

Second Edition
**PRINCIPLES OF
MICROECONOMICS**

Karl E. Case / Ray C. Fair



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**PRINCIPLES OF
MICROECONOMICS**

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WELLESLEY COLLEGE

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YALE UNIVERSITY



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P R E F A C E

This textbook contains the five introductory chapters, fifteen microeconomic chapters, and selected international chapters from our hardbound *Principles of Economics* textbook. It has been specially prepared for microeconomics courses in which professors prefer to assign a paperback “split” rather than a single volume containing coverage of both microeconomics and macroeconomics.

So that users of this book and its companion volume, *Principles of Macroeconomics*, can fully understand our methodology in revising the first edition, what follows is an adaptation of the preface as it appears in our single hardbound volume.

Revising a principles of microeconomics textbook in a constantly changing world is a major task. The events of the past three years have transformed the domestic and international economic landscape. At home, the United States slipped into a recession for the first time in nearly a decade. Abroad, East and West Germany were reunited and the once-socialist Eastern European nations have moved toward market economies. As we go to press, the economic and political situations in the Soviet Union are highly volatile and unpredictable.

The first objective of this revision, then, was to bring our material into the 1990s. This meant revising nearly half of the examples and applications in the book. Because we can no longer think of the U.S. economy as a closed system, it also meant increasing our coverage of international material significantly.

The second objective of this revision was to improve the book pedagogically. To date, the first edition of *Principles of Microeconomics* has been used by thousands of students at hundreds of colleges and universities. As with any first edition, there were sections that received resounding applause and sections that needed improvement. We received countless comments and letters from both students and teachers, and to a large extent these

comments and suggestions guided our work in this revision. In addition, we worked carefully with Prentice Hall’s research and development departments to determine exactly what today’s professors want in a principles of microeconomics textbook. The result is, we hope, a principles book that will set the standard for the 1990s.

THE PLAN OF PRINCIPLES OF MICROECONOMICS

■ Despite extensive revisions and some major new features, the basic themes of the second edition are the same basic themes of the first edition. The purpose of this book is to introduce the discipline of economics and to provide a basic understanding of how economies function. This requires a blend of economic theory, institutional material, and real-world applications. We have tried to maintain a reasonable balance between these ingredients in every chapter in this book. Like the first edition, the second edition also attempts to present a number of theoretical views in an evenhanded way.

Organization

Market research and comments from users of the first edition convinced us that the basic organization of the material in the first edition of *Principles of Microeconomics* was pedagogically sound. For this reason, we have not altered the presentation drastically.

The organization of the microeconomic material continues to reflect our belief that the best way to understand how market economies operate—and the best way to understand basic economic theory—is to work through the perfectly competitive model first, including discussions of output *and* input markets and the connections between them, before turning to non-competitive market structures. When students under-

stand how a simple competitive system works, they can start thinking about how the pieces of the economy “fit together.” We think this is a better approach to teaching economics than some of the more traditional approaches, which encourage students to think of economics as a series of disconnected alternative market models.

Doing competition first also allows students to see the power of the market system. It is impossible to discuss the things that markets do well until students have seen how a simple system determines the allocation of resources. This is our purpose in Chapters 6–11. Chapter 12 remains a pivotal chapter that links the world of perfect competition with the imperfect world of noncompetitive markets, externalities, and poverty, all of which we discuss in Chapters 13–17. In Chapters 18–20 students use everything they’ve learned in Chapters 6–17 to take a closer look at some of the fields of applied microeconomics (namely the economics of taxation, labor economics, and urban and regional economics). Finally, in Chapters 21–23, we examine some topics in international economics. Although we’ve chosen to place these chapters at the end of the book, professors can integrate them into their course at any time they feel is appropriate.

THE PLAN OF *PRINCIPLES OF MACROECONOMICS*

■ For professors who are teaching macroeconomics, a new version of *Principles of Macroeconomics* is also available. Although we have made a number of substantive changes to both the content and the organization of the macroeconomic material in the second edition of *Principles of Macroeconomics*, we remain committed to the view that it is a mistake to simply throw aggregate demand and supply curves at students in the first few chapters of a principles book. Aggregate demand and supply curves are very complex theoretical constructs—indeed, we encountered debates regarding the aggregate supply curve everywhere we turned! To begin to understand the *AS* and *AD* curves, one needs to know about the functioning of the goods market, the money market, and the labor market. The logic behind the simple demand curve is simply wrong (and very misleading) when applied to the relationship between aggregate demand and the price level. Similarly, the logic behind the simple supply curve is wrong when applied to the relationship between aggregate supply and the price level.

Part of teaching economics is teaching economic reasoning. Our discipline is built around deductive logic. Once we teach students a pattern of logic, we want and expect them to apply it to new circumstances. When they apply the logic of a simple demand curve or simple supply curve to the aggregate demand or aggregate supply curve, the logic simply does not fit. We believe the best way to teach the reasoning embodied in the aggregate demand and aggregate supply curves without creating serious confusion is to build up to them carefully.

Organization

As in the first edition of *Principles of Macroeconomics*, the macroeconomic section begins with three introductory chapters (6–8) that introduce students to macroeconomic tools, national income accounting, and inflation and unemployment. These chapters are followed by two chapters that present the basic functioning of the goods market (Chapters 9 and 10) and two chapters that present the basic functioning of the money market (Chapters 11 and 12). It is in these chapters that students are introduced to the basic concepts of fiscal and monetary policy. These four chapters are followed by a chapter that brings the two markets together. This chapter, Chapter 13, does in essence a very simplified version of *IS/LM* analysis verbally. (The *IS* and *LM* curves have been added in an appendix to Chapter 13 for those instructors who are interested in teaching them.)

It is at this point that the organization has been changed from the first edition. Given that the groundwork has been laid in Chapter 13, Chapter 14 proceeds directly to derive the aggregate demand curve and then the aggregate supply curve. The two curves are then put together to determine the aggregate price level and to discuss the various theories of inflation. In the first edition, this material was postponed until students had gone through the microeconomic foundations of household and firm behavior in the macroeconomy. We remain convinced that one cannot fully understand the macroeconomy without some understanding of household and firm behavior at the micro level, but we have greatly simplified this material and moved it to an optional part of the book that follows the core of macro analysis. Professors can choose to teach or not to teach this optional material, given their interests and time constraints.

Following the development of the *AD* and *AS* curves in Chapter 14, we turn to a more detailed look at the labor market in Chapter 15 and discuss various theories

of unemployment. By the end of Chapter 15, students have put the goods market, the money market, and the labor market together, and they have analyzed inflation, unemployment, and monetary and fiscal policy. Chapter 16 uses the material learned earlier to analyze a number of current macroeconomic issues, including the budget deficit and the Fed's responses to the state of the economy.

In Chapter 17, we take a closer look at the behavior of households and firms in the macroeconomy, and in Chapter 18 we use the material in Chapter 17 to analyze further macroeconomic issues. Chapters 17 and 18 have been grouped into an optional part that can be skipped without losing the flow of the material. We close the macro section of the book by looking at some current debates in macroeconomics (Chapter 19) and economic growth (Chapter 20). We then consider international economics in more detail in Chapters 21–24.

Content

We have made two substantive changes to our presentation of the macroeconomic material in this edition. The first of these is a new treatment of aggregate supply. Clearly, there is strong disagreement among economists and across economics textbooks on the exact nature of the aggregate supply curve. All economists agree that if input prices rise at the same rate as output prices, the aggregate supply curve is vertical; firms have no incentive to change output if their costs and revenues change at the same rate. For the *AS* curve to have a positive slope in the short run, input prices must either be constant or there must be some lag in their adjustment.

Some textbooks assume that input prices are constant when the overall price level changes, essentially treating the aggregate supply curve as if it were the sum of individual market supply curves. This was the description we offered in the first edition. This assumption of constant input prices is obviously unrealistic, and in the second edition we have changed our description of the short-run *AS* curve to one that assumes some lag in input price adjustment when the overall price level changes. In addition, our description of the long-run aggregate supply curve has been clarified and expanded, incorporating the concept of potential GNP.

The second substantive change in our presentation of the macro material is the distinction we now make between inflation (a change in the overall price level) and *sustained* inflation (an increase in the overall price level that continues for some period of time). There can be confusion in students' minds as to what inflation is and

whether or not it is a purely monetary phenomenon, and we think that this distinction helps to clarify our discussions.

We do microeconomics first in the combined volume, but have crafted the second edition so that professors can proceed directly to either microeconomics or macroeconomics after teaching the five introductory chapters.

HIGHLIGHTS OF THE SECOND EDITION OF *PRINCIPLES OF MICROECONOMICS*

■ Recent Data, Examples, Events, and Topics

Every chart, table, and graph in the book has been revised with the most recent data available. In addition, we have integrated topics that have generated a great deal of attention over the last few years—the economics of information, environmental economics, the S&L crisis, the recession of 1990–1991, the Persian Gulf War, the collapse of communism, and the national debt, to name just a few.

Increased Coverage of International Material

We have increased our coverage of international material in several ways. First, Chapter 3, previously entitled “The Public and Private Sectors,” has been expanded to include the international sector. This chapter contains material on the composition of imports and exports, trends in international trade, and the like. Second, we have added numerous “International Perspective” boxes throughout the text. These boxes are designed to illustrate economic logic with international examples and to emphasize today's international economy. Finally, we have attempted to integrate international examples directly into the text whenever appropriate. All international examples are marked by a globe icon in the book's table of contents.

New Five-Part Organization

We strongly believe that students need to know where they are going and where they have been if they are to understand a body of analytical material. Our first edition was divided into three main sections: Introduc-

tion, Micro, and International. The second edition maintains this three-part structure but further breaks down the book into five clearly highlighted parts, each with a specific purpose.

Optional Chapters

We have tried to keep uppermost in our minds that time is always tight in a principles course. For this reason, we have made sure that certain chapters can be skipped without losing the flow of the material. Chapter 11 (on the capital market) can be skipped because Chapter 10 (on input markets in general) covers the basics of the capital market. Similarly, the “topics” chapters in Part Four can be skipped if time is short.

Improved Pedagogy

Each chapter begins with a brief overview of what the student has learned in the previous chapter and ends with a brief “look ahead” to the following chapter. To help students study, key terms have been printed in boldface and glossed to the margins. Each chapter ends with a point-by-point summary of the chapter, a list of review terms and concepts (cross-referenced to text page), and review questions and exercises. The review questions and exercises vary in style and format: Some are simple memorization questions; others ask students to apply economic theory to their own experiences; others ask for more sophisticated economic, algebraic, or graphic analysis.

Because many believe that economics must be relevant to be interesting, we have added three kinds of boxes to the second edition. *Close-up* boxes provide some additional detail on current economic topics. *International Perspective* boxes provide economic examples from around the world. *Application* boxes apply the theory learned in the text to real-world events and situations.

In addition, we have set the major principles of economics off from the text in such a way as to highlight their importance. These highlights flow logically from the preceding text and into the text that follows. Students can use these as a way of reviewing the key points in each chapter to prepare for exams.

Case Studies

An important new feature of the second edition is the case study that ends each part. These case studies attempt to bring some of the logic learned in the part to bear on

some real economic question or policy issue. The cases are not simply additional problems, and they are not simple extensions of the text material. They are meant to be applications of some of the *ideas* that the part was designed to teach, and are designed to foster critical thinking and “thinking like an economist.” They might be used as assignments or for class discussion.

THE TEACHING/LEARNING PACKAGE

■ Each component of the teaching and learning package has been carefully crafted to ensure that the principles of microeconomics course is a rewarding experience for both instructors and students. All of the supplements have been substantially revised for the second edition. In addition, several innovative new supplements are available.

Study Guide

A comprehensive study guide has been prepared by Professor Thomas Beveridge of North Carolina State University. This study aid reinforces the textbook and provides students with additional applications and exercises. Each chapter in the study guide corresponds to a chapter in this textbook and contains the following features:

- *Learning Objectives.* A list of learning goals for the chapter.
- *Chapter Summary.* A summary of the most important ideas and issues in the chapter, intended as a review for students who have already read the chapter.
- *Chapter Outline.* A detailed table of contents for the chapter.
- *Point-by-Point Review.* A review of the critical theoretical points made in the chapter.
- *Vocabulary.* A listing of the key terms in the chapter, with space for students’ notes.
- *Tips and Learning Suggestions.* Suggestions to help students make more of their study time. This section also points out common errors or potential sources of confusion that arise as students attempt to learn economic principles.
- *Exercises and Problems.* The tools of graphic analysis are extremely important in the study of economics. This portion of the study guides often requires the use of

graphic analysis to solve economic problems. It also presents real-world situations and asks students to apply economic theory to their own experiences.

■ *Fill-in Practice Questions.* A series of fill-in questions designed to test students' grasp of the material.

■ *Discussion Questions.* Analytical questions that ask students to think more deeply about economic theory and issues.

■ *Answer Key.* Answers to all questions in the study guide, except the discussion questions.

Annotated Instructor's Edition

The annotated instructor's edition, by Professor Dereka Rushbrook of the University of Texas, Austin, and Professor Michael Donihue of Colby College, is a special printing of our *Principles of Economics* textbook created for instructors. Marginal annotations to the text are printed in blue and divided into six categories: Teaching Tips, Real-World Examples, Class Discussion, Suggested Outside Readings, Typical Student Misconceptions, and Points to Stress.

Lecture Planner

The lecture planner is a separate instructor's manual with 39 chapters corresponding to the chapters in the *Principles of Economics* text. Each chapter in the lecture planner includes a Chapter Outline, Learning Objectives, Lecture Suggestions (many of which are taken from current economic literature), Discussion Questions, and Answers to the Review Questions and Exercises in the textbook.

ATLAS Test Item File

A comprehensive test bank of approximately 3,500 questions (written by Professor Teresa Riley of Youngstown State University, Professor Phil Schuchman of the DeVry Institute of Technology, and Professor Paul Koch of Illinois State University, Normal) is provided in the *Principles of Economics Test Item File*. The questions are divided into six categories (multiple choice, fill-in, true/false, matching, short answer, and essay questions) and three levels of difficulty (easy, moderate, and challenging). For ease of reference, each of the questions is keyed to the textbook. Approximately 100 questions are available for each chapter.

Prentice Hall Test Manager

The test item file is designed for use with the Prentice Hall Test Manager, a computerized package that allows instructors to custom-design, save, and generate classroom tests. Available in both 3.5" and 5.25" IBM versions, the test manager also permits professors to edit and add or delete questions from the test item file.

For those with limited access to computers or secretarial support, Prentice Hall's *Telephone Testing Service* allows professors to order customized tests by calling a toll-free telephone number a few days before the test is to be administered. Additional information about the various forms of testing service can be obtained through your Prentice Hall sales representative.

Color Transparencies

There are more than 400 charts, graphs, and tables in our *Principles of Economics*. Approximately 150 of these have been carefully selected and reproduced as 8½" × 11" color acetate transparencies for classroom use.

ABC/Prentice Hall Video Library for *Principles of Economics*

ABC News and Prentice Hall have combined their experience in academic publishing and global reporting to provide a comprehensive video ancillary to the second edition. The library contains more than 75 news clips from the ABC News programs *Nightline*, *Business World*, *On Business*, *This Week with David Brinkley*, *World News Tonight*, and *The Health Show*. Each of the clips has been carefully chosen to illustrate or supplement a specific discussion in the text. The ABC News icon appears in the margins of the Annotated Instructor's Edition to indicate that a video is available to supplement the textbook discussion.

ABC News/Prentice Hall Video Guide

A guide for professors providing suggestions for integrating the ABC/PH Video Library for *Principles of Economics* into the classroom. The Guide contains suggestions for in-class exercises and teaching notes for the videos.

***The New York Times* “Contemporary View” Program**

The New York Times and Prentice Hall have joined forces to offer a program designed to enhance student access to current and relevant economic issues. Students will receive a “student version” of *The New York Times* containing articles that appeared in current editions of the *Times* that relate to the concepts and topics presented in the textbooks.

ACKNOWLEDGMENTS

■ Many people helped bring the second edition to a successful conclusion. First, and foremost, is Steven Rigolosi, our development editor at Prentice Hall. Steve worked tirelessly for the better part of a year and helped with virtually all aspects of the book from pedagogy, to language, to arguing substantive points with us. He learned a lot of economics along the way, and we have benefited enormously.

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Professor Case's research has been in the areas of public finance, taxation, and housing. He is the author of four other books, including *Economics and Tax Policy* and *Property Taxation: The Need for Reform*, as well as numerous articles in professional journals.

For the past 12 years, he has taught at Wellesley, where he was Department Chair from 1982–1985. Before that, he spent two years as Head Tutor (director of undergraduate studies) at Harvard, where he won the Allyn Young Teaching Prize. He has been a member of the AEA's Committee on Economic Education and was Associate Editor of the *Journal of Economics Education*, responsible for the section on innovations in teaching.

Ray C. Fair is Professor of Economics at Yale University. He is a member of the Cowles Foundation at Yale, a Research Associate of the National Bureau of Economic Research, and a Fellow of the Econometric Society. He received a B.A. in economics from Fresno State College in 1964 and a Ph.D. in economics from M.I.T. in 1968. He taught at Princeton University from 1968 to 1974 and has been at Yale since 1974.

Professor Fair's research has primarily been in the areas of macroeconomics and econometrics, with particular emphasis on macroeconometric model building. He is the author of five other books, including *Specification, Estimation, and Analysis of Macroeconometric Models* (Harvard Press, 1984), and numerous journal articles.

Professor Fair has taught introductory and intermediate economics at Yale. He has also taught graduate courses in macroeconomic theory and macroeconometrics.

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