



International Economics



FIFTH EDITION

APPLEYARD | FIELD | COBB



INTERNATIONAL ECONOMICS

FIFTH EDITION

DENNIS R. APPLEYARD
DAVIDSON COLLEGE

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UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL

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The authors dedicate this book to parents, family, and friends whose love and support has sustained us in the writing process. D.R.A. particularly dedicates this edition to the memory of Gwen, whose thoughtfulness and love knew no bounds.

ABOUT THE AUTHORS

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Dennis R. Appleyard is James B. Duke Professor of International Studies and Professor of Economics at Davidson College, Davidson, North Carolina. He attended Ohio Wesleyan University for his undergraduate work and the University of Michigan for his Master's and Ph.D. work. He joined the economics faculty at the University of North Carolina at Chapel Hill in 1966 and received the university-wide Tanner Award for "Excellence in Inspirational Teaching of Undergraduate Students" in 1983. He moved to his current position at Davidson College in 1990. At Davidson, he has been Chair of the Department of Economics and Director of the college's Semester-in-India Program in fall 1996 and Semester-in-India and Nepal Program in fall 2000. In 2004 he received Davidson's Thomas Jefferson Award for teaching and service.

Professor Appleyard has taught economic principles, intermediate microeconomics, intermediate macroeconomics, money and banking, international economics, and economic development. His research interests lie in international trade theory and policy and in the Indian economy. Published work, much of it done in conjunction with Professor Field, has appeared in the *American Economic Review*, *History of Political Economy*, *Indian Economic Journal*, *International Economic Review*, *Journal of Economic Education*, and *Journal of International Economics*, among others. He has also done consulting work for the World Bank, the U.S. Department of the Treasury, and the Food and Agriculture Organization of the United Nations (in Islamabad, Pakistan). Professor Appleyard derives genuine pleasure from working with students, and he thinks that teaching keeps him young in spirit, since his students are always the same age! He is also firmly convinced that having the opportunity to teach international economics in this age of growing globalization is a rare privilege and an enviable challenge.

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Alfred J. Field is a Professor of Economics and the Associate Chair/Director of the Undergraduate Program in Economics at the University of North Carolina at Chapel Hill. He received his undergraduate and graduate training at Iowa State University and joined the faculty at Carolina in 1967. Field teaches courses in international economics and economic development at both the graduate and undergraduate level, has directed numerous Senior Honors theses and Masters theses, and has served as principal member or director of more than 100 Ph.D. dissertations. In 1996, he received the Department's Jae Yeong Song and Chunuk Park Award for Excellence in Graduate Teaching. He is currently on the Faculty Advisory Board of several university organizations, including the Institute for Latin American Studies.

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Steven L. Cobb is an Associate Professor in the Department of Economics at the University of North Texas. He currently serves as Director of the Center for Economic Education and is Chair of the Department of Economics. He attended Southwestern University for his undergraduate work in Economics and Political Science. Cobb was a student of Appleyard and Field and received his Ph.D. in Economics in 1987 from the University of North Carolina at Chapel Hill. He joined the faculty at the University of North Texas in 1986 and teaches principles of microeconomics and principles of macroeconomics at the undergraduate level and courses in international economics, comparative economic systems, economic development, and history of economic thought, at both the graduate and undergraduate level. Cobb is a three-time recipient of the Mortar Board Top Prof Award and two-time recipient of UNT's Professing Women Award. He also served as President of the National Association of Economic Educators (NAEE) in 2000.

Professor Cobb researches in the areas of economic education, international trade, and economic development. His research interests lie in the areas of internationalization of university curriculum, the impact of attitudes on student performance in economics, cross-cultural training and technology transfer, and U.S.–Mexico trade and immigration. Cobb has also been involved as a consultant and trainer for the National Council on Economic Education's Training of Trainers program in the newly independent states of the former Soviet Union. The program is funded by the U.S. Department of Education and is designed to provide materials and training to allow economists in these nations to teach economics from a market perspective. Cobb has conducted training programs in Russia, Estonia, Latvia, Lithuania, Poland, Belarus, Ukraine, Romania, Bulgaria, Kazakhstan, and Uzbekistan. He enjoys the international aspect of his work and tries to integrate this experience into his teaching.

PREFACE

It is our view that, as the new millennium gets under way amid a dramatic increase in globalization, every student must have a conscious awareness of “things international.” Whether one is studying, for example, political science, sociology, chemistry, art, history, or economics, developments worldwide impinge upon the subject matter of the chosen discipline. Such developments may take the form of the discovery of a new compound in Germany, an unexpected election result in India, an archeological find in Cyprus, a new awareness of AIDS in Sierra Leone, or a startling new political/terrorist/military development in Afghanistan, Iraq, or Israel. And, because information now gets transmitted instantaneously across continents and oceans, scientists, governments, firms, and households all react quickly to new information by altering behavior in laboratories, clinics, legislative processes, production and marketing strategies, consumption and travel decisions, and research projects. Without keeping track of international developments, today’s student will be unable to understand the changing nature of the world and the material that he or she is studying.

In addition to perceiving the need for international awareness on the part of students in general, we think it is absolutely mandatory that students with an interest in economics recognize that international economic events and the international dimensions of the subject surround us every day. As we prepared to launch this fifth edition of *International Economics*, we could not help noting how much had changed since the initial writing for our first edition. The world has economically internationalized even faster than we anticipated 16 years ago, and the awareness of the role of international issues in our lives has increased substantially. Almost daily, headlines focus on developments such as the European Union and the increased economic integration efforts that have fostered monetary union and the euro; policy issues related to reducing trade barriers and the effects of threatened retaliatory actions such as the United States has experienced with its recent steel tariffs; increased integration efforts such as the ongoing negotiations of the Free Trade Agreement for the Americas; and the tensions accompanying growth, structural change, and globalization that surfaced at meetings of international economic organizations such as the World Bank and the World Trade Organization. Beyond these broad issues, headlines also trumpet news of the U.S. trade deficit, rising (or falling) gasoline prices, Chinese clothing, and outsourcing to call centers in India.

The growing awareness of the importance of international issues is also in evidence in increased student interest in such issues, particularly those related to employment, international working conditions, and equity. It is thus increasingly important that individuals have a practical working knowledge of the economic fundamentals underlying international actions to find their way through the myriad arguments, emotions, and statistics that bombard them almost daily. Young, budding economists need to be equipped with the framework, the tools, and the basic institutional knowledge that will permit them to make sense of the increasingly interdependent economic environment. Further, there will be few jobs that they will later pursue that will not have an international dimension, whether it be ordering components from a Brazilian firm, traveling to a trade show in Malaysia, making a loan for the

transport of Caspian Sea oil, or working in an embassy in Quito or in a medical mission in Burundi.

Thus, the motive for writing this edition is much the same as in earlier editions: to provide a clear and comprehensive text that will help students move beyond simple recognition and interest in international issues and toward a level of understanding of current and future international issues that will be of use to them in analyzing the problem at hand and selecting a policy position. In other words, we seek to help these scholars acquire the necessary human capital for dealing with important questions, for satisfying their intellectual curiosity, and for providing a foundation for future on-the-job decisions.

We have been very flattered by the favorable response to the first four editions of our book. In this fifth edition, we continue to build upon the well-received features to develop a text that is even more attuned to our objectives. We have also, in a number of instances, attempted to simplify our presentation of some of the more difficult concepts and models in order to be more student-friendly.

IMPROVEMENTS

In addition to updating a large number of the boxes and adding new ones, we have expanded coverage of the transition economies in several places. As an indication of other material new to this edition, there is discussion of the most recent developments in U.S. trade policy at the time of writing, of outsourcing, of the 10 new members of the European Union, of currency boards, and of the behavior of the euro. We should note that, in the monetary material, we continue to maintain our reliance on the *IS/LM/BP* framework for analyzing macroeconomic policy because we believe that the framework is effective in facilitating student understanding and because that material was favorably received by users of the earlier editions. We also continue to incorporate key aspects of the asset approach into the *IS/LM/BP* model.

Particular mention should be made of the fact that, throughout the text, we have introduced a special new feature that we hope readers will find attractive. This new feature is that, at the start of almost every chapter, we have incorporated an opening vignette or case study. This opening case introduces, in an applied setting, concepts and relationships that will be developed in the chapter itself. These vignettes are designed to stimulate student interest and inquisitiveness about the forthcoming material. As the chapter unfolds, the opening case will come into clearer focus, and the manner in which economic theory has relevance to the “real world” will become evident.

Perhaps the most significant change with this new edition is that we have added a new co-author. Professor Steven L. Cobb is a former graduate student of both Professors Appleyard and Field, and we are delighted that he has brought his energy and knowledge to this project. Professor Cobb is currently Chair of the Department of Economics at the University of North Texas, and he has also served as the Director of the Center for Economic Education at the University of North Texas since 1992. We especially welcome his expertise in two areas—economic education and the transition economies. He has published extensively on the teaching of economics, and he has conducted numerous education seminars in the United States. In addition, he is a former president of the National Association of Economic Educators. Further, he has written about and conducted programs for economics teachers in countries of Central/Eastern Europe and the former Soviet Union. It is with pleasure that we welcome Steve’s new perspectives, ideas, and viewpoints.

DESCRIPTION OF TEXT

Our book follows the traditional division of international economics into the trade and monetary sides of the subject. Although the primary audience for the book will be students in upper-level economics courses, we think that the material can effectively reach a broad, diversified group of students—including those in political science, international studies, history, and business who may have fewer economics courses in their background. Having taught international economics ourselves in specific nonmajors' sections and Master's of Business Administration sections as well as in the traditional economics department setting, we are confident that the material is accessible to both noneconomics and economics students. This broad audience will be assisted in its learning through the fact that we have included separate, extensive review chapters of microeconomic (Chapter 5) and macroeconomic (Chapter 24) tools.

International Economics presents international trade theory and policy first. Introductory material and data are found in Chapter 1, and Chapters 2 through 4 present the Classical model of trade, including a treatment of pre-Classical Mercantilism. A unique feature is the *devotion of an entire chapter to extensions of the Classical model* to include more than two countries, more than two goods, money wages and prices, exchange rates, and transportation costs. The analysis is brought forward through the modern Dornbusch-Fischer-Samuelson model including a treatment of the impact of productivity improvements in one country on the trading partner. Chapter 5 provides an *extensive review of microeconomic tools* used in international trade and can be thought of as a "short course" in intermediate micro. Chapters 6 through 9 present the workhorse neoclassical and Heckscher-Ohlin trade theory, including an examination of the assumptions of the model. Chapter 6 focuses on the traditional production possibilities–indifference curve exposition. We are unabashed fans of the offer curve because of the nice general equilibrium properties of the device and because of its usefulness in analyzing trade policy and in interpreting economic events, and Chapter 7 extensively develops this concept. Chapter 8 explores Heckscher-Ohlin in a theoretical context, and Chapter 9 is *unique in its focus on testing the factor endowments approach*, including empirical work on the trade-income inequality debate in the context of Heckscher-Ohlin.

Continuing with theory, Chapters 10 through 12 treat extensions of the traditional material. Chapter 10 *discusses various post-Heckscher-Ohlin trade theories* that relax standard assumptions such as international factor immobility, homogeneous products, constant returns to scale, and perfect competition. An important focus here is upon imperfect competition and intra-industry trade. Chapter 11 explores the comparative statics of economic growth and the relative importance of trade, and it includes material on endogenous growth models and on the effects of growth on the offer curve. Chapter 12 examines causes and consequences of international factor movements, including both capital movements and labor flows.

Chapters 13 through 17 are devoted to trade policy. Chapter 13 is *exclusively devoted to presentation of the various instruments of trade policy*. Chapter 14 then explores the welfare effects of the instruments, including discussion of such effects in a "small-country" as well as a "large-country" setting. In this new edition, we have consolidated the previous Chapters 15 ("Traditional Arguments for Protection") and 16 ("Strategic Approaches to Trade Policy Intervention") into one chapter. The strategic approaches are now commonplace in policy discussions, and the old division seemed artificial. The two previous chapters are now one coherent whole. Chapter 16 begins with a discussion of the political economy of trade policy, followed by a review of various trade policy actions involving the United States as well as issues currently confronting the WTO. Chapter 17 is

a separate chapter on *economic integration*. We have updated the discussion of the transition economies, the European Union, and the North American Free Trade Agreement. The trade part of the book concludes with Chapter 18, which provides an overview of how international trade influences growth and change in the developing countries. Further, in this fifth edition, we have moved the discussion of developing countries' external debt problems, formerly in the last chapter of the book, to Chapter 18.

The international monetary material begins with Chapter 19, which introduces balance-of-payments accounting. In contrast to the approach in some texts, *balance-of-payments accounting is discussed prior to the foreign exchange market*, which is considered in Chapter 20. We think this sequence makes more sense than the reverse, since the demand and supply curves of foreign exchange reflect the debit and credit items, respectively, in the balance of payments. A differentiating feature of the presentation of the foreign exchange market is the *extensive development of various exchange rate measures*, for example, nominal, real, and effective exchange rates. Chapter 21 then describes characteristics of "real-world" international financial markets in detail, and discusses a (we hope not too-bewildering) variety of international financial derivative instruments. Chapter 22 presents in considerable detail *the monetary and portfolio balance (or asset market) approaches to the balance of payments and to exchange rate determination*. The difficult discussion of empirical testing of these approaches is in an appendix. The chapter concludes with an examination of the phenomenon of *exchange rate overshooting*. In Chapters 23 and 24, our attention turns to the more traditional price and income adjustment mechanisms. In Chapter 23, we have added to the discussion of the "pass-through" of exchange rate changes that appeared in previous editions. Chapter 24 is in effect a *review of basic Keynesian macroeconomic analysis*.

Chapters 25 through 27 are concerned with macroeconomic policy under different exchange rate regimes. As noted earlier, we continue to utilize the *IS/LM/BP* Mundell-Fleming approach rather than employ exclusively the asset market approach. The value of the *IS/LM/BP* model is that it can embrace both the current and the capital/financial accounts in an understandable and perhaps familiar framework for many undergraduates. This model is presented in Chapter 25 in a manner that does not require previous acquaintance with it but does constitute review material for most students who have previously taken an intermediate macroeconomic theory course. The chapter concludes with an analysis of monetary and fiscal policy in a fixed exchange rate environment. These policies are then examined in a flexible exchange rate environment in Chapter 26, and the analysis is broadened to the *aggregate demand–aggregate supply framework* in Chapter 27. The concluding chapters, Chapters 28 and 29, focus on particular topics of global concern. Chapter 28 considers various issues related to the choice between fixed and flexible exchange rates. In this chapter, we have added new material on currency boards in particular. Chapter 29 then traces the historical development of the international monetary system from Bretton Woods onward and examines proposals for reform such as target zone proposals.

Because of the length and comprehensiveness of the *International Economics* text, it is not wise to attempt to cover all of it in a one-semester course. For such a course, we recommend that material be selected from Chapters 1 to 3, 5 to 8, 10, 13 to 15, 19 and 20, 22 to 26, and 29. If more emphasis on international trade is desired, additional material from Chapters 17 and 18 can be included. For more emphasis on international monetary economics, we suggest the addition of selected material from Chapters 21, 27, and 28. For a two-semester course, the entire *International Economics* book can be covered. Whatever the course, occasional outside reading assignments from academic journals, current popular periodicals, and a readings book can further help to bring the material to

life. The “References for Further Reading” section at the end of the book, which is organized by chapter, can hopefully give some guidance. If library resources are limited, the text contains, both in the main body and in boxes, summaries of some noteworthy contributions.

PEDAGOGICAL DEVICES

	To assist the student in learning the material, we have included a variety of pedagogical devices. We like to think of course that the major device in this edition is again clear exposition. Although all authors stress clarity of exposition as a strong point, we continue to be pleased that many reviewers praised this feature. Beyond this general feature, more specific devices are described herein.
Opening Vignettes	These opening vignettes or cases were discussed earlier. The intent of each case is to motivate the student toward pursuing the material in the forthcoming chapter as well as to enable the student to see how the chapter’s topics fit with actual applied situations in the world economy.
Boxes	There are three types of material that appear in boxes (more than 100 of them) in <i>International Economics</i> . Some are analytical in nature, and they explain further some difficult concepts or relationships. We have also included several biographical boxes. These short sketches of well-known economists add a personal dimension to the work being studied, and they discuss not only the professional interests and concerns of the individuals but also some of their less well-known “human” characteristics. Finally, the majority of the boxes are case studies, appearing throughout chapters and supplemental to the opening case studies/vignettes. These case studies in the chapters serve to illuminate concepts and analyses under discussion, and, as with the opening vignettes, give students an opportunity to see the relevance of the material to current events. The cases also provide a break from the sometimes heavy dose of theory that permeates international economics texts.
Concept Checks	These are short “stopping points” at various intervals within chapters (about two per chapter). The concept checks pose questions that are designed to see if basic points made in the text have been grasped by the student.
End-of-Chapter Questions and Problems	These are standard fare in all texts. The questions and problems are broader and more comprehensive than the questions contained in the concept checks.
Lists of Key Terms	The major terms in each chapter are boldfaced in the chapters themselves and then are brought together at the end of the chapter in list form. A review of each list can serve as a quick review of the chapter.
References for Further Reading	These lists occur at the end of the book, organized by chapter. We have provided bibliographic sources that we have found useful in our own work as well as entries that are relatively accessible and offer further theoretical and empirical exploration opportunities for interested students.
Instructor’s Manual	This companion publication offers instructors assistance in preparing for and teaching the course. We have included suggestions for presenting the material as well as answers to the end-of-chapter questions and problems. In addition, sample examination questions are

provided, including some of the hundreds of multiple-choice questions and problems that we have used for examining our own students.

Web Site

This text is accompanied by helpful study and practice material for students at www.mhhe.com/economics/appleyard5e/stu_resources.html. Instructors can access the *Instructors Manual and Test Bank* at www.mhhe.com/economics/appleyard5e/ir/instr_resources.html.

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Finally, we welcome any suggestions or comments that you may have regarding this text. Please feel free to contact us at our e-mail addresses. And thank you for your attention to our book!

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BRIEF CONTENTS

CHAPTER 1
The World of International Economics, 1

PART I

THE CLASSICAL THEORY OF TRADE 15

CHAPTER 2
Early Trade Theories: Mercantilism and the Transition to the Classical World of David Ricardo, 17

CHAPTER 3
The Classical World of David Ricardo and Comparative Advantage, 27

CHAPTER 4
Extensions and Tests of the Classical Model of Trade, 41

PART II

NEOCLASSICAL TRADE THEORY 61

CHAPTER 5
Introduction to Neoclassical Trade Theory: Tools to Be Employed, 63

CHAPTER 6
Gains from Trade in Neoclassical Theory, 85

CHAPTER 7
Offer Curves and the Terms of Trade, 101

CHAPTER 8
The Basis for Trade: Factor Endowments and the Heckscher-Ohlin Model, 123

CHAPTER 9
Empirical Tests of the Factor Endowments Approach, 149

PART III

ADDITIONAL THEORIES
AND EXTENSIONS 167

CHAPTER 10
Post-Heckscher-Ohlin Theories of Trade and Intra-Industry Trade, 169

CHAPTER 11
Economic Growth and International Trade, 197

CHAPTER 12
International Factor Movements, 219

PART IV

TRADE POLICY 247

CHAPTER 13
The Instruments of Trade Policy, 249

CHAPTER 14
The Impact of Trade Policies, 269

CHAPTER 15
Arguments for Interventionist Trade Policies, 307

CHAPTER 16
Political Economy and U.S. Trade Policy, 345

CHAPTER 17
Economic Integration, 375

CHAPTER 18
International Trade and the Developing Countries, 407

PART V



FUNDAMENTALS OF INTERNATIONAL
MONETARY ECONOMICS 441

CHAPTER 19

The Balance-of-Payments Accounts, 443

CHAPTER 20

The Foreign Exchange Market, 465

CHAPTER 21

**International Financial Markets and Instruments:
An Introduction, 497**

CHAPTER 22

**The Monetary and Portfolio Balance Approaches to
External Balance, 531**

CHAPTER 23

**Price Adjustments and Balance-of-Payments
Disequilibrium, 561**

CHAPTER 24

National Income and the Current Account, 587

PART VI



MACROECONOMIC POLICY IN THE
OPEN ECONOMY 613

CHAPTER 25

**Economic Policy in the Open Economy: Fixed
Exchange Rates, 615**

CHAPTER 26

**Economic Policy in the Open Economy: Flexible
Exchange Rates, 645**

CHAPTER 27

**Prices and Output in the Open Economy:
Aggregate Supply and Demand, 663**

PART VII



ISSUES IN WORLD MONETARY
ARRANGEMENTS 689

CHAPTER 28

Fixed or Flexible Exchange Rates? 691

CHAPTER 29

**The International Monetary System: Past, Present,
and Future, 717****References for Further Reading, 751****Index, 771**

CONTENTS

CHAPTER 1

The World of International Economics, 1

- INTRODUCTION, 1
- THE NATURE OF MERCHANDISE TRADE, 2
 - The Geographical Composition of Trade, 2
 - The Commodity Composition of Trade, 4
 - U.S. International Trade, 5
- WORLD TRADE IN SERVICES, 6
- THE CHANGING DEGREE OF ECONOMIC INTERDEPENDENCE, 9
- SUMMARY, 12
- Appendix: A General Reference List in International Economics, 12

PART I

THE CLASSICAL THEORY OF TRADE 15

CHAPTER 2

Early Trade Theories: Mercantilism and the Transition to the Classical World of David Ricardo, 17

- INTRODUCTION, 17
 - The Oracle in the 21st Century, 17
- MERCANTILISM, 18
 - The Mercantilist Economic System, 18
 - The Role of Government, 19
 - Mercantilism and Domestic Economic Policy, 19
- BOX 1: THE GEPHARDT AMENDMENT—THE NEW MERCANTILISM?* 20
- THE CHALLENGE TO MERCANTILISM BY EARLY CLASSICAL WRITERS, 21
 - David Hume—The Price-Specie-Flow Mechanism, 21
- BOX 2: CAPSULE SUMMARY OF THE PRICE-SPECIE-FLOW MECHANISM*, 22
- BOX 3: CONCEPT REVIEW—PRICE ELASTICITY AND TOTAL EXPENDITURES*, 22
 - Adam Smith and the Invisible Hand, 23
- BOX 4: ADAM SMITH (1723–1790)*, 24
- SUMMARY, 25

CHAPTER 3

The Classical World of David Ricardo and Comparative Advantage, 27

- INTRODUCTION, 27
 - Some Common Myths, 27
- BOX 1: DAVID RICARDO (1772–1823)*, 28
- ASSUMPTIONS OF THE BASIC RICARDIAN MODEL, 28
- RICARDIAN COMPARATIVE ADVANTAGE, 29
- BOX 2: EXPORT CONCENTRATION OF SELECTED COUNTRIES*, 31
- COMPARATIVE ADVANTAGE AND THE TOTAL GAINS FROM TRADE, 32
 - Resource Constraints, 33
 - Complete Specialization, 33
- REPRESENTING THE RICARDIAN MODEL WITH PRODUCTION-POSSIBILITIES FRONTIERS, 34
 - Production Possibilities—An Example, 35
 - Maximum Gains from Trade, 36
- COMPARATIVE ADVANTAGE—SOME CONCLUDING OBSERVATIONS, 37
- SUMMARY, 38

CHAPTER 4

Extensions and Tests of the Classical Model of Trade, 41

- INTRODUCTION, 41
 - Trade Complexities in the Real World, 41
- THE CLASSICAL MODEL IN MONEY TERMS, 42
- WAGE RATE LIMITS AND EXCHANGE RATE LIMITS, 43
- BOX 1: WAGE RATE LIMITS AND EXCHANGE RATE LIMITS IN THE MONETIZED RICARDIAN FRAMEWORK*, 44
- MULTIPLE COMMODITIES, 45
 - The Effect of Wage Rate Changes, 46
 - The Effect of Exchange Rate Changes, 47
- TRANSPORTATION COSTS, 48
- BOX 2: THE SIZE OF TRANSPORTATION COSTS*, 49
- MULTIPLE COUNTRIES, 50
- EVALUATING THE CLASSICAL MODEL, 51
- BOX 3: LABOR PRODUCTIVITY AND IMPORT PENETRATION IN THE U.S. STEEL INDUSTRY*, 53

SUMMARY, 55
 Appendix: The Dornbusch, Fischer, and Samuelson
 Model, 57

PART II

NEOCLASSICAL TRADE THEORY 61

CHAPTER 5

Introduction to Neoclassical Trade Theory: Tools to Be Employed, 63

INTRODUCTION, 63
 THE THEORY OF CONSUMER BEHAVIOR, 63
 Consumer Indifference Curves, 63
BOX 1: FRANCIS YSIDRO EDGEWORTH (1845–1926), 64
 The Budget Constraint, 68
 Consumer Equilibrium, 69
 PRODUCTION THEORY, 70
BOX 2: CONSUMER EXPENDITURE PATTERNS IN THE UNITED STATES, 71
 Isoquants, 71
 Isocost Lines, 73
 Producer Equilibrium, 75
 THE EDGEWORTH BOX DIAGRAM AND THE PRODUCTION-POSSIBILITIES FRONTIER, 75
 The Edgeworth Box Diagram, 75
 The Production-Possibilities Frontier, 78
 SUMMARY, 82

CHAPTER 6

Gains from Trade in Neoclassical Theory, 85

INTRODUCTION, 85
 The Effects of Restrictions on U.S. Trade, 85
 AUTARKY EQUILIBRIUM, 86
 INTRODUCTION OF INTERNATIONAL TRADE, 88
 The Consumption and Production Gains from Trade, 89
 Trade in the Partner Country, 91
 MINIMUM CONDITIONS FOR TRADE, 92
 Trade between Countries with Identical PPFs, 92
 Trade between Countries with Identical Demand Conditions, 94
 Conclusions, 95
 SOME IMPORTANT ASSUMPTIONS IN THE ANALYSIS, 95
 Costless Factor Mobility, 95

Full Employment of Factors of Production, 96
 The Indifference Curve Map Can Show Welfare Changes, 96

BOX 1: INCOME DISTRIBUTION CHANGES WITH INCREASED TRADE IN THE UNITED STATES, 97

SUMMARY, 98

Appendix: “Actual” versus “Potential” Gains from Trade, 99

CHAPTER 7

Offer Curves and the Terms of Trade, 101

INTRODUCTION, 101
 Terms-of-Trade Shocks, 101
 A COUNTRY’S OFFER CURVE, 102
BOX 1: THE TABULAR APPROACH TO DERIVING AN OFFER CURVE, 104
 TRADING EQUILIBRIUM, 105
 SHIFTS OF OFFER CURVES, 107
BOX 2: MEASUREMENT OF THE TERMS OF TRADE, 110
 ELASTICITY AND THE OFFER CURVE, 111
BOX 3: TERMS OF TRADE FOR MAJOR GROUPS OF COUNTRIES, 1972–2002, 112
 OTHER CONCEPTS OF THE TERMS OF TRADE, 116
 Income Terms of Trade, 116
 Single Factoral Terms of Trade, 116
 Double Factoral Terms of Trade, 116
BOX 4: INCOME TERMS OF TRADE OF MAJOR GROUPS OF COUNTRIES, 1972–2002, 117
 SUMMARY, 118
 Appendix A: Derivation of Import-Demand Elasticity on an Offer Curve, 119
 Appendix B: Elasticity and Instability of Offer Curve Equilibria, 120

CHAPTER 8

The Basis for Trade: Factor Endowments and the Heckscher-Ohlin Model, 123

INTRODUCTION, 123
 Do Labor Standards Affect Comparative Advantage? 123
 SUPPLY, DEMAND, AND AUTARKY PRICES, 124
 FACTOR ENDOWMENTS AND THE HECKSCHER-OHLIN THEOREM, 125
 Factor Abundance and Heckscher-Ohlin, 125
BOX 1: RELATIVE FACTOR ENDOWMENTS IN SELECTED COUNTRIES, 1992, 126
 Commodity Factor Intensity and Heckscher-Ohlin, 127
 The Heckscher-Ohlin Theorem, 127