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International Economics

Theory and Policy

TENTH EDITION



Paul R. Krugman • Maurice Obstfeld • Marc J. Melitz

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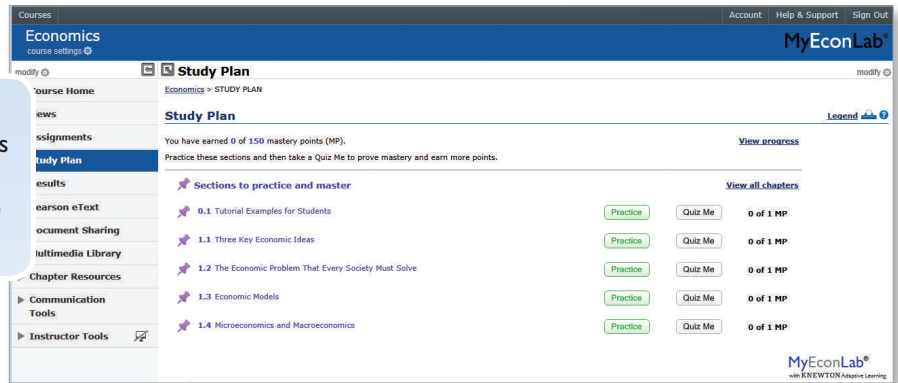
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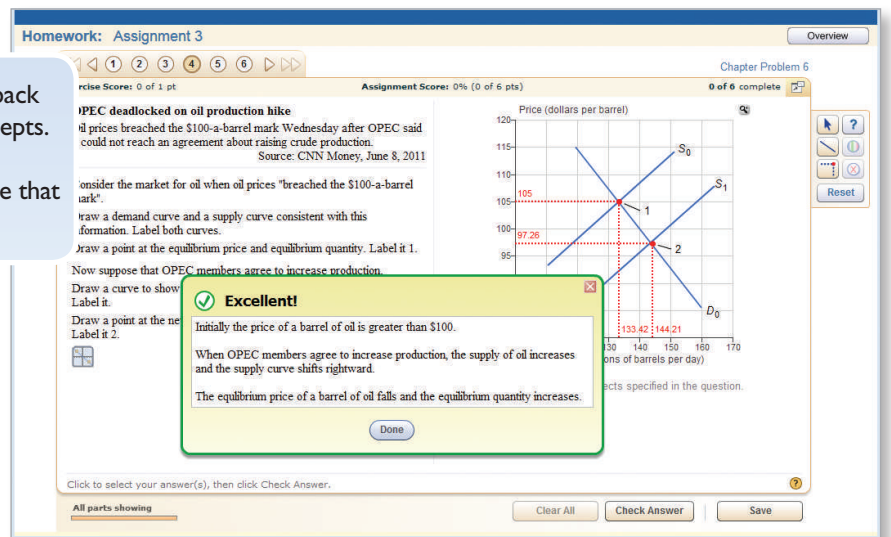
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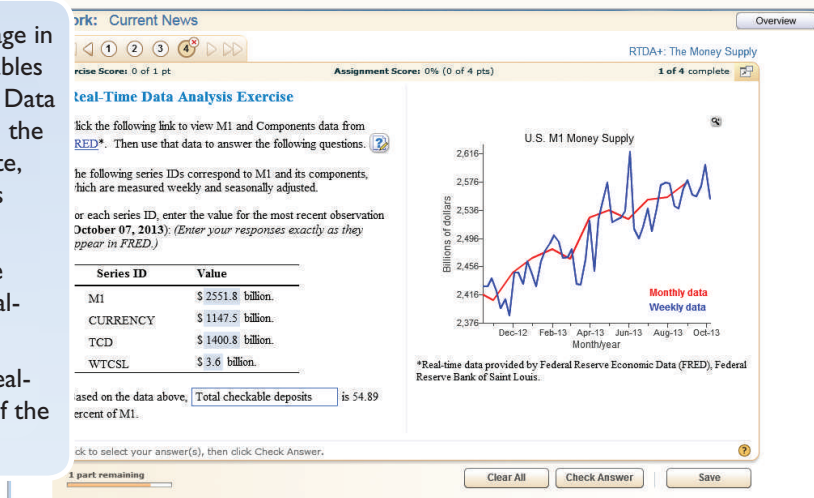
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Real-Time Data Analysis Exercise

Click the following link to view M1 and Components data from FRED*. Then use that data to answer the following questions.

The following series IDs correspond to M1 and its components, which are measured weekly and seasonally adjusted.

For each series ID, enter the value for the most recent observation October 07, 2013. (Enter your responses exactly as they appear in FRED.)

Series ID	Value
M1	\$2551.8 billion.
CURRENCY	\$1147.5 billion.
TCD	\$1400.8 billion.
WTCSL	\$3.6 billion.

Based on the data above, Total checkable deposits is 54.89 percent of M1.

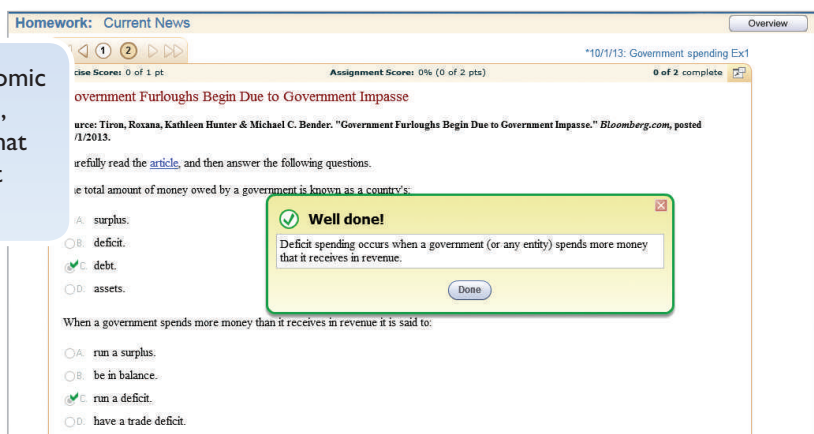
Click to select your answer(s), then click Check Answer.

1 part remaining

Clear All Check Answer Save

Current News Exercises

Posted weekly, we find the latest microeconomic and macroeconomic news stories, post them, and write auto-graded multi-part exercises that illustrate the economic way of thinking about the news.



Homework: Current News

Assignment Score: 0% (0 of 2 pts)

Government Furloughs Begin Due to Government Impasse

Source: Tiron, Roxana, Kathleen Hunter & Michael C. Bender. "Government Furloughs Begin Due to Government Impasse." *Bloomberg.com*, posted 1/2/2013.

Carefully read the article, and then answer the following questions.

The total amount of money owed by a government is known as a country's:

A. surplus.

B. deficit.

C. debt.

D. assets.

When a government spends more money than it receives in revenue it is said to:

A. run a surplus.

B. be in balance.

C. run a deficit.

D. have a trade deficit.

Well done!

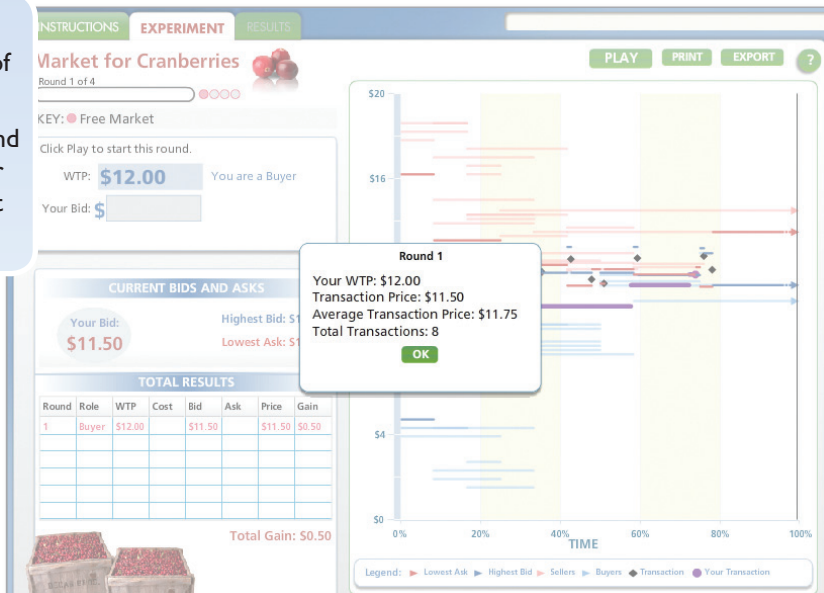
Deficit spending occurs when a government (or any entity) spends more money than it receives in revenue.

Done

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Market for Cranberries

Round 1 of 4

KEY: ● Free Market

Click Play to start this round.

WTP: \$12.00 You are a Buyer

Your Bid: \$

Well done!

Round 1

Your WTP: \$12.00

Transaction Price: \$11.50

Average Transaction Price: \$11.75

Total Transactions: 8

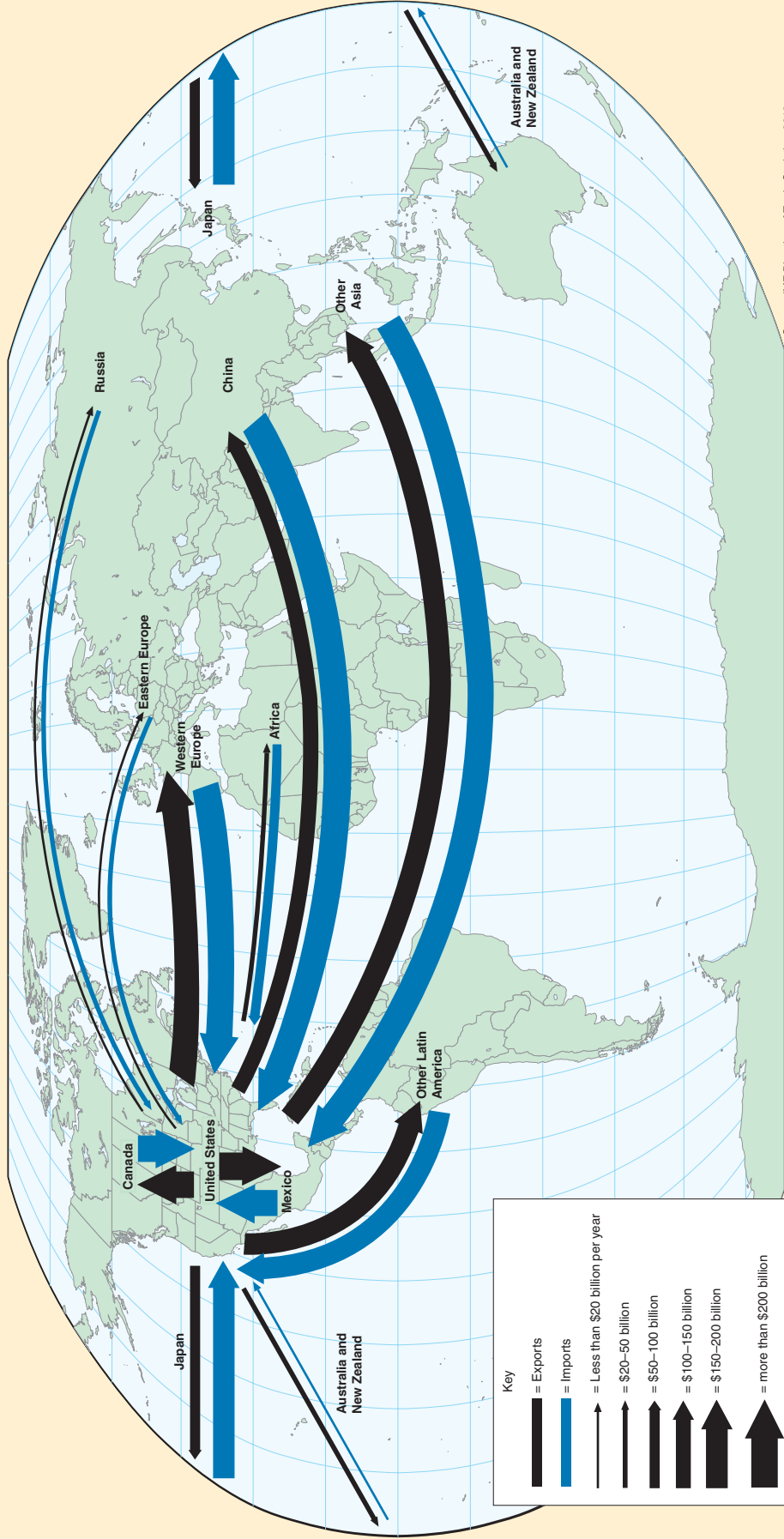
OK

TOTAL RESULTS							
Round	Role	WTP	Cost	Bid	Ask	Price	Gain
1	Buyer	\$12.00		\$11.50	\$11.50	\$11.50	\$0.50

Total Gain: \$0.50

Legend: ▶ Lowest Ask ▶ Highest Bid ▶ Sellers ▶ Buyers ◆ Transaction ● Your Transaction

Merchandise Trade Flows with the United States



Source: IMF Direction of Trade Statistics, 2013.

International Economics

| THEORY AND POLICY |

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Paul R. Krugman

Princeton University

Maurice Obstfeld

University of California, Berkeley

Marc J. Melitz

Harvard University

PEARSON

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For my family—M.O.
For Clair, Benjamin, and Max—M.M.

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Preface

Years after the global financial crisis that broke out in 2007–2008, the industrial world's economies are still growing too slowly to restore full employment. Emerging markets, despite impressive income gains in many cases, remain vulnerable to the ebb and flow of global capital. And finally, an acute economic crisis in the euro area has lasted since 2009, bringing the future of Europe's common currency into question. This tenth 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 Tenth Edition

For this edition, we are offering an Economics volume as well as Trade and Finance splits. The goal with these distinct volumes is to allow professors to use the book that best suits their needs based on the topics they cover in their International Economics course. In the Economics volume for a two-semester course, 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. 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. For professors' and students' convenience, however, they can now opt to use either the Trade or the Finance volume, depending on the length and scope of their course.

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 5, Resources and Trade: The Heckscher-Ohlin Model** This edition offers expanded coverage of the effects on wage inequality of North-South trade, technological change, and outsourcing. The section describing the empirical evidence on the Heckscher-Ohlin model has been rewritten, emphasizing new research. That section also incorporates some new data showing how China's pattern of exports has changed over time in a way that is consistent with the predictions of the Heckscher-Ohlin model.
- **Chapter 6, The Standard Trade Model** This chapter has been updated with some new data documenting how the terms of trade for the U.S. and Chinese economies have evolved over time.
- **Chapter 8, Firms in the Global Economy: Export Decisions, Outsourcing, and Multinational Enterprises** The coverage emphasizing the role of firms in international trade has been revised. There is also a new Case Study analyzing the impact of offshoring in the United States on U.S. unemployment.
- **Chapter 9, The Instruments of Trade Policy** This chapter features an updated treatment of the effects of trade restrictions on United States firms. This chapter now describes the recent trade policy dispute between the European Union and China regarding solar panels and the effects of the "Buy American" restrictions that were written into the American Recovery and Re-Investment Act of 2009.
- **Chapter 12, Controversies in Trade Policy** A new case study discusses the recent garment factory collapse in Bangladesh (in April 2013) and the tension between the costs and benefits of Bangladesh's rapid growth as a clothing exporter.
- **Chapter 17, Output and the Exchange Rate in the Short Run** In response to the global economic crisis of 2007–2009, countries throughout the world adopted countercyclical fiscal responses. Renewed academic research on the size of the fiscal multiplier soon followed, although most of it was set in the closed economy and so ignored the exchange rate effects stressed in this chapter's model. For this edition, we have added a new Case Study on the size of the fiscal multiplier in the open economy.

In line with recent academic literature, which focuses on fiscal policy at the zero lower interest-rate bound, we integrate the discussion with our model of the liquidity trap.

- **Chapter 18, Fixed Exchange Rates and Foreign Exchange Intervention** The chapter now includes additional discussion of “inflow attacks” on exchange rates being held at appreciated levels through foreign exchange intervention and other measures, a phenomenon seen in China and other countries. A new Case Study focuses on the Swiss National Bank’s policy of capping the Swiss franc’s level against the euro.
- **Chapter 19, International Monetary Systems: An Historical Overview** A detailed derivation of an open economy’s multi-period intertemporal budget constraint now complements the discussion of external balance. (Instructors who do not want to cover this relatively more technical material can skip it without loss of continuity.) The intertemporal analysis is applied to analyze the sustainability of New Zealand’s persistent foreign borrowing. In addition, the chapter’s discussion of recent events in the global economy has been updated.
- **Chapter 20, Financial Globalization: Opportunity and Crisis** For this new edition, we have switched the earlier order of Chapters 20 and 21 so that the book now covers the international capital market before covering optimum currency areas and the euro crisis. Our reasoning is that the euro crisis is in large part a crisis of the banks, which students cannot understand without a good prior grasp of international banking and its problems. Consistent with this approach, the new Chapter 20 covers bank balance sheets and bank fragility in detail, with emphasis on bank capital and capital regulation. Ever since this book’s first edition, we have stressed the global context of banking regulation. In this edition, we explain the “financial trilemma,” which forces national policymakers to choose at most two from among the potential objectives of financial openness, financial stability, and national control over financial policy.
- **Chapter 21, Optimum Currency Areas and the Euro** The crisis in the euro area escalated dramatically after the last edition of this book went to press. For this new edition, we have brought our coverage of the euro crisis up to date with new material on initiatives for closer policy coordination in the euro countries, such as banking union. Our theoretical discussion of optimum currency areas also reflects lessons of the euro crisis.
- **Chapter 22, Developing Countries: Growth, Crisis, and Reform** Our coverage of capital flows to developing countries now includes recent research on the small size of those flows, as well as their paradoxical tendency to favor low-growth over high-growth developing economies. We point out the close link between theories of capital allocation to developing countries and theories of the cross-country distribution of income.

In addition to these structural changes, we have updated the book in other ways to maintain current relevance. Thus, we examine the educational profile of foreign born workers in the United States and how it differs from the overall population (Chapter 4); we review recent anti-dumping disputes involving China (Chapter 8); we discuss the causes of the large measured global current account surplus (Chapter 13); we describe the outbreak and resolution of Zimbabwe’s hyperinflation (Chapter 15); and we describe the evolving infrastructure of international bank regulation, including Basel III and the Financial Stability Board (Chapter 20).

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.

Some Distinctive Features

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 topics that previous authors failed to treat in a systematic way.

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.

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 (Chapter 14). 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 (Chapters 15 through 18).

International Macroeconomic Policy Coordination

Our discussion of international monetary experience (Chapters 19 through 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 20 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 (Chapter 3); the astonishing ability of disputes over banana trade to generate acrimony among countries far too cold to grow any of their own bananas (Chapter 10); markets for nondeliverable forward exchange (Chapter 14); and the rapid accumulation of foreign exchange reserves by developing countries (Chapter 22).

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.

MyEconLab

MyEconLab

MyEconLab is the premier online assessment and tutorial system, pairing rich online content with innovative learning tools. MyEconLab includes comprehensive homework, quiz, test, and tutorial options, allowing instructors to manage all assessment needs in one program. Key innovations in the MyEconLab course for the tenth edition of *International Economics: Theory & Policy* include the following:



- *Real-Time Data Analysis Exercises*, marked with , allow students and instructors to use the latest data from FRED, the online macroeconomic data bank from the Federal Reserve Bank of St. Louis. By completing the exercises, students become familiar with a key data source, learn how to locate data, and develop skills to interpret data.
- In the *enhanced eText* available in MyEconLab, figures labeled MyEconLab Real-Time Data allow students to display a pop-up graph updated with real-time data from FRED.
- *Current News Exercises*, new to this edition of the MyEconLab course, provide a turn-key way to assign gradable news-based exercises in MyEconLab. Every week, Pearson scours the news, finds a current article appropriate for an economics course, creates an exercise around the news article, and then automatically adds it to MyEconLab. Assigning and grading current news-based exercises that deal with the latest economic events has never been more convenient.

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 updated on current events and make it easy for instructors to incorporate relevant news in lectures and homework.

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 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, including some 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 Tables, 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.
- The Companion Web Site at www.pearsonglobaleditions.com/Krugman contains additional appendices. (See page 21 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.pearsonglobaleditions.com/Krugman.

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