapter 20 to the economics of currency areas such as the European monetary union. For the time being, however, some of the world's most important exchange rates fluctuate minute by minute and the role of changing exchange rates remains at the center of the international economics story. Chapters 14 through 17 focus on the modern theory of floating exchange rates.

International Policy Coordination

The international economy comprises sovereign nations, each free to choose its own economic policies. Unfortunately, in an integrated world economy, one country's economic policies usually affect other countries as well. For example, when Germany's Bundesbank raised interest rates in 1990—a step it took to control the possible inflationary impact of the reunification of West and East Germany—it helped precipitate a recession in the rest of Western Europe. Differences in goals among countries often lead to conflicts of interest. Even when countries have similar goals, they may suffer losses if they fail to coordinate their policies. A fundamental problem in international economics is determining how to produce an acceptable degree of harmony among the international trade and monetary policies of different countries in the absence of a world government that tells countries what to do.

For almost 70 years, international trade policies have been governed by an international treaty known as the General Agreement on Tariffs and Trade (GATT). Since 1994, trade rules have been enforced by an international organization, the World Trade Organization, that can tell countries, including the United States, that their policies violate prior agreements. We discuss the rationale for this system in Chapter 9 and look at whether the current rules of the game for international trade in the world economy can or should survive.

While cooperation on international trade policies is a well-established tradition, coordination of international macroeconomic policies is a newer and more uncertain topic. Only in the past few years have economists formulated at all precisely the case for macroeconomic policy coordination. Nonetheless, attempts at international macroeconomic coordination are occurring with growing frequency in the real world. Both the theory of international macroeconomic coordination and the developing experience are reviewed in Chapter 19.

The International Capital Market

During the 1970s, banks in advanced countries lent large sums to firms and governments in poorer nations, especially in Latin America. In 1982, however, first Mexico, then a number of other countries, found themselves unable to pay back the money they owed. The resulting “debt crisis” persisted until 1990. In the 1990s, investors once again became willing to put hundreds of billions of dollars into “emerging markets,” both in Latin America and in the rapidly growing economies of Asia. All too soon, however, this investment boom came to grief as well; Mexico experienced another financial crisis at the end of 1994, much of Asia was caught up in a massive crisis beginning in the summer of 1997, and Argentina had a severe crisis in 2002. This roller coaster history contains many lessons, the most undisputed of which is the growing importance of the international capital market.

In any sophisticated economy there is an extensive capital market: a set of arrangements by which individuals and firms exchange money now for promises to pay in the future. The growing importance of international trade since the 1960s has been accompanied by a

growth in the *international* capital market, which links the capital markets of individual countries. Thus in the 1970s, oil-rich Middle Eastern nations placed their oil revenues in banks in London or New York, and these banks in turn lent money to governments and corporations in Asia and Latin America. During the 1980s, Japan converted much of the money it earned from its booming exports into investments in the United States, including the establishment of a growing number of U.S. subsidiaries of Japanese corporations. Nowadays China is funneling its own export earnings into a range of foreign assets, including dollars that its government holds as international reserves.

International capital markets differ in important ways from domestic capital markets. They must cope with special regulations that many countries impose on foreign investment; they also sometimes offer opportunities to evade regulations placed on domestic markets. Since the 1960s, huge international capital markets have arisen, most notably the remarkable London Eurodollar market, in which billions of dollars are exchanged each day without ever touching the United States.

Some special risks are associated with international capital markets. One risk is that of currency fluctuations: If the euro falls against the dollar, U.S. investors who bought euro bonds suffer a capital loss—as the many investors who had assumed that Europe’s new currency would be strong discovered to their horror. Another risk is that of national default: A nation may simply refuse to pay its debts (perhaps because it cannot), and there may be no effective way for its creditors to bring it to court. International financial linkages helped turn the downturn in the U.S. housing market that had begun in 2006 into a global economic crisis.

The growing importance of international capital markets and their new problems demand greater attention than ever before. This book devotes two chapters to issues arising from international capital markets: one on the functioning of global asset markets (Chapter 21) and one on foreign borrowing by developing countries (Chapter 22).

International Economics: Trade and Money

The economics of the international economy can be divided into two broad subfields: the study of *international trade* and the study of *international money*. International trade analysis focuses primarily on the *real* transactions in the international economy, that is, on those transactions that involve a physical movement of goods or a tangible commitment of economic resources. International monetary analysis focuses on the *monetary* side of the international economy, that is, on financial transactions such as foreign purchases of U.S. dollars. An example of an international trade issue is the conflict between the United States and Europe over Europe’s subsidized exports of agricultural products; an example of an international monetary issue is the dispute over whether the foreign exchange value of the dollar should be allowed to float freely or be stabilized by government action.

In the real world there is no simple dividing line between trade and monetary issues. Most international trade involves monetary transactions, while, as the examples in this chapter already suggest, many monetary events have important consequences for trade. Nonetheless, the distinction between international trade and international money is useful. The first half of this book covers international trade issues. Part One (Chapters 2 through 8) develops the analytical theory of international trade, and Part Two (Chapters 9 through 12) applies trade theory to the analysis of government policies toward trade. The second half of the book is devoted to international monetary issues. Part Three (Chapters 13 through 18) develops international monetary theory, and Part Four (Chapters 19 through 22) applies this analysis to international monetary policy.



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