

# 曼 昆

[美] N. Gregory Mankiw 著



PRINCIPLES OF

# ECONOMICS

FOURTH EDITION

## 经济学原理

第4版  
(英文版)

## 微观部分



美国600所大学的标准教科书  
最令人鼓舞的经济学教科书  
最令学生亲近的经济学教科书



清华大学出版社

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### 微观部分



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北 京

N. Gregory Mankiw

Principles of Economics, Fourth edition

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ISBN: 1424067367

Cengage Learning Asia Pte. Ltd.

5 Shenton Way, # 01-01 UIC Building, Singapore 068808

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#### 图书在版编目 (CIP) 数据

经济学原理 = Principles of Economics : 第4版. 微观部分 : 英文 / (美) 曼昆 (Mankiw, N. G.) 著. — 北京 : 清华大学出版社, 2012

ISBN 978 - 7 - 302 - 29322 - 4

I. ①经… II. ①曼… III. ①微观经济学 - 英文 IV. ①F0

中国版本图书馆 CIP 数据核字 (2012) 第 147408 号

责任编辑：高晓蔚

责任校对：宋玉莲

责任印制：何 芊

出版发行：清华大学出版社

网 址：http://www.tup.com.cn, http://www.wqbook.com

地 址：北京清华大学学研大厦 A 座 邮 编：100084

社 总 机：010-62770175 邮 购：010-62786544

投稿与读者服务：010-62776969, c-service@tup.tsinghua.edu.cn

质 量 反 馈：010-62772015, zhiliang@tup.tsinghua.edu.cn

印 刷 者：北京密云胶印厂

装 订 者：三河市新茂装订有限公司

经 销：全国新华书店

开 本：203mm×252mm

印 张：29.5

插 页：2

版 次：2012 年 7 月第 1 版

印 次：2013 年 1 月第 2 次印刷

印 数：5001~8000

定 价：46.00 元

# 出 版 说 明

为了适应经济全球化的发展趋势,满足国内广大读者了解、学习和借鉴国外先进的管理经验和掌握经济理论的前沿动态,清华大学出版社与国外著名出版公司合作影印出版一系列英文版经济管理方面的图书。我们所选择的图书,基本上是已再版多次、在国外深受欢迎、并被广泛采用的优秀教材,是该领域中较具权威性的经典之作。

曼昆教授的这本《经济学原理》,自1997年首次出版以来,已经被全世界100多万学生使用,深受学生和教师的喜爱,被翻译成20多种语言。很多学生因学习这本书而深深地爱上了经济学。这本书的中文翻译版也已经在我国出版。

感谢圣智学习出版公司对清华大学出版社独家授予本书的影印版版权,使我们能够将这本深受读者喜爱的经济学教科书原汁原味地奉献给更多的中国读者,使读者能够既轻松地学习经济学,又感受到曼昆教授的语言魅力。应原书出版方要求,并适应我国的教学实际情况,我们删减了少数章节,并分为“微观部分”和“宏观部分”两册出版,从而使篇幅和定价更适合广大学生。为方便阅读,我们保留了原书页码,并另按顺序重新编排了页码,望读者注意。

在本书的审阅过程中,我们得到了清华大学经济管理学院钟笑寒老师的热心帮助和支持,在此表示感谢!

由于原作者所处国家的政治、经济和文化背景等与我国不同,对书中所持观点,敬请广大读者在阅读过程中注意加以分析和鉴别。

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清华大学出版社

2012年6月

*To Catherine, Nicholas, and Peter,  
my other contributions to the next generation*



## ABOUT THE AUTHOR

N. Gregory Mankiw is professor of economics at Harvard University. As a student, he studied economics at Princeton University and MIT. As a teacher, he has taught macroeconomics, microeconomics, statistics, and principles of economics. He even spent one summer long ago as a sailing instructor on Long Beach Island.



Professor Mankiw is a prolific writer and a regular participant in academic and policy debates. His work has been published in scholarly journals, such as the *American Economic Review*, *Journal of Political Economy*, and *Quarterly Journal of Economics*, and in more popular forums, such as *The New York Times*, *The Financial Times*, *The Wall Street Journal*, and *Fortune*. He is also author of the best-selling intermediate-level textbook *Macroeconomics* (Worth Publishers). In addition to his teaching, research, and writing, Professor Mankiw has been a research associate of the National Bureau of Economic Research, an adviser to the Federal Reserve Bank of Boston and the Congressional Budget Office, and a member of the ETS test development committee for the advanced placement exam in economics. From 2003 to 2005, he served as chairman of the President's Council of Economic Advisers.

Professor Mankiw lives in Wellesley, Massachusetts, with his wife, Deborah, three children, Catherine, Nicholas, and Peter, and their border terrier, Tobin.



## P R E F A C E : T O T H E I N S T R U C T O R

During my 20-year career as a student, the course that excited me most was the two-semester sequence on the principles of economics that I took during my freshman year in college. It is no exaggeration to say that it changed my life.

I had grown up in a family that often discussed politics over the dinner table. The pros and cons of various solutions to society's problems generated fervent debate. But in school, I had been drawn to the sciences. Whereas politics seemed vague, rambling, and subjective, science was analytic, systematic, and objective. While political debate continued without end, science made progress.

My freshman course on the principles of economics opened my eyes to a new way of thinking. Economics combines the virtues of politics and science. It is, truly, a social science. Its subject matter is society—how people choose to lead their lives and how they interact with one another. But it approaches the subject with the dispassion of a science. By bringing the methods of science to the questions of politics, economics tries to make progress on the challenges that all societies face.

I was drawn to write this book in the hope that I could convey some of the excitement about economics that I felt as a student in my first economics course. Economics is a subject in which a little knowledge goes a long way. (The same cannot be said, for instance, of the study of physics or the Japanese language.) Economists have a unique way of viewing the world, much of which can be taught in one or two semesters. My goal in this book is to transmit this way of thinking to the widest possible audience and to convince readers that it illuminates much about the world around them.

I believe that everyone should study the fundamental ideas that economics has to offer. One purpose of general education is to inform people about the world and thereby make them better citizens. The study of economics, as much as any discipline, serves this goal. Writing an economics textbook is, therefore, a great honor and a great responsibility. It is one way that economists can help promote better government and a more prosperous future. As the great economist Paul Samuelson put it, "I don't care who writes a nation's laws, or crafts its advanced treaties, if I can write its economics textbooks."

### What's New in the Fourth Edition?

More of this book is devoted to applications—and less to formal economic theory—than is the case with many other books written for the principles course. Most chapters include case studies illustrating how the principles of economics are applied. In addition, "In The News" boxes offer excerpts from newspaper articles showing how economic ideas shed light on current issues facing society. After students finish their first course in economics, they should think about news stories from a new perspective and with greater insight.

Although the principles of economics are timeless, the application of those principles changes over time as events unfold and as policymakers consider new initiatives. To keep the study of economics fresh and relevant for each new

cohort of students, teachers of economics must constantly update their courses. This new edition contributes to that effort by including dozens of new case studies and boxes.

The new features in this edition are too numerous to list in their entirety, but here is a sample:

- A new box summarizes recent research by Nobel Prize winner Ed Prescott on how taxes influence work effort in Europe.
- A new box discusses the winners and losers from the increased textile trade with China.
- A new box considers the economics of offshore outsourcing.
- A new case study describes the fiscal challenge ahead that arises from an aging population.
- A new box describes how London has reduced congestion with road pricing.
- A new box discusses how rapid growth in Asia is making the global distribution of income more equal.
- A new box summarizes recent research into the causes of child labor in poor nations.
- A new case study examines the moral hazard problem as applied to corporate managers.
- A new box discusses what behavioral economics says about the determinants of saving.
- A new box considers how economic statistics can miss the underground economy.
- A new box uses three striking photos to illustrate the differences in living standards in Great Britain, Mexico, and Mali.
- A new box includes an article by the presidents of Mali and Burkina Faso on how freer world trade would benefit their nations' poor farmers.
- A new box examines some of the peculiar features of U.S. health insurance.
- A new box discusses the problem of high unemployment in Germany.
- A new case study considers whether the U.S. economy could ever experience a bout of capital flight.
- Two new boxes analyze the economics of Hurricane Katrina—one focusing on the short-run macroeconomic impact and the second on the reconstruction effort.
- And finally, a new case study in Chapter 2 discusses my own recent experience as an economic adviser to President Bush.

Only the complete 36-chapter version of this book includes all of these new applications. See below for outlines of each of the five available versions.

In addition to updating the book, I have refined its coverage and pedagogy with input from many users of the previous edition. There are many changes, both large and small, aimed at making the book clearer and more student-friendly.

All the changes that I made, and the many others that I considered, were evaluated in light of the benefits of brevity. Like most things that we study in economics, a student's time is a scarce resource. I always keep in mind a dictum from the great novelist Robertson Davies: "One of the most important things about writing is to boil it down and not bore the hell out of everybody."



## How Is This Book Organized?

To write a brief and student-friendly book, I had to consider new ways to organize familiar material. What follows is a whirlwind tour of this text. The tour will, I hope, give instructors some sense of how the pieces fit together.

### Introductory Material

Chapter 1, “Ten Principles of Economics,” introduces students to the economist’s view of the world. It previews some of the big ideas that recur throughout economics, such as opportunity cost, marginal decision making, the role of incentives, the gains from trade, and the efficiency of market allocations. Throughout the book, I refer regularly to the *Ten Principles of Economics* introduced in Chapter 1 to remind students that these ideas are the foundation for all economics. An icon in the margin calls attention to these references.



Chapter 2, “Thinking Like an Economist,” examines how economists approach their field of study. It discusses the role of assumptions in developing a theory and introduces the concept of an economic model. It also discusses the role of economists in making policy. The appendix to this chapter offers a brief refresher course on how graphs are used and how they can be abused.

Chapter 3, “Interdependence and the Gains from Trade,” presents the theory of comparative advantage. This theory explains why individuals trade with their neighbors, as well as why nations trade with other nations. Much of economics is about how market forces coordinate many individual production and consumption decisions. As a starting point for this analysis, students see in this chapter why specialization, interdependence, and trade can benefit everyone.

### The Fundamental Tools of Supply and Demand

The next three chapters introduce the basic tools of supply and demand. Chapter 4, “The Market Forces of Supply and Demand,” develops the supply curve, the demand curve, and the notion of market equilibrium. Chapter 5, “Elasticity and Its Application,” introduces the concept of elasticity and uses it to analyze events in three different markets. Chapter 6, “Supply, Demand, and Government Policies,” uses these tools to examine price controls, such as rent-control and minimum-wage laws, and tax incidence.

Chapter 7, “Consumers, Producers, and the Efficiency of Markets,” extends the analysis of supply and demand using the concepts of consumer surplus and producer surplus. It begins by developing the link between consumers’ willingness to pay and the demand curve, and the link between producers’ costs of production and the supply curve. It then shows that the market equilibrium maximizes the sum of the producer and consumer surplus. Thus, students learn early about the efficiency of market allocations.

The next two chapters apply the concepts of producer and consumer surplus to questions of policy. Chapter 8, “Application: The Costs of Taxation,” shows why taxation results in deadweight losses and what determines the size of those losses. Chapter 9, “Application: International Trade,” considers who wins and who loses from international trade and presents the debate over protectionist trade policies.

### More Microeconomics

Having examined why market allocations are often desirable, the book then considers how the government can sometimes improve on them. Chapter 10, “Externalities,” explains how external effects such as pollution can render market

outcomes inefficient and discusses the possible public and private solutions to those inefficiencies. Chapter 11, "Public Goods and Common Resources," considers the problems that arise when goods, such as national defense, have no market price. Chapter 12, "The Design of the Tax System," describes how the government raises the revenue necessary to pay for public goods. It presents some institutional background about the U.S. tax system and then discusses how the goals of efficiency and equity come into play when designing a tax system.

The next five chapters examine firm behavior and industrial organization. Chapter 13, "The Costs of Production," discusses what to include in a firm's costs, and it introduces cost curves. Chapter 14, "Firms in Competitive Markets," analyzes the behavior of price-taking firms and derives the market supply curve. Chapter 15, "Monopoly," discusses the behavior of a firm that is the sole seller in its market. It discusses the inefficiency of monopoly pricing, the possible policy responses, and the attempts by monopolies to price discriminate. Chapter 16, "Oligopoly," covers markets in which there are only a few sellers, using the prisoners' dilemma as the model for examining strategic interaction. Chapter 17, "Monopolistic Competition," looks at behavior in a market in which many sellers offer similar but differentiated products. It also discusses the debate over the effects of advertising.

The next three chapters present issues related to labor markets. Chapter 18, "The Markets for the Factors of Production," emphasizes the link between factor prices and marginal productivity. Chapter 19, "Earnings and Discrimination," discusses the determinants of equilibrium wages, including compensating differentials, human capital, and discrimination. Chapter 20, "Income Inequality and Poverty," examines the degree of inequality in U.S. society, alternative views about the government's role in changing the distribution of income, and various policies aimed at helping society's poorest members.

The next two chapters present optional material. Chapter 21, "The Theory of Consumer Choice," analyzes individual decision making using budget constraints and indifference curves. Chapter 22, "Frontiers of Microeconomics," introduces the topics of asymmetric information, political economy, and behavioral economics. Some instructors may skip all or some of this material. Instructors who do cover these topics may choose to assign these chapters earlier than they are presented in the book, and I have written them to give instructors flexibility.

## **Macroeconomics**

My overall approach to teaching macroeconomics is to examine the economy in the long run (when prices are flexible) before examining the economy in the short run (when prices are sticky). I believe that this organization simplifies learning macroeconomics for several reasons. First, the classical assumption of price flexibility is more closely linked to the basic lessons of supply and demand, which students have already mastered. Second, the classical dichotomy allows the study of the long run to be broken up into several easily digested pieces. Third, because the business cycle represents a transitory deviation from the economy's long-run growth path, studying the transitory deviations is more natural after the long-run equilibrium is understood. Fourth, the macroeconomic theory of the short run is more controversial among economists than the macroeconomic theory of the long run. For these reasons, most upper-level courses in macroeconomics now follow this long-run-before-short-run approach; my goal is to offer introductory students the same advantage.

I start the coverage of macroeconomics with issues of measurement. Chapter 23, "Measuring a Nation's Income," discusses the meaning of gross domestic product and related statistics from the national income accounts. Chapter 24, "Measuring the Cost of Living," discusses the measurement and use of the consumer price index.

The next four chapters describe the behavior of the real economy in the long run. Chapter 25, "Production and Growth," examines the determinants of the large variation in living standards over time and across countries. Chapter 26, "Saving, Investment, and the Financial System," discusses the types of financial institutions in our economy and examines their role in allocating resources. Chapter 27, "The Basic Tools of Finance," introduces present value, risk management, and asset pricing. Chapter 28, "Unemployment," considers the long-run determinants of the unemployment rate, including job search, minimum-wage laws, the market power of unions, and efficiency wages.

Having described the long-run behavior of the real economy, the book then turns to the long-run behavior of money and prices. Chapter 29, "The Monetary System," introduces the economist's concept of money and the role of the central bank in controlling the quantity of money. Chapter 30, "Money Growth and Inflation," develops the classical theory of inflation and discusses the costs that inflation imposes on a society.

The next two chapters present the macroeconomics of open economies, maintaining the long-run assumptions of price flexibility and full employment. Chapter 31, "Open-Economy Macroeconomics: Basic Concepts," explains the relationship among saving, investment, and the trade balance, the distinction between the nominal and real exchange rate, and the theory of purchasing-power parity. Chapter 32, "A Macroeconomic Theory of the Open Economy," presents a classical model of the international flow of goods and capital. The model sheds light on various issues, including the link between budget deficits and trade deficits and the macroeconomic effects of trade policies. Because instructors differ in their emphasis on this material, these chapters are written so they can be used in different ways. Some may choose to cover Chapter 31 but not Chapter 32; others may skip both chapters; and still others may choose to defer the analysis of open-economy macroeconomics until the end of their courses.

After developing the long-run theory of the economy in Chapters 25 through 32, the book turns to explaining short-run fluctuations around the long-run trend. This organization simplifies teaching the theory of short-run fluctuations because, at this point in the course, students have a good grounding in many basic macroeconomic concepts. Chapter 33, "Aggregate Demand and Aggregate Supply," begins with some facts about the business cycle and then introduces the model of aggregate demand and aggregate supply. Chapter 34, "The Influence of Monetary and Fiscal Policy on Aggregate Demand," explains how policymakers can use the tools at their disposal to shift the aggregate-demand curve. Chapter 35, "The Short-Run Trade-off between Inflation and Unemployment," explains why policymakers who control aggregate demand face a trade-off between inflation and unemployment. It examines why this trade-off exists in the short run, why it shifts over time, and why it does not exist in the long run.

The book concludes with Chapter 36, "Five Debates over Macroeconomic Policy." This capstone chapter considers five controversial issues facing policymakers: the proper degree of policy activism in response to the business cycle, the choice between rules and discretion in the conduct of monetary policy, the desirability of

reaching zero inflation, the importance of balancing the government's budget, and the need for tax reform to encourage saving. For each issue, the chapter presents both sides of the debate and encourages students to make their own judgments.

### Learning Tools

The purpose of this book is to help students learn the fundamental lessons of economics and to show how they can apply these lessons to their lives and to the world in which they live. Toward that end, I have used various learning tools that recur throughout the book.

**Case Studies** Economic theory is useful and interesting only if it can be applied to understanding actual events and policies. This book, therefore, contains numerous case studies that apply the theory that has just been developed.

**FYI Boxes** These boxes provide additional material "for your information." Some of them offer a glimpse into the history of economic thought. Others clarify technical issues. Still others discuss supplementary topics that instructors might choose either to discuss or skip in their lectures.

**Definitions of Key Concepts** When key concepts are introduced in the chapter, they are presented in **bold** typeface. In addition, their definitions are placed in the margins. This treatment should aid students in learning and reviewing the material.

**Quick Quizzes** After each major section, students are offered a Quick Quiz to check their comprehension of what they have just learned. If students cannot readily answer these quizzes, they should stop and reread material before continuing. The answers to all Quick Quizzes are in an appendix at the back of the book.

**Chapter Summaries** Each chapter ends with a brief summary that reminds students of the most important lessons that they have just learned. Later in their study, it offers an efficient way to review for exams.

**List of Key Concepts** A list of key concepts at the end of each chapter offers students a way to test their understanding of the new terms that have been introduced. Page references are included so that students can review the terms they do not understand.

**Questions for Review** At the end of each chapter are questions for review that cover the chapter's primary lessons. Students can use these questions to check their comprehension and to prepare for exams.

**Problems and Applications** Each chapter also contains a variety of problems and applications that ask students to apply the material that they have learned. Some professors may use these questions for homework assignments. Others may use them as a starting point for classroom discussions.

## Alternative Versions of the Books

The book you are holding in your hand is one of five versions of this book that are available for introducing students to economics. Cengage South-Western Publishing and I offer this menu of books because instructors differ in how much time they have and what topics they choose to cover. Here is a brief description of each:

- *Principles of Economics*. This complete version of the book contains all 36 chapters. It is designed for two-semester introductory courses that cover both microeconomics and macroeconomics.
- *Principles of Microeconomics*. This version contains 22 chapters and is designed for one-semester courses in introductory microeconomics.
- *Principles of Macroeconomics*. This version contains 23 chapters and is designed for one-semester courses in introductory macroeconomics. It contains a full development of the theory of supply and demand.
- *Brief Principles of Macroeconomics*. This shortened macro version of 18 chapters contains only one chapter on the basics of supply and demand. It is designed for instructors who want to jump to the core topics of macroeconomics more quickly.
- *Essentials of Economics*. This version of the book contains 24 chapters. It is designed for one-semester survey courses that cover the basics of both microeconomics and macroeconomics.

The accompanying table shows precisely which chapters are included in each book. Instructors who wish more information about these alternative versions should contact their local South-Western representative.

## Supplements

Cengage South-Western offers various supplements for instructors and students who use this book. These resources make teaching the principles of economics easy for the professor and learning them easy for the student. David R. Hakes of the University of Northern Iowa, a dedicated teacher and economist, supervised the development of the supplements for this edition. A list of available supplements follows this Preface.

## Translations and Adaptations

I am delighted that versions of this book are (or will soon be) available in many of the world's languages. Currently scheduled translations include Azeri, Chinese (in both standard and simplified characters), Croatian, Czech, Dutch, French, Georgian, German, Greek, Indonesian, Italian, Japanese, Korean, Macedonian, Montenegrin, Portuguese, Romanian, Russian, Serbian, and Spanish. In addition, adaptations of the book for Australian, Canadian, and European students are also available. Instructors who would like more information about these books should contact Cengage South-Western.

## AVAILABLE VERSIONS

## The Five Versions of This Book

| Chapter                                                             | Principles of Economics | Principles of Microeconomics | Principles of Macroeconomics | Brief Principles of Macroeconomics | Essentials of Economics |
|---------------------------------------------------------------------|-------------------------|------------------------------|------------------------------|------------------------------------|-------------------------|
| 1. Ten Principles of Economics                                      | X                       | X                            | X                            | X                                  | X                       |
| 2. Thinking Like an Economist                                       | X                       | X                            | X                            | X                                  | X                       |
| 3. Interdependence and the Gains from Trade                         | X                       | X                            | X                            | X                                  | X                       |
| 4. The Market Forces of Supply and Demand                           | X                       | X                            | X                            | X                                  | X                       |
| 5. Elasticity and Its Application                                   | X                       | X                            | X                            |                                    | X                       |
| 6. Supply, Demand, and Government Policies                          | X                       | X                            | X                            |                                    | X                       |
| 7. Consumers, Producers, and the Efficiency of Markets              | X                       | X                            | X                            |                                    | X                       |
| 8. Application: The Costs of Taxation                               | X                       | X                            | X                            |                                    | X                       |
| 9. Application: International Trade                                 | X                       | X                            | X                            |                                    | X                       |
| 10. Externalities                                                   | X                       | X                            |                              |                                    | X                       |
| 11. Public Goods and Common Resources                               | X                       | X                            |                              |                                    | X                       |
| 12. The Design of the Tax System                                    | X                       | X                            |                              |                                    |                         |
| 13. The Costs of Production                                         | X                       | X                            |                              |                                    | X                       |
| 14. Firms in Competitive Markets                                    | X                       | X                            |                              |                                    | X                       |
| 15. Monopoly                                                        | X                       | X                            |                              |                                    | X                       |
| 16. Oligopoly                                                       | X                       | X                            |                              |                                    |                         |
| 17. Monopolistic Competition                                        | X                       | X                            |                              |                                    |                         |
| 18. The Markets for the Factors of Production                       | X                       | X                            |                              |                                    |                         |
| 19. Earnings and Discrimination                                     | X                       | X                            |                              |                                    |                         |
| 20. Income Inequality and Poverty                                   | X                       | X                            |                              |                                    |                         |
| 21. The Theory of Consumer Choice                                   | X                       | X                            |                              |                                    |                         |
| 22. Frontiers of Microeconomics                                     | X                       | X                            |                              |                                    |                         |
| 23. Measuring a Nation's Income                                     | X                       |                              | X                            | X                                  | X                       |
| 24. Measuring the Cost of Living                                    | X                       |                              | X                            | X                                  | X                       |
| 25. Production and Growth                                           | X                       |                              | X                            | X                                  | X                       |
| 26. Saving, Investment, and the Financial System                    | X                       |                              | X                            | X                                  | X                       |
| 27. The Basic Tools of Finance                                      | X                       |                              | X                            | X                                  | X                       |
| 28. Unemployment                                                    | X                       |                              | X                            | X                                  | X                       |
| 29. The Monetary System                                             | X                       |                              | X                            | X                                  | X                       |
| 30. Money Growth and Inflation                                      | X                       |                              | X                            | X                                  | X                       |
| 31. Open-Economy Macroeconomics: Basic Concepts                     | X                       |                              | X                            | X                                  |                         |
| 32. A Macroeconomic Theory of the Open Economy                      | X                       |                              | X                            | X                                  |                         |
| 33. Aggregate Demand and Aggregate Supply                           | X                       |                              | X                            | X                                  | X                       |
| 34. The Influence of Monetary and Fiscal Policy on Aggregate Demand | X                       |                              | X                            | X                                  | X                       |
| 35. The Short-Run Trade-off between Inflation and Unemployment      | X                       |                              | X                            | X                                  |                         |
| 36. Five Debates over Macroeconomic Policy                          | X                       |                              | X                            | X                                  |                         |

**Note:** Chapter numbers refer to the complete book, *Principles of Economics*.



## Acknowledgments

In writing this book, I benefited from the input of many talented people. Indeed, the list of people who have contributed to this project is so long that it seems an injustice that only a single name appears on the cover.

Let me begin with my colleagues in the economics profession. The four editions of this text and its supplemental materials have benefited enormously from their input. In reviews and surveys, they have offered suggestions, identified challenges, and shared ideas from their own classroom experience. I am indebted to them for the perspectives they have brought to the text. Unfortunately, the list has become too long to thank those who contributed to previous editions, even though students reading the current edition are still benefiting from their insights.

Most important in this process have been Ron Cronovich (University of Nevada at Las Vegas) and David Hakes (University of Northern Iowa). Ron and David are dedicated teachers who have been a reliable sounding board for ideas and hard-working partners with me in putting together the superb package of supplements.

For this new edition, the following diary reviewers recorded their day-to-day experience over the course of a semester, offering detailed suggestions about how to improve the text. These reviewers included instructors and students.

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Anne Bunton, *Cotley College*  
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 Lauren Jeffries, Jennifer Seidel, and Bryan Shrode, *University of Central Florida*

Cameron Alexis Moore, *Illinois Wesleyan University*  
 Xuan Thuong Nguyen and Anne Scudder, *Santa Clara University*  
 Eric Rader, Stormy Shippy, and Kevin Smith, *University of North Texas*  
 Sarah Ritterhoff and Jyoti Singh, *Towson University*

The following reviewers of the third edition provided suggestions for refining the content, organization, and approach in the fourth.

|                                                                |                                                                      |                                                                |
|----------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------|
| Rashid Al Hmoud, <i>Texas Tech University</i>                  | Christopher Klein, <i>Middle Tennessee State University</i>          | Udayan Roy, <i>Long Island University</i>                      |
| Mark Ashe, <i>Westminster College</i>                          | Jim Lee, <i>Texas A&amp;M University, Corpus Christi</i>             | William Sander, <i>DePaul University</i>                       |
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| Tom Casey, <i>DeVry University</i>                             | Peter Martinez, <i>Danbury High School</i>                           | Robert Schwab, <i>University of Maryland</i>                   |
| Brad Causey, <i>Sycamore High School</i>                       | Kate Matraives, <i>Albion College</i>                                | Juha Seppälä, <i>University of Illinois</i>                    |
| Sandy Chau, <i>The Hong Kong Polytechnic University</i>        | Pete Mavrokordatos, <i>Tarrant County College</i>                    | William Seyfried, <i>Winthrop University</i>                   |
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| Anna DellaValle, <i>Columbia University</i>                    | Kim Merritt, <i>Cameron University</i>                               | Kenneth Smith, <i>Millersville University</i>                  |
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| Kent Ford, <i>Onondaga Community College, Syracuse</i>         | Una Osili, <i>Indiana University–Purdue University, Indianapolis</i> | Jogindar S. Uppal, <i>State University of New York, Albany</i> |
| Roger Frantz, <i>San Diego State University</i>                | Kathy Parkison, <i>Indiana University, Kokomo</i>                    | Walter Wessels, <i>North Carolina State University</i>         |
| Steve Freeman, <i>Capital High School</i>                      | Thomas Pogue, <i>University of Iowa</i>                              | Kathryn Wilson, <i>Kent State University</i>                   |
| Shailendra Gajanan, <i>University of Pittsburgh, Bradford</i>  | Diane Primont, <i>Southeast Missouri State University</i>            | Sheng-Ping Yang, <i>Wayland Baptist University</i>             |
| Tommy Georgiades, <i>DeVry University</i>                      | Lou Quiros, <i>College of Westchester</i>                            | Bassam Yousif, <i>California State University, Fullerton</i>   |
| Larry Hagan, <i>DeVry University</i>                           | James Ragan, <i>Kansas State University</i>                          |                                                                |
| Phil Holleran, <i>Radford University</i>                       | Raymond Robertson, <i>Macalester College</i>                         |                                                                |
| Hans Isakson, <i>University of Northern Iowa</i>               | James Roumasset, <i>University of Hawaii, Manoa</i>                  |                                                                |
| Leo Kahane, <i>California State University, Hayward</i>        |                                                                      |                                                                |

I received detailed feedback on specific elements in the text, including all end-of-chapter problems and applications, from the following instructors.

|                                                               |                                                             |                                                                |
|---------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------|
| Josiah Baker, <i>University of Central Florida</i>            | Fred Foldvary, <i>Santa Clara University</i>                | Peter Olson, <i>Indiana University</i>                         |
| J. Ulysses Balderas, <i>University of Colorado-Boulder</i>    | Lynn Gillette, <i>University of Kentucky</i>                | Drew Parkes, <i>University of Northern Iowa</i>                |
| King Banaian, <i>Saint Cloud State University</i>             | Phillip Holleran, <i>Radford University</i>                 | Jodi Pelkowski, <i>Wichita State University</i>                |
| Bruce Brown, <i>California State Polytechnic, Pomona</i>      | James Hvidding, <i>Kutztown University</i>                  | Michael Pisani, <i>Central Michigan University</i>             |
| Byron Chapman, <i>Ohio State University</i>                   | Hans Isakson, <i>University of Northern Iowa</i>            | Marlene Reed, <i>Samford University</i>                        |
| Margaret Chapman, <i>Illinois Wesleyan University</i>         | Leo Kahane, <i>California State University, Hayward</i>     | Thomas Rhoads, <i>Towson University</i>                        |
| Basanta Chaudhuri, <i>Rutgers University</i>                  | Brian Kench, <i>University of Tampa</i>                     | Raymond Robertson, <i>Macalester College</i>                   |
| Sean Corcoran, <i>California State University, Sacramento</i> | Christopher Klein, <i>Middle Tennessee State University</i> | June Roux, <i>Salem Community College</i>                      |
| Christopher Cornell, <i>Fordham University</i>                | Todd Knoop, <i>Cornell College</i>                          | Udayan Roy, <i>Long Island University</i>                      |
| Barbara Craig, <i>Oberlin College</i>                         | Charles Krusekopf, <i>Austin College</i>                    | William Sander, <i>DePaul University</i>                       |
| Eleanor Craig, <i>University of Delaware</i>                  | John Lovett, <i>Texas Christian University</i>              | Juha Seppälä, <i>University of Illinois</i>                    |
| Susanne Currier, <i>University of Central Oklahoma</i>        | Fiona C. MacLachlan, <i>Manhattan College</i>               | William Seyfried, <i>Winthrop University</i>                   |
| Susan Dadres, <i>Southern Methodist University</i>            | Thomas Makemson, <i>Webster University</i>                  | Charles Sicotte, <i>Rock Valley College</i>                    |
| Alan Deardorff, <i>University of Michigan</i>                 | Daniel Marburger, <i>Arkansas State University</i>          | Kenneth Smith, <i>Millersville University</i>                  |
| Stratford Douglas, <i>West Virginia University</i>            | Catherine Mataves, <i>Michigan State University</i>         | Jogindar S. Uppal, <i>State University of New York, Albany</i> |
| David Eaton, <i>Murray State University</i>                   | Tom Means, <i>San Jose State University</i>                 | John Volpe, <i>Trinity College</i>                             |
| Can Erbil, <i>Brandeis University</i>                         | Jeffrey Michael, <i>Towson University</i>                   | David Wihry, <i>University of Maine</i>                        |
| Patricia Euzent, <i>University of Central Florida</i>         | Debasri Mukherjee, <i>Western Michigan University</i>       | Virginia Wilcox-Gok, <i>Northern Illinois University</i>       |
|                                                               |                                                             | William Wood, <i>James Madison University</i>                  |
|                                                               |                                                             | Sheng P. Yang, <i>Black Hills State University</i>             |