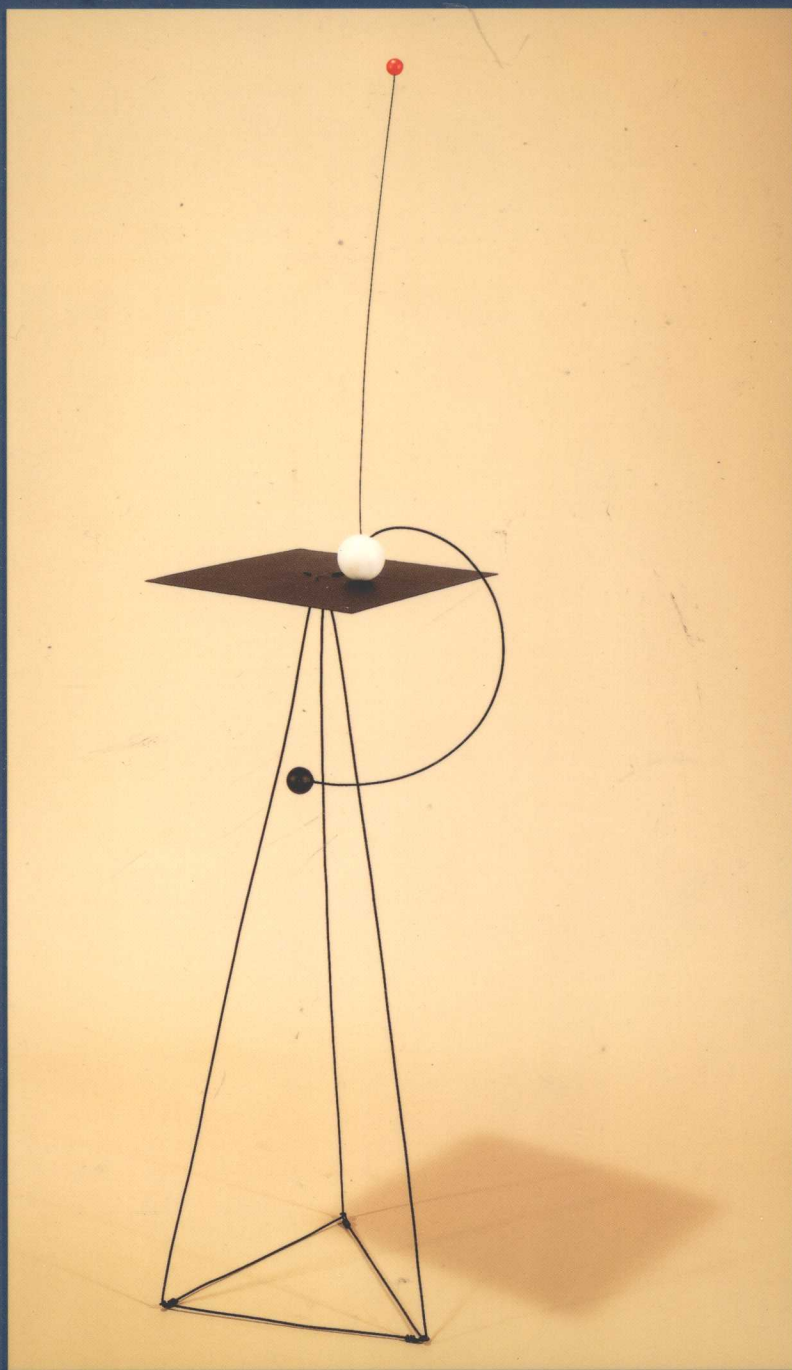


COLANDER

MACROECONOMICS



FOURTH EDITION

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FOURTH EDITION

David C. Colander

Middlebury College



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Macroeconomics FOURTH EDITION

McGraw-Hill Higher Education

A Division of The McGraw-Hill Companies

MACROECONOMICS

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This book is printed on acid-free paper.

1 2 3 4 5 6 7 8 9 0 KPH/KPH 0 9 8 7 6 5 4 3 2 1 0

ISBN 0256172668

Vice president/Editor-in-chief: *Michael W. Junior*

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Supplement coordinator: *Becky Szura*

Compositor: *GAC/Indianapolis*

Typeface: *Goudy*

Printer: *Quebecor Printing Group/Hawkins*

Library of Congress Cataloging-in-Publication Data

Colander, David C.

Macroeconomics/David C. Colander.—4th ed.

p. cm.

A multi-media instructional package with related Website is available to supplement the text.

Includes index.

ISBN 0-07-231795-7

1. Macroeconomics. I. Title.

HB172.5 .C638 2001

339—dc21

00-040691

www.mhhe.com

*Dedicated to the memory of Frank Knight and
Thorstein Veblen, both of whose economics have significantly
influenced the contents of this book.*



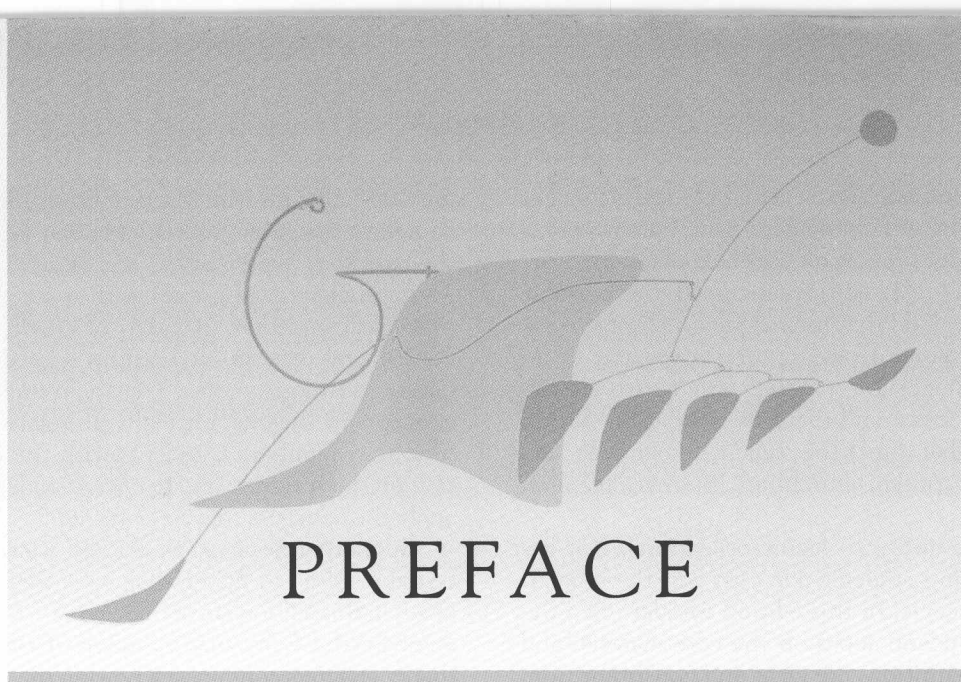
ABOUT THE AUTHOR

David Colander is the Christian A. Johnson Distinguished Professor of Economics at Middlebury College. He has authored, coauthored, or edited 35 books and over 100 articles on a wide range of economic topics.

He earned his B.A. at Columbia College and his M.Phil and Ph.D. at Columbia University. He also studied at the University of Birmingham in England and at Wilhelmsburg Gymnasium in Germany. Professor Colander has taught at Columbia College, Vassar College, and the University of Miami, as well as having been a consultant to Time-Life Films, a consultant to Congress, a Brookings Policy Fellow, and Visiting Scholar at Nuffield College, Oxford.

He belongs to a variety of professional associations and has served on the board of directors and as vice president and president of both the History of Economic Thought Society and the Eastern Economics Association. He has also served on the editorial boards of the *Journal of Economic Perspectives*, *The Journal of Economic Education*, *The Journal of Economic Methodology*, *The Journal of the History of Economic Thought*, and *The Eastern Economics Journal*.

He is married to a pediatrician, Patrice, who has a private practice in Middlebury, Vermont. In their spare time, the Colanders designed and built their oak post-and-beam house on a ridge overlooking the Green Mountains to the east and the Adirondacks to the west. The house is located on the site of a former drive-in movie theater. (They replaced the speaker poles with fruit trees and used the I-beams from the screen as support for the second story of the carriage house and the garage. Dave's office and library are in the former projection room.)



PREFACE

"Imagine . . . a textbook that students enjoy!" An instructor at a large school in the Midwest e-mailed me that comment just as I began to write this preface. It captures what I believe to be the most distinctive feature of my book—students enjoy reading it.

The first edition of *Macroeconomics* was well received; it was, in large part, a standard book in both tone and structure. Students liked it, but it was seen by some as a bit idiosyncratic; it had its own presentation of AS/AD, some novel metaphors, and significantly more history and information about institutions than most books had.

As I have emphasized in my writing about textbooks, there are strong forces pulling all textbooks toward a middle ground, and those forces have affected my book too. In the second and third editions I removed some of the idiosyncrasies while maintaining the voice that appeals to students. This edition continues that process.

NEW TO THE FOURTH EDITION

The fourth edition is the most teachable yet. It is shorter; it reflects many recent changes in the economy and the profession; and many of its more challenging presentations have been simplified. The following sections review the major changes. Please visit the Colander Web site (www.mhhe.com/economics/colander) for a complete list.

● Shorter

There's a fine line between inclusive and encyclopedic; previous editions tried to be inclusive but not encyclopedic. Encyclopedias don't excite students. I've felt this way for a long time but could never decide what material to leave out, which left previous editions bordering on ency-

clopedic. This edition pulls away from that edge. When developing this edition, we asked instructors which chapters they assign. The instructors told us that they liked many of the later chapters but didn't have time to teach them. I decided to cut any chapter that was assigned by fewer than 15 percent of our users. The resulting text is five chapters shorter than its predecessor. I used the same criterion to cut numerous appendixes. I also tried to cut out tangents from chapters so that students could more easily focus on core content. This left a shorter, cleaner, more straightforward presentation of the central ideas of economics. For example, Chapter 3, The U.S. Economy in a Global Setting, combines third-edition Chapters 5 and 6. The combined chapter is much shorter and surveys the issues while saving the analysis for the micro and macro core chapters.

● Innovation and Globalization

The economy has changed significantly in the last few years, and this edition reflects that change. The revisions emphasize the digital revolution, which affects both technology and innovation, and globalization and its effect on growth. Chapter 2 gives the example of how the University of Phoenix, which provides online classrooms, competes with traditional "brick-and-mortar" colleges. An entire chapter, Chapter 8, Growth, Productivity, and the Wealth of Nations, focuses on technology and growth.

● Changes in Style and Pedagogy

In response to reviewer feedback, the fourth edition contains fewer nonstandard terms and presentations. For example, the first three editions used metaphors—the invisible handshake and the invisible foot—to describe the social and political forces that influence the economy.

I still like those metaphors, but several instructors thought they were distracting so I eliminated them. I discuss political and social forces; I just don't use the metaphors.

The second and third editions included the "portable tutor," a pedagogical aid that uses the text margins to ask questions that reinforce Learning Objectives and to remind students of important material. The fourth edition continues that practice and expands it by using World Wide Web icons that direct the student to our Web site, which contains content-enriching Internet research exercises.

Terminology is meant to facilitate learning. If it becomes overwhelming, students don't get past the nomenclature to the concepts. In this edition we identified the terms that help students focus on the core material and made sure their definitions are clear and consistent from chapter to chapter.

Another major change is, for the most part, invisible. It involves the enormous work done by me; my assistant in writing this book, Jenifer Gamber; my editors at McGraw-Hill; and the reviewers. We went through the book line by line to ensure that the pedagogy was solid. Earlier editions were sometimes described as "big picture" books. The big picture remains, but in this fourth edition the details are clearer. This edition presents a brick-by-brick, click-by-click, structure in which the presentation is clear and logical from the ground up. Here are some examples of the changes: Chapter 4, Supply and Demand, now discusses shift factors of demand and supply individually, and Chapter 5 immediately gives students the opportunity to apply those shift factors to the real world, where multiple shift factors may move simultaneously. Chapter 9, Aggregate Demand, Aggregate Supply, and Modern Macroeconomics, offers a careful, uncomplicated explanation of the three shift factors of the aggregate demand curve, and then shows students how to apply the model to policy issues.

Learning depends on organization. In this edition, we've worked hard to make elements dovetail within chapters. Learning Objectives, which are consistent with the structure of each chapter, serve as quick chapter introductions and can be used by students as self-quizzes. Judiciously chosen key terms are carefully defined in context, and chapter summaries consolidate main points within the Learning Objectives framework. End-of-chapter questions, including many that require Internet research, reinforce the Learning Objectives as they test student comprehension.

Pedagogy should reinforce content and help students do well on exams. This requires not only a clearly written book but also a book that gives students an opportunity to try out their new knowledge. In addition to the critical thinking questions that have been a hallmark of

previous editions, the fourth edition includes more fundamental questions so students can be sure they know the basics.

Each chapter also ends with a set of Web questions that direct students to a variety of sites from think tanks to government data sites to business-related sites. These new questions fill many roles: They help students see how the concepts in the chapter really do relate to real-world issues; they familiarize students with the mass of information on the Internet; and they give students the chance to apply the concepts they're learning.

In another pedagogical change, we've reorganized the boxed material to fit the theme of "tools, not rules." The boxes in this edition are of three types—Knowing the Tools, Applying the Tools, and Beyond the Tools. Each of the core theory chapters contains a Knowing the Tools box that reviews that chapter's most important concepts, models, and definitions. Applying the Tools boxes provide real-world applications or information related to the chapter. Material that places a concept in a broader or more institutional context appears in Beyond the Tools boxes. These carefully defined boxes help students categorize complementary content as they read through the chapters.

We've also kept the popular colloquial glossary that has been a favorite of ESL students.

● Major Changes

The three biggest changes in the book are (1) a restructuring of the macro presentation to a long-run first presentation, (2) the change to a more traditional treatment of the AS/AD model, and (3) the focus on a single model with fewer Keynesian/Classical distinctions. We also made numerous smaller changes that improve pedagogy. Both major and some smaller changes are listed below.

- *Expanded and earlier coverage of growth.* New Chapter 8, Growth, Productivity, and the Wealth of Nations, presents the long-run framework that determines potential income and growth before presenting the short-run framework relevant for fluctuations. This change reflects the growing interest in the long run and sets the stage for an integrated discussion of macro policy. The growth presentation is an intuitive one, emphasizing gains from trade, specialization, and division of labor, not an analytic one based on the Solow growth model. The chapter presents the empirical evidence showing a correlation between markets and growth, and discusses why markets lead to growth. It concludes with a discussion of government policies that promote growth.

- *Surrender to AS/AD terminology.* Those of you familiar with my book and with me know that I have battled against the way AS/AD is presented in economic texts. In this edition I surrender. My alternative terminology did not catch on at the principles level; it involved simply too much analytics for students to learn, and so in this edition I use standard AS/AD terminology. I don't regard the fight as a total loss. In some ways I, together with a large number of other economists who wrote technical articles, won the battle; all principles books now do a much better job of presenting the AS/AD model and distinguishing it from a micro supply/demand model, so using the standard terminology is not so objectionable now.
- The AS/AD modification required major changes to Chapter 9, Aggregate Demand, Aggregate Supply, and Modern Macroeconomics. First, I simplified the presentation of both the AS and AD curves. The AD curve is presented clearly, with a minimum of technical additions. Similarly, to keep the presentation as simple as possible, and consistent with recent experience, the short-run AS curve is presented as perfectly elastic, with changes in price levels coming from changes in factor prices in excess of rising productivity. I combined these two curves to create a simple model that can easily be used to discuss policy issues. Moreover, because I develop potential income in the previous chapter, I now use the AS/AD model to bring together the short-run and long-run frameworks.
- *Fewer Keynesian/Classical distinctions.* Modern economics has arrived at a combined macro model that most economists support; this edition focuses on that model and downplays the Keynesian/Classical policy debates that were central in earlier editions. There are still differences of opinion, but they are differences of interpretations within a model, not differences of models.
- *Repositioned money and banking chapter.* Chapter 13, Money, Banking, and the Financial Sector, now forms part of a more standard sequence. It comes after the discussion of theory and immediately before the monetary policy chapter.
- *A change in focus from deficits to surpluses.* The revised, briefer Chapter 12, Politics, Surpluses, Deficits, and Debt, reflects current reality by shifting emphasis from deficits to surpluses. In order to facilitate an early discussion of the integration of long-run and short-run budgetary issues, it comes just after the fiscal policy (demand management) chapter. Two timely and relevant case studies—current and projected budget surpluses and Social Security reform—are presented.
- *A simplified presentation of inflation.* Chapter 15, Inflation and Its Relation to Unemployment and Growth, has been simplified considerably. The first half of the chapter replaces the previous Keynesian/Classical inflation arguments with a simpler presentation of the basics of inflation. The chapter is given a contemporary policy focus with examples from Chile, Finland, Brazil, and New Zealand. The connection between the short-run and long-run Phillips curve has also been simplified.
- *A switch in the order of international chapters.* Chapter 16, Open Economy Macro: Exchange Rate and Trade Policy, now appears before the other international macro chapter (International Dimensions of Monetary and Fiscal Policies). It includes timely coverage of the late-1990s currency crisis, recent developments in Asia, and the evolution of the euro.
- *A new summary chapter.* New Chapter 18, Tools, Rules, and Policy, summarizes the theory and policy discussions and helps students prepare for the final exam by tying together tools, institutions, and policy discussions. It first reviews the models and then uses them to explain and discuss policy. It emphasizes policy regimes and expectations, including the need for credibility in rules. The chapter ends by addressing the question "Has the economy entered a new era?"
- **Standard Updating**
Every chapter has been updated with the latest possible statistics and the most up-to-date policy discussions.
- **Design**
Besides being different, the fourth edition also *looks* different. The design is more open and the typeface more reader-friendly. A lighter color palette makes the graphs and charts easier to read. The Tools boxes are more integrated so that students are less likely to skip over them. Visual elements based on the works of sculptor Alexander Calder provide a subtle, whimsical reminder that the economy, like mobiles, involves intertwined parts that need to be carefully balanced and coordinated.

WHAT WE'VE KEPT

The above discussion may make this seem like a whole new book; it isn't. *Macroeconomics* is still written by me with the same essential elements that differentiate it from other books. This includes the focus on teaching economic sensibility and the maintenance of my voice, both in the examples and in the passionate writing style. It also includes an approach that my friend David Littlehale describes as aggressively neutral. He points out that I have this trait of going right into the middle of fights, rather than shying away from them, and picking on both sides. I end up neutral, but not in the standard way.

Finally, while institutions and history receive less coverage, they remain important to me, so you will still find more historical and institutional issues in this book than in almost any other principles book.

ANCILLARIES

All reviewers agreed that the third edition's ancillaries were top rate. If there was a problem it was that there were too many of them. Thus, in this edition we have consolidated and incorporated the best of the previous edition's supplements into an accessible, convenient package.

● Study Guide

We combined the best of the *Drill and Review Study Guide* and the *Student Workbook* into a single *Study Guide*. This guide—written by myself, Douglas Copeland of Johnson County Community College, and Jenifer Gamber—reviews the main concepts from each chapter and applies those concepts in a variety of ways: short-answer questions, matching terms with definitions, problems and applications, a brain teaser, multiple-choice questions, and potential essay questions. Since students learn best not by just knowing the right answer but by understanding how to get there, each answer comes with an explanation. Timed cumulative pretests help students prepare for exams.

● Instructor's Manual

In the fourth edition, Tom Adams of Sacramento City College has raised the standard for all instructor's manuals. Eight new features make class preparation easier than ever. "Chapter Overview" and "What's New" provide a quick review of each chapter. "What's New" will be invaluable when modifying lecture notes to fit the new edition. The manual provides you with comprehensive lecture outlines,

but it also offers help for inevitable classroom trouble spots. "Discussion Starters" will help engage your students and keep them thinking. "Tips for Teaching Large Sections," written by Gail Hoyt of the University of Kentucky, offers innovative ideas for teaching very large classes. "Student Stumbling Blocks" provides additional explanations or examples that help clarify difficult concepts. "Ties to the Tools" helps bring those text boxes into the classroom; a comprehensive list of relevant URLs brings the Internet in too. Every chapter's 10-question "Pop Quiz" will help students prepare for exams. The "Case Studies" provide contemporary, real-world economic examples. The entire instructor's manual is available in print and electronic forms and on the Colander Web site.

● Test Banks

James DeVault of Lafayette College revised Testbanks A and B (the 5,500-question multiple-choice test banks). Each question is categorized by chapter Learning Objective; level of difficulty (easy, medium, hard); skill being tested (recall, comprehension, application); and type of question (word problem, calculation, graph). Approximately 30 percent of the questions are new, and many more are revised. Each question was reviewed by Jenifer or myself for accuracy, clarity, and consistency with the textbook. They are available in print form, in the Diploma electronic test generating system.

Expanded Test Bank C, revised by Patrick O'Neill of the University of North Dakota, now consists of over 300 short-answer questions, essay questions, and graphical and mathematical problems. Questions vary in level of difficulty and type of skill being tested. They are available in print and electronic form.

● DiscoverEcon

This menu-driven software, which was developed by Gerald Nelson at the University of Illinois, is a complete text-specific student tutorial. Each chapter includes essay questions, Web links and research questions, and a multiple-choice quiz. Interactive graphing problems, animated charts, and live tables help students understand how different data impact the economy. Text references and glossary links help clarify key concepts. Exercises are graded immediately, and results can be submitted to the instructor either on paper or electronically. It is available both as a CD version and in an online version.

● PowerPoint Presentation

Anthony Zambelli of Cuyameca College has once again prepared an extensive slide program that includes all text

exhibits and key concepts. They are available on CD-ROM and on our Web site.

● Overhead Transparencies

We offer all key text exhibits in full-color acetate form for use with overhead projectors.

● Economics Web Newsletter

This electronic newsletter contains 10 questions related to current economic events that can be used as an in-class quiz and reprints one recent *Wall Street Journal* article along with five in-depth questions (and answers) that are tied to specific text chapters. Seven new exercises will be added each semester.

● Classic Readings in Economics

This collection includes selections from the writings of economists, such as Smith, Marx, Hayek, or Veblen, who have raised questions that changed the direction of economic thinking. This material is especially useful for courses that stress the importance of economic ideas.

● Economics: An Honors Companion

The honors companion presents mathematical techniques that underlie numerous basic economic concepts. It presupposes a solid student background in algebra and geometry and some familiarity with basic calculus, thereby providing a easy way to enrich the course for students with better math backgrounds.

● On the Web

Our new Web site offers a wealth of materials for both students and teachers. The eLearningSessions, prepared by Douglas Copeland of Johnson County Community College, are a set of Internet modules based upon a mastery system of learning, reviewing, and testing. Students are initially presented with an introduction to each chapter and then asked to take a pretest, which is then graded and returned with correct answers and rationales. Students can then address any weaknesses in their understanding by using one of several study modules: Key Terms, a list of the key terms of the chapter with a link to their definitions; Learning Objectives, what students should take away from the chapter; a Tutorial, three to five exercises, with a step-by-step guide to answering each question successfully; and some Practice Exercises, three to five additional problems and answers. The session is completed when students take a multiple-choice posttest.

Students can broaden their understanding with Web Notes and Current Events, two features prepared by Kit Sims Taylor of Bellevue Community College. Web Notes—

Web exercises written for the textbook and identified in the text by margin icons—present links, articles, short analyses, and follow-up questions focusing on each chapter's key points. Current Events—a set of six current, real-world issues with introductions, links to articles, and follow-up questions—will be updated throughout the year as issues facing our economy change. In addition, the student center includes a listing of each chapter's Web Questions, a Bulletin Board, Frequently Asked Questions, Bonus Chapters, a guide to writing economics, a career center, a graphing tool, and the Economics Web Newsletter.

Teachers will also find, among other things, the Instructor's Manual, solutions to end-of-chapter questions, PowerPoints, Sample Syllabi, a bulletin board for instructors, and a link to my own Web site.

I'm very proud of the ancillary package. I think you will find that its high quality, enormous diversity, and exceptional utility make the book a complete learning system.

PEOPLE TO THANK

A book this size is not the work of a single person, despite the fact that only one is listed as author. So many people have contributed so much to this book that it is hard to know where to begin thanking them. But I must begin somewhere, so let me begin by thanking the fourth edition reviewers, whose insightful comments kept me on track.

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I'd also like to thank the reviewers of the previous three editions. This new book builds on their insights.

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I have received helpful comments, suggestions, encouragement, and assistance from innumerable individuals. Their help made the book better than it otherwise would have been. They include Abby Little, Aditya T. Wresniyandaka, Andrew C. Galbus, Bill Demory, Brendan McCauley, Brian LeTourneau, Cara Tuttle, Chris Bell, Christopher Thompson, Daniel A. Underwood, David Herskowitz, Erich Renner, Evan Donaldson, Frank Gallant, Fred Foldvary, Gail Hoyt, Glen Waddell, James Craven, James DeVault, Jane Paluda, Jennifer Braun, Ji-Hyun Tak, Jill Stoffers, Jim Swaney, Joan McAvoy, John Peters, Karin Sable, Kevin Beck, Larry Ash, Mary King, Matthew Ramsey, Mike Spolum, Nathalie Sweet, Ozkan Ozfidan, Patrick Crowley, Paul Wonnacott, Perry Mehrling, Peter M. Lichtenstein, Phil Shannon, Rasheed Al-Hmoud, Ric Holt, Richard V. Adkisson, Rozi Theohari, S. Scanlon Romer, Sharon Harrison, Stan Smith, Suren Badral, and Trevor Murray. I would also like to thank the many other economists who helped me along the way with a suggestion at a conference or via e-mail.

Special thanks to our supplements authors. Jenifer Gamber guided the ancillary team of Tom Adams, Sacramento City College; Douglas Copeland, Johnson County Community College; Kit Taylor, Bellevue Community College; Gail Hoyt, University of Kentucky; James DeVault, Lafayette College; Susan Dadres, Southern Methodist University; Patrick O'Neill, University of North Dakota; Gerald Nelson, University of Illinois; Anthony Zambelli, Cuyameca College; Harry Landreth, Centre College; Sunder Ramaswamy, Middlebury College; and Kailash Khandke, Furman University. They did a great job.

There is another group of people who helped at various stages. These include Stephen Pecsok and David Horlacher, close friends who read the manuscript and offered many useful suggestions; and Peter Rosenberg, Eli Sugarman, Kaia Laursen, and Kevin Coll, who helped with the

proofreading. Helen Reiff also proofread, prepared the glossary, and provided valuable research assistance. A special thank-you goes to Jenifer Gamber, whose role in the book cannot be overestimated. She helped me clarify its vision by providing research, critiquing expositions and often improving them, guiding the ancillaries, and being a good friend. She has an amazing set of skills and I thank her for using them to improve the book.

Next there is the entire McGraw-Hill team: Paul Shensa, the executive editor; Gary Burke, the publisher; Marilea Fried and Tom Thompson, the developmental editors; Jean Lou Hess, the senior project manager; Rich

DeVitto, the senior production supervisor; book designers Amy Feldman and Andrew Ogun; Louis Swaim and Becky Szura, the supplements coordinators; Janet Renard, the copyeditor; Roberta Brent, the proofreader; Marty Quinn, the marketing manager; David Littlehale, the national sales manager; and the sales representatives who have been so supportive and helpful. They did a great job and I thank them all.

Finally, I want to thank Pat, my wife, and my sons, Kasey and Zach, for helping me keep my work in perspective, and for providing a loving environment in which to work.



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