

McConnell
Brue

14

MICROECONOMICS

M I C R O E C O N O M I C S

Principles, Problems, and Policies

Fourteenth Edition

CAMPBELL R. McCONNELL

PROFESSOR OF ECONOMICS, EMERITUS
UNIVERSITY OF NEBRASKA

STANLEY L. BRUE

PROFESSOR OF ECONOMICS
PACIFIC LUTHERAN UNIVERSITY

 **Irwin
McGraw-Hill**

Boston Burr Ridge, IL Dubuque, IA Madison, WI New York San Francisco St. Louis
Bangkok Bogotá Caracas Lisbon London Madrid
Mexico City Milan New Delhi Seoul Singapore Sydney Taipei Toronto

• • • • •
**To Mem
and to Terri and
Craig**
• • • • •

Irwin/McGraw-Hill

A Division of The McGraw-Hill Companies

Microeconomics Principles, Problems, and Policies

Copyright © 1999, 1996, 1993, 1990 by The McGraw-Hill Companies, Inc. All rights reserved. Portions of this text have been taken from *Economics*, Fourteenth Edition. Copyright © 1999 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a data base or retrieval system, without the prior written permission of the publisher.

This book is printed on acid-free paper.

2 3 4 5 6 7 8 9 0 VNH VNH 9 4 3 2 1 0 9

ISBN 0-07-289840-2

ISBN 0-07-366216-X (*Wall Street Journal* edition)

Editorial director: Michael Junior
Publisher: Gary Burke
Sponsoring editor: Lucille Sutton
Developmental editor: Marilea Fried
Marketing manager: Nelson Black
Project manager: Eva Marie Strock
Production supervisors: Diane Renda and Pam Augspurger

Supplements coordinator: Louis Swaim
Designer: Amanda Kavenagh
Cover designer: Francis Owens
Editorial assistant: Lee Hertel
Compositor: York Graphic Services, Inc.
Typeface: Janson Text
Printer: Von Hoffmann Press, Inc.

Last Word illustrations and back cover illustration by Jacques Cournoyer

Library of Congress Cataloging-in-Publication Data

McConnell, Campbell R.

Microeconomics: principles, problems, and policies / Campbell R.

McConnell, Stanley L. Brue. — 14th ed.

p. cm.

Includes index.

ISBN 0-07-289840-2

1. Microeconomics. I. Brue, Stanley L., 1945- . II. Title.

HB172.M3925 1998

338.5—dc21

98-7747

CIP

ABOUT THE AUTHORS

Campbell R. McConnell earned his Ph.D. from the University of Iowa after receiving degrees from Cornell College and the University of Illinois. He taught at the University of Nebraska–Lincoln from 1953 until his retirement in 1990. He is also coauthor of *Contemporary Labor Economics*, 5th ed. (McGraw-Hill) and has edited readers for the principles and labor economics courses. He is a recipient of both the University of Nebraska Distinguished Teaching Award and the James A. Lake Academic Freedom Award and is past president of the Midwest Economics Association. Professor McConnell was awarded an honorary Doctor of Laws degree from Cornell College in 1973 and received its Distinguished Achievement Award in 1994. His primary areas of interest are labor economics and economic education. He has an extensive collection of jazz recordings and enjoys reading jazz history.

Stanley L. Brue did his undergraduate work at Augustana College (SD) and received his Ph.D. from the University of Nebraska–Lincoln. He teaches at Pacific Lutheran University, where he has been honored as recipient of the Burlington Northern Faculty Achievement Award. He has also received the national Leavey Award for excellence in economic education. Professor Brue is past president and a current member of the International Executive Board of Omicron Delta Epsilon International Economics Honorary. He is coauthor of *Economic Scenes*, 5th ed. (Prentice-Hall) and *Contemporary Labor Economics*, 5th ed. (McGraw-Hill) and author of *The Evolution of Economic Thought*, 5th ed. (HB/Dryden). For relaxation, he enjoys boating on Puget Sound and skiing trips with his family.

P R E F A C E

Welcome to the fourteenth edition of *Microeconomics* (and its companion editions of *Economics* and *Macroeconomics*), the nation's best-selling economics texts. About 4.5 million U.S. students have used this book. It has been adapted into Canadian, Australian, Italian, and Russian editions and translated into French, Spanish, and several other languages.

Economic turmoil in Southeast Asia, dynamic new technologies, an overhaul of U.S. farm and welfare policies, swings in exchange rates, capitalism in Russia—what an interesting time to teach and learn economics! Clearly, those who understand economic principles will have a distinct advantage over others in making sense of the economy and successfully participating in it.

WHAT'S NEW?

We thoroughly revised, polished, and updated this edition. (Using a software analogy, this is version 14.0, not 13.1 or 13.2.) The comments of over 100 reviewers motivated many of the changes and helped us create a text full of energy and innovation.

New or Highly Revised Chapters

One chapter is totally new to this edition and another contains much new content.

- **Chapter 13: Technology, R&D, and Efficiency.** This entirely new chapter provides an explicit and cohesive discussion of the microeconomics of technological advance. We think that topics such as invention, innovation, R&D decision making, and creative destruction are exciting and simply too important to ignore or set into sidebars, so we devote an entire chapter to them. [To make room for this new content, we consolidated the discussions of monopolistic competition and oligopoly into a single chapter (Chapter 12).]
- **Chapter 26: Transition Economies: Russia and China.** We added a discussion of China to the previous edition's material on Russia. We look briefly at

Marxian ideology, and the institutions, goals, and major problems of central planning, and then turn to the collapse of the Soviet economy, the elements of the Russian reform, and contemporary outcomes. Finally, we discuss the main features of market reform in China, including rapid economic growth and remaining difficulties.

New Pedagogy

- **Quick Quizzes.** We added 4 multiple-choice questions as Quick Quizzes to each of the 16 Key Graphs. Each quiz relates to the content of the specific Key Graph and is written in the same style and at the same level of difficulty as the test bank questions. The correct answers are provided upside down so students can instantly measure their understanding of key ideas.
- **Internet Questions.** Each chapter contains two Web-Based Questions which require students to access specified Internet addresses. These questions help students apply specific economic concepts and introduce them to relevant *Microeconomics* Internet sites.

Added Content on Women, Minorities, and Discrimination

In text and vignettes, this edition includes new information on women, minorities, and discrimination. For example, in Chapter 2 we added a Last Word on the rise of women's participation in the labor force. A new Last Word in Chapter 15 deals with the impact of occupational licensing on African-style hairbraiders. Chapter 23 develops the taste for discrimination model, the idea of statistical discrimination, and the theory of occupational crowding. The new Last Word in Chapter 23 looks at the effects of "blind" auditions on the gender composition of major symphony orchestras.

Greater Emphasis on the Economic Perspective

Newly organized Chapter 1 now begins with a discussion of scarcity and choice, rational behavior, and

marginal analysis. In Chapter 2 we use the ideas of marginal benefits and marginal costs to determine the optimal position on the production possibilities curve. We continue to reinforce the economic perspective in the remainder of the book in a number of discussions, including those on investment decisions, sunk costs, rational R&D decisions, and immigration policy.

Added Directness, Reduced Formalism, Extra Human Interest Material

Our line-by-line editing adds directness and reduces formalism, but we were careful to *not* reduce the thoroughness of our explanations. Where needed, the “extra sentence of explanation” remains a distinguishing characteristic of *Microeconomics*. Students will especially enjoy our new Last Words in Chapter 4, Pink Flamingos and “Dollar Votes”; Chapter 13, On the Path to the Personal Computer and Internet; and Chapter 15, Of African-Style Hairbraiders and Stodgy Economists. All 26 Last Words present interesting applications with attractive modern art.

Other New Topics and Revised Discussions

Along with the changes just discussed, there are many other revisions. Here are just a few examples.

- **Part 1.** *Chapter 1:* Figure 1-1 and its discussion revised; new, livelier examples. *Chapter 2:* Improved discussion of the economic rationale for increasing costs; new applications (land-use controversies, devastation from war, and emerging technologies); consolidated discussion of economic systems. *Chapter 3:* New examples: increased demand for sports-utility vehicles; improved fuel efficiency of aircraft engines; increased demand for salsa; buyout of haddock fishing boats; the decline in the price of pink salmon. *Chapter 4:* Improved discussion of consumer sovereignty; improvements to Table 4-4 on least-cost production; new Global Perspective on the Index of Economic Freedom. *Chapter 5:* New explicit definitions of stocks and bonds; new discussion of the principal-agent problem; new Global Perspective on government employment as a percentage of total employment for various countries. *Chapter 6:* Improved explanation of the most-favored-nation clause.
- **Part 2.** *Chapter 7:* Revised discussion (based on new research) of the price elasticity of illegal drugs.

Chapter 8: Figure 8-1 is now a Key Graph; new Figure 8-2 shows the demand curve derived from a change in product price in the utility-maximizing model. *Chapter 9:* Explicit definitions of marginal, average, and total product now precede the discussion of diminishing returns; substantially revised Table 9-1 and Figure 9-2; new example of scale economies (“extraordinarily large stamping machine”). *Chapter 10:* Figure 10-2 now includes the firm’s total profit curve; the graphical discussion of the TR-TC approach is confined to profit maximization; section on qualifications of the pure competition model is consolidated. *Chapter 11:* New Table 11-2 lays out the steps for determining profit-maximizing output, price, and profit (if any) in pure monopoly; new graphical comparison of outcomes under pure monopoly and pure competition (Figure 11-6); “discount coupons” added as an example of price discrimination. *Chapter 12:* The discussion of monopolistic competition and oligopoly is now combined into a single chapter; kinked demand model as a Key Graph added; several new examples. *Chapter 13:* New chapter on technology, R&D, and efficiency.

- **Part 3.** *Chapter 14:* Table 14-3 summarizes the differences between substitute resources and complementary resources; updated labor demand examples; revised discussion of least-cost and profit-maximizing combinations of resources. *Chapter 15:* Discussions of real wage stagnation and pitfalls of pay-for-performance plans; rewritten section on labor market imperfections. *Chapter 16:* The loanable funds model is now used in this micro chapter in both the micro split and the hardbound book.
- **Part 4.** *Chapter 17:* New hypothetical example (enterprising artist and his public art) to highlight the free-rider problem and public goods characteristics; new discussion of the “tragedy of the commons.” *Chapter 18:* Expanded discussion of pork-barrel politics and bureaucratic inefficiency; new material on VAT and flat tax proposals, including criticisms.
- **Part 5.** *Chapter 19:* Discussion of Microsoft and tying contracts; new examples of price-fixing cases; updated and reorganized section on industrial policy. *Chapter 20:* New discussion of the reform of farm policy (the end of price supports for grain commodities). *Chapter 21:* Updated data on income mobility; revised discussions on causes of increasing inequality; new section on welfare reform. *Chapter 22:* Expanded dis-

discussion of managed health care (preferred provider organizations and health maintenance organizations). *Chapter 23*: Consolidated and revised discussion of unionism; much new content on discrimination, including discussion of the affirmative action debate; updated discussion of immigration.

- *Part 6. Chapter 24*: Chapter on international trade tightened. *Chapter 25*: Improved explanation of the balance of payments; major consolidation of the discussion of past exchange-rate systems and the section on U.S. trade deficits. *Chapter 26*: Extensively revised chapter now includes discussion of the transition to markets in China as well as in Russia.

New Last Words

Several Last Words are new; others have been revised and updated. All 26 Last Words are accompanied by new art. We continue to place these boxes at the ends of chapters, where they are less likely to interrupt readers' concentration.

The new Last Word topics are women and production possibilities (Chapter 2); consumer sovereignty, dollar votes, and plastic pink flamingos (Chapter 4); maximization of consumer surplus in purely competition (Chapter 10); a brief history of the personal computer and Internet (Chapter 13); the substitution of ATMs for bank tellers (Chapter 14); the impact of occupational licensing on African-style hairbraiders (Chapter 15); social security reform (Chapter 21); the shortage of human organs for transplant (Chapter 22); the impact of blind auditions on the employment of women in major orchestras (Chapter 23); enterprise transition to capitalism in Russia (Chapter 26).

FUNDAMENTAL GOALS

Although the fourteenth edition only modestly resembles the first, our intention remains the same: to introduce the beginning economics students to principles essential to understanding the basic economizing problem, specific economic issues, and the policy alternatives available for dealing with them. Two fortunate by-products of this objective are an ability to reason accurately and dispassionately about economic matters and a lasting interest in economics. As always, we present the principles and problems of economics

in a straightforward, logical fashion. *We continue to stress clarity of presentation, step-by-step organization, and consistency of level of analysis.*

DISTINGUISHING FEATURES

- *Comprehensive Explanations at an Appropriate Level.* *Microeconomics* is comprehensive, analytical, and challenging yet accessible to a wide range of students. Its thoroughness and accessibility enable instructors to select topics for special classroom emphasis with confidence that students can read and comprehend independently other assigned material in the book.

- *Comprehensive Definition of Economics.* Because students must first understand the fundamentals, we devote nearly all of Chapter 2 to a careful statement and development of the economizing problem and an exploration of its implications. This foundation will help put into proper perspective essential economic concepts.

- *Fundamentals of the Market System.* Economies throughout the world are making difficult transitions from planning to markets. Our detailed description of the institutions and operation of the *market system* in Chapter 4 is now more relevant than before. We pay particular attention to property rights, freedom of enterprise and choice, competition, and the role of profits because these concepts are poorly understood by beginning students.

- *Early Integration of International Economics.* We give the principles and institutions of the global economy early treatment. Chapter 6 examines the growth of world trade, the major participants in world trade, specialization and comparative advantage, the foreign exchange market, tariffs and subsidies, and various trade agreements. This strong introduction to international economics permits "globalization" of later microeconomic and macroeconomic discussions.

- *Early and Extensive Treatment of Government.* Government is an integral component of modern capitalism. This book introduces the economic functions of government early and systematically treats them in Chapter 5. Chapter 17 examines government and market failure in further detail, and Chapter 18 looks at salient facets of public choice theory and public finance. This text includes both problem- and policy-oriented chapters.

- **Emphasis on the Theory of the Firm.** We give much attention to microeconomics in general and to the theory of the firm in particular, for two reasons. First, the concepts of microeconomics are difficult for most beginning students; too-brief expositions usually compound these difficulties by raising more questions than they answer. Second, we wanted to couple analysis of the various market structures with a discussion of the impact of each market arrangement on price, output levels, resource allocation, and the rate of technological advance.
- **Emphasis on Economic Issues.** For many students, Part 4 (micro-oriented problems) is where the action is. We sought to guide that action along logical lines through the application of appropriate analytical tools. In this part we favor inclusiveness; instructors can effectively omit whichever chapters they choose.

ORGANIZATION AND CONTENT

Microeconomics reflects the challenge specific topics and concepts will likely pose for average students. For instance, the theory of the firm is carefully treated. Here, simplicity is correlated with comprehensiveness, not brevity.

Our experience suggests that in treating each basic topic—consumer behavior theory, theory of the firm, and international economics—it is desirable to couple analysis with policy. Generally, we use a three-step development of analytical tools: (1) verbal descriptions and illustrations, (2) numerical examples, and (3) graphical presentation based on these numerical illustrations.

All these considerations caused us to organize the book into six parts: Part 1: An Introduction to Economics and the Economy; Part 2: Microeconomics of Product Markets; Part 3: Microeconomics of Resource Markets; Part 4: Microeconomics of Government; Part 5: Microeconomic Issues and Policy; and Part 6: International Economics and the World Economy.

ORGANIZATIONAL ALTERNATIVES

Although instructors generally agree on the content of the principles of microeconomics course, they often differ as how to arrange the material; *Microeconomics* provides considerable organizational flexibility.

Previous users tell us they often substantially rearrange chapters with little sacrifice of continuity.

Some instructors will prefer to intersperse the microeconomics of Parts 2 and 3 with the problems chapters of Part 5. Chapter 20 on agriculture may follow Chapter 10 on pure competition; Chapter 19 on antitrust, regulation, and industrial policy may follow Chapters 11 to 13 on imperfect competition models and technological advance. Chapter 23 on labor market issues (unions, discrimination, and immigration) may follow Chapter 15 on wages; and Chapter 21 on income inequality may follow Chapters 15 and 16 on distributive shares of national income.

PEDAGOGICAL AIDS

Microeconomics has always been student-oriented. The To the Student statement at the beginning of Part 1 details the many pedagogical aids. The fourteenth edition is also accompanied by a variety of high-quality supplements.

The Supplements

- **Study Guide.** William Walstad—one of the world's foremost experts on economic education—prepared the fourteenth edition of the *Study Guide*, which many students find indispensable. Each chapter has an introductory statement, a checklist of behavioral objectives, an outline, a list of important terms, fill-in questions, problems and projects, objective questions, and discussion questions. Answers to *Microeconomics'* end-of-chapter Key Questions appear at the end of the *Study Guide*, along with the text's Glossary.

The *Study Guide*, which is available in a separate micro edition, is a superb “portable tutor” for the principles student.

- **Instructor's Resource Manual.** Professor Arienne Turner of Fullerton College revised and updated the *Instructor's Resource Manual*. It comprises chapter summaries, listings of “what's new” in each chapter, new teaching tips and suggestions, learning objectives, chapter outlines, data and visual aid sources with suggestions for classroom use, and questions and problems. Answers to the text's end-of-chapter Key Questions are also included.

The *Manual* is again available for use with IBM-PC compatibles and MacIntosh computers. The PC version is also available in CD-ROM format. Users can print out portions of the *Manual's* contents, complete with their own additions and alterations, for use as student handouts or in whatever ways they might wish.

- **Three Test Banks.** Two test banks of objective, predominately multiple-choice questions and a third test bank of short-answer essay questions and problems supplement this edition of *Microeconomics*.
- **Test Bank I.** This test bank now includes more than 5200 questions, most all written by the text authors.
- **Test Bank II.** Written by William Walstad, this test bank contains more than 5000 questions. All Test Bank II questions are now categorized according to level of difficulty: easy, moderate, or difficult.
- **Test Bank III.** Also prepared by William Walstad, Test Bank III contains "constructive response" testing to evaluate student understanding in a manner different from conventional multiple-choice and true-false questions. Suggested answers to the essay and problem questions are included.

For all test items in Test Banks I and II, the nature of each question is identified (for example, G = graphical; C = complex analysis; etc.), as are the page numbers of the text pages that are the basis for each question. Also, each chapter in Test Banks I and II includes an outline or table of contents that groups questions by topics. In all, more than 10,000 questions of equality give instructors maximum testing flexibility while assuring the fullest possible text correlation.

Additional Supplements

- **Computerized Testing.** Test Banks I, II, and III are available in computerized versions, both for IBM-PC compatibles and MacIntosh computers. These systems generate multiple tests, scrambled tests, and high-quality graphs. Developed by the Brownstone Research group, this software meets the needs of the widest spectrum of computer users.
- **Color Transparencies (Figures and Tables).** We offer over 180 full-color transparencies for overhead projectors. They include most figures appearing in *Microeconomics* and are available on request to adopters.

- **PowerPoint Presentation.** Norman Hollingsworth of DeKalb College once again created our PowerPoint Presentation slides, which consist of over 1000 audio-enhanced images.

- **Student Software.** *DiscoverEcon* is available for *Microeconomics*. This menu-driven software, which was developed by Gerald Nelson at the University of Illinois, gives students a complete tutorial linked to the text. Each chapter features two essay questions and a multiple-choice test. Whenever relevant, interactive graphing problems let students observe how the economic picture is altered when they select different data. Links to the Glossary and text references clarify key concepts.

Two additional interactive tutorials are available with this edition: *Microeconomics Interactive CD-ROM* and *WinEcon*.

Developed by Charles Link and Jeffrey Miller at the University of Delaware, the *Microeconomics Interactive CD-ROM* gives students a rich, easy-to-use menu covering core topics in introductory economics with an audio component that makes it an excellent tool for reviewing basic concepts. The tutorial has a real-world focus: Newspaper and magazine articles highlight economic concepts, and interactive videos allow students to "interview" business leaders.

WinEcon is an interactive software package offering over 75 hours of tutorial material. It includes self-assessment questions and exams, economic databases, and an economic glossary and references to leading economic texts. It is the first computer-based learning package to cover the entire first-year economics syllabus. *WinEcon* combines two products in one: teaching software and student tools, and *WinEcon* Lecturer with tests, exams, course management, and customization program. It was developed at the University of Bristol with the help of the Teaching and Learning Technology Programme Economics Consortium (TLTP), a group of eight United Kingdom university economics departments.

- **Website for Students and Instructors.** Our dynamic text Website can be found at <http://www.mhhe.com/economics/mcconnell>. At the Website, students can find learning support, including answers to the text's Key Questions.
- **MHLA.** McGraw-Hill Learning Architecture is our on-line student tutorial and course-management program, which includes materials directly linked to

McConnell and Brue, *Microeconomics*, fourteenth edition.

ACKNOWLEDGMENTS

We give special thanks to James Reese at the University of South Carolina at Spartansburg, who wrote the 52 end-of-chapter Internet Exercises.

Our colleagues at the University of Nebraska-Lincoln and Pacific Lutheran University generously shared knowledge of their specialties with us and provided encouragement.

As indicated, the fourteenth edition benefited from a number of perceptive reviews. In both quantity and quality, the reviewers were a rich source of suggestions for this revision. These contributors are listed at the end of this Preface.

Professor Thomas Barbiero of Ryerson Polytechnical Institute provided helpful ideas in his role as coauthor of the Canadian edition of *Microeconomics*. Also, we greatly appreciate the sug-

gestions for improvement provided by Professor Walstad, the author of the *Study Guide*. Thanks also to Robert Jensen, who proofread the entire manuscript (twice), and William Harris of the University of Delaware, who supplied a number of new questions for Test Bank I.

We are greatly indebted to the many professionals at McGraw-Hill—in particular, Gary Burke, Lucille Sutton, Marilea Fried, Lee Hertel, Nelson Black, Marty Quinn, Miller Murray, Eve Strock, Francis Owens, Diane Renda, and Pam Augspurger—for their publishing expertise.

We thank Ed Millman and Susan Gottfried for their thorough and sensitive editing, Amanda Kavanagh for her creative design, and Jacques Cournoyer for his vivid Last Word illustrations.

We also strongly acknowledge the newly integrated Irwin/McGraw-Hill sales staff, who greeted this edition with wholehearted enthusiasm.

Campbell R. McConnell
Stanley L. Brue

CONTRIBUTORS

REVIEWERS

David Allen, University of Alabama–Huntsville
Kevin Baird, Montgomery County Community College
Joe A. Bell, Southwest Missouri State University
Dixie Blackley, LeMoyne College
John Boffoe-Bonnie, Pennsylvania State University–Media
Carol Condon, Kean College of New Jersey
Betsy Crowell, University of Michigan–Dearborn
Norman Cure, Macomb Community College
Chris Duelfer, Cedar Crest College
Robert Eggleston, Shippensburg University
Ron Elkins, Central Washington University
Arthur Friedberg, Mohawk Valley Community College
Jeff D. Gibbs, Abraham Baldwin College
Sadie Gregory, Virginia State University
Medhi Haririan, Bloomsburg University of Pennsylvania
Paul Harris, Camden County College
Gus Herring, Brookhaven College
Calvin Hoerneman, Delta College
John Hill, Northeastern State University
Katherine M. Huger, Charleston Southern University
Mashid Jalilvand, University of Wisconsin–Stout
Zeinholm Kabis, St. Ambrose University
James Kahiga, DeKalb College
Demetri Kantarelis, Assumption College
Mehmet Karaaslan, Alfred University
Elizabeth Kelly, University of Wisconsin–Madison
Vani Kotcherlokota, University of Nebraska–Kearny
Ross LaRoe, Denison University
Mark S. LeClair, Fairfield University
Judy Lee, Leeward Community College
Jon G. Lindgren, North Dakota State University
Patrick Litzinger, Robert Morris College
Elizabeth J. Lott, Pace University
William C. O'Connor, Western Montana College
Martha L. Olney, University of California–Berkeley

Lucjan Orłowski, Sacred Heart University
Joseph Prinzing, Lynchburg College
Janet M. Rives, University of Northern Iowa
Henry Ryder, Gloucester County Community College
John Saussey, Harrisburg Area Community College
Charlene Schick, Cypress College
Teresa Sherrouse, Augusta College
Dorothy Siden, Salem State College
Victor Ukpolo, Austin Peay State University
Janet West, University of Nebraska–Omaha
Fred E. Williams, Montreat College
Study Guide Student Reviewers from Anne Arundel Community College, Arnold, Maryland:
Erica Beisler
John Botwright
Pam Newman
Chris Rzepkowski
Laureen Thomas
Kathy Van Liew
and their instructor, Professor Raymond F. Turner

FOCUS GROUP PARTICIPANTS

Vinod Agarwal, Old Dominion University
Hamid Azari, Alabama State University
Dan Berkowitz, University of Pittsburgh
Larry Biacci, Pennsylvania State University–Hazelton
Michael Brandl, West Texas A & M University
Christopher Brown, Arkansas State University–Mountain Home
Lindsey Calkins, John Carroll University
James Cobbe, Florida State University
David Connell, University of Nebraska at Omaha
Arifeen M. Daneshyan, Kutztown University
Allen Dickes, Washburn University
Michael Gootzeit, University of Memphis
Linda Harris Dobkins, Emory and Henry College
Robert Ebert, Baldwin-Wallace College
Jill Herndon, Hamline University
Julie Hotchkiss, Georgia State University

Christopher Lingle, Case Western Reserve University
 Darryl Lowry, Roanoke College
 Larry Mack, North Highland Community College
 Bart Macomber, Highland Community College
 Richard McGrath, College of William and Mary
 Dennis O'Toole, Virginia Commonwealth University
 Walter Park, The American University
 C. S. Pyun, University of Memphis
 Charles Roberts, Western Kentucky University
 Steve Rockland, San Diego State University
 Julie Ryan, Beaver College
 Ken Scalet, York College
 Chuck Slusher, University of North Carolina—Chapel Hill
 Gerald Stollman, Oakland Community College
 Robert Tansky, St. Clair County Community College
 Roy Townsend, Greenville Technical College
 Arienne Turner, Fullerton College
 David Vernon, Lubbock Christian University
 Eugene Williams, McMurry University
 Hamid Zangeneh, Widener University

QUESTIONNAIRE RESPONDENTS

Emmanuel Asigbee, Kirkwood Community College
 Jan E. Christopher, Delaware State University
 Betty Chu, San Jose State University
 John Connelly, Corning Community College
 Larry DeBrock, University of Illinois
 Floyd Allen DeCook, Broward Community College

John W. Dorsey, University of Maryland at College Park
 Rodney D. Green, Howard University
 Barnali Gupta, Miami University
 Ruby Hargrove, St. Augustine's College
 Michael N. Hayes, Radford University
 Mark L. Huston, San Diego Mesa College
 Patti J. Impink, Macon College
 Mark Karscig, Central Missouri State University
 Erwin L. Kelly, Jr., California State University—Sacramento
 Philip J. Lane, Fairfield University
 John R. Moroney, Texas A&M University
 Dennis L. Nelson, University of Minnesota—Duluth
 Mehdi Pousti, Kansas State University
 David L. Priddy, Piedmont Virginia Community College
 Michael Reclam, Virginia Military Institute
 David Roe, Furman University
 Richard Rosenberg, Pennsylvania State University
 Nancy Short, Chandler-Gilbert Community College
 Mary Huff Stevenson, University of Massachusetts—Boston
 Robert Vowels, Tennessee State University
 Robert B. Wagner, Houston Community College
 Mike M. Williams, Bethune Cookman/Daytona Beach Community College
 Edgar W. Wood, University of Mississippi
 Wendy V. Wysocki, Monroe County Community College
 Janice Yee, Wartburg College
 Armand Zottola, Central Connecticut State University

1

P A R T O N E

An
Introduction to
Economics and
the Economy

TO THE STUDENT

Economics is largely concerned with efficiency—accomplishing goals using the best methods. Several features of this book and its ancillaries are designed to improve your efficiency in learning economics (and therefore your course grade):

- **Appendix on graphs** Being comfortable with graphical analysis and a few quantitative concepts is a big advantage in understanding principles of economics. The appendix to Chapter 1 reviews graphing, line slopes, and linear equations. Be sure to not skip it.
- **Introductions** The introductory paragraphs of each chapter place the chapter in the proper context, state its main objectives, and tell you how it is organized. These introductions lead you into the economic analysis.
- **Terminology** A significant portion of any introductory course is terminology. Key terms are set in **boldface type**, listed at the end of each chapter, and defined in the glossary at the end of the book.
- **Reviews** Important things should be said more than once. Each chapter contains a summary and two or three Quick Reviews. These reviews will help you focus on essential ideas and study for exams. If any review statement seems unclear, you should reread the corresponding section of the text.
- **Key Graphs** Graphs that have special relevance are labeled Key Graphs, and each includes a multiple-choice Quick Quiz. Your instructor may or may not emphasize all these figures, but you should pay special attention to those that are discussed in class; you can be certain that there will be exam questions on them.
- **Figure legends** The legends accompanying the figures in this book are self-contained analyses of the figures. Study these legends carefully—they are quick synopses of important ideas.
- **Globalization** The economics of individual nations are becoming part of an overall global economy. To gain appreciation of this wider economic environment, be sure to take a look at the Global Perspectives, which compare the United States to other selected nations.
- **Last Words** Each chapter concludes with a Last Word minireading. While it is tempting to ignore these sections, don't. Some of them are revealing applications of economic concepts; others are short case studies. A few present views which contrast with mainstream thinking; and most are fun to read. All will broaden your grasp of economics.
- **Questions** A comprehensive list of questions is located at the end of each chapter. The old cliché that you “learn by doing” is very relevant to economics. Answering these questions will enhance your understanding. Several of the questions are designated as Key Questions and are answered in the *Study Guide* and the *Instructor's Resource Manual*, and they can also be found at our Website, <http://www.mhhe.com/economics/mcconnell>. You can turn to these particular questions when they are cited in each chapter, or later, after you have read the full chapter.
- **Study Guide** We enthusiastically recommend the *Study Guide* accompanying this text. This “portable tutor” contains not only a broad sampling of various kinds of questions but a host of useful learning aids.

You will find in Chapter 1 that economics involves a special way of thinking—a unique approach to analyzing problems. The overriding goal of this book is to help you acquire that skill. If our cooperative efforts—yours, ours, and your instructor's—are successful, you will be able to comprehend a whole range of economic, social, and political problems that otherwise would have remained murky and elusive.

The Nature and Method of Economics

Human beings, those unfortunate creatures, are plagued with wants. We want, among other things, love, social recognition, and the material necessities and comforts of life. Our efforts to meet our material wants, that is, to improve our well-being or “make a living,” are the concern of economics.

Biologically, we need only air, water, food, clothing, and shelter. But, in contemporary society, we also seek the many goods and services associated with a comfortable or affluent standard of living. Fortunately, society is blessed with productive resources—labor and managerial talent, tools and machinery, land and mineral deposits—which are used to produce goods and services. This production satisfies many of our material wants and occurs through the organizational mechanism called the *economic system* or, more simply, *the economy*.

The blunt reality, however, is that the total of all our material wants is many times greater than the productive capacity of our limited resources. Thus, the complete satisfaction of material wants is impossible. This unyielding reality provides our definition of **economics**: *the social science concerned with the efficient use of limited or scarce resources to achieve maximum satisfaction of human material wants*.

Although it may not be evident, most of the headline-grabbing issues of our time—inflation, unemployment, health care, social security, budget deficits, discrimination, tax reform, poverty and inequality, pollution, and government regulation and deregulation of business—are rooted in the one challenge of using scarce resources efficiently.

In this first chapter, however, we will not plunge into problems and issues; instead, we will discuss some important preliminaries. Specifically, we first look at the economic perspective—how economists think about problems. Next, we state some of the benefits of studying economics. Then we consider the specific methods economists use to examine economic behavior and the economy, distinguishing between macroeconomics and microeconomics. Finally, we examine the problems, limitations, and pitfalls that hinder sound economic reasoning.

THE ECONOMIC PERSPECTIVE

Economists view things through a unique perspective. This **economic perspective** or *economic way of thinking* has several critical and closely interrelated features.

Scarcity and Choice

From our definition of economics, it is easy to see why economists view the world through the lens of scarcity. Since human and property resources are scarce (limited), it follows that the goods and services we produce must also be scarce. Scarcity limits our options and necessitates that we make choices. Because we “can’t have it all,” we must decide what we will have.

At the core of economics is the idea that “there is no free lunch.” You may get treated to lunch, making it “free” to you, but there is a cost to someone—ultimately to society. Scarce inputs of land, equipment, farm labor, the labor of cooks and waiters, and managerial talent are required. Because these resources could be used in alternative production activities, they and the other goods and services they could have produced are sacrificed in making the “free” lunch available. Economists call these sacrifices *opportunity costs*.

Rational Behavior

Economics is grounded on the assumption of “rational self-interest.” That is, individuals make rational decisions to achieve the greatest satisfaction or the maximum fulfillment of their goals. For instance, they spend their incomes to get the greatest benefit from the goods and services they can afford.

Rational behavior means that different people will make different choices because their preferences, circumstances, and available information differ. You may have decided that it is in your best interest to attend college before entering the full-time labor force, while a high school classmate has chosen to forgo additional schooling and go to work. Why the different choices? Your academic abilities, along with your family’s income, may be greater than your classmate’s. You may also know that college-educated workers have better job opportunities and lower unemployment rates than less educated workers. Hence, you opted for college, while your former classmate—the one with less academic ability, less money, and less information—chose a job. Both choices reflect the pursuit of self-interest and are rational, but they are based on differing circumstances and information.

Of course, rational decisions may change as circumstances change. Suppose the Federal government decides it is in the national interest to increase the supply of college-educated workers. It might offer 2 years of “free” community college to all low-income students. Under these new conditions, your high school classmate might now opt for college rather than a job.

It is important to remember that rational self-interest is not the same as selfishness. People make *personal sacrifices* to help family members or friends, and they contribute to charities because they derive pleasure from doing so. Parents help pay for their children’s education for the same reason. These self-interested, but unselfish, acts help maximize the givers’ satisfaction as much as any personal purchase of goods or services.

Marginalism: Benefits and Costs

The economic perspective focuses largely on **marginal analysis**—comparisons of marginal benefits and marginal costs. (Used this way, “marginal” means “extra,” “additional,” or “a change in.”) Most choices or decisions involve changes in the status quo. Should you go to school for another year or not? Should you spend more or less money on compact discs each month? Similarly, businesses regularly must decide whether to employ more or fewer workers or to produce more or less output.

Each option involves marginal benefits and, because of scarcity, marginal costs. In making choices rationally, the decision maker must compare these two amounts. Example: Your time is scarce. What will you do with 2 “free” hours on a Saturday afternoon? You could watch Gigantic State University’s Fighting Aardvarks play basketball on television. The *marginal benefit* to you would be the pleasure of seeing the game. The *marginal cost* would be the benefit from the other things you have to sacrifice to watch the game, including perhaps studying, jogging, or taking a nap. If the marginal benefit exceeds the marginal cost, then it is rational to watch the game. But if you determine that the marginal cost of watching the game is greater than the marginal benefit, then you should select one of the other options.

On the national level, government regularly makes decisions involving marginal benefits and marginal costs. More spending on health care may mean less spending on libraries, aid to the poor, or military security. In a world of scarcity, the decision to obtain

the marginal benefit associated with some specific option always includes the marginal cost of forgoing something else. Again, there is no free lunch.

One somewhat surprising implication of decisions based on marginal analysis is that there *can* be too much of a good thing. Although certain goods and services seem inherently desirable—education, health care, a clean environment—we can in fact have too much of them. “Too much” occurs when we keep producing them beyond the point where their marginal cost (the value of the forgone options) equals their marginal benefit.

If we choose to produce so much health care that its marginal cost to society exceeds its marginal benefit, we are providing “too much” of it even though we all agree that health care is a good thing. When the marginal costs of health care exceed the marginal benefits, we are sacrificing alternative products (for example, education and pollution reduction) which are more valuable than health care *at the margin*—the place where we consider the very last units of each. **(Key Question 1)**

This chapter’s Last Word provides an everyday application of the economic perspective.

WHY STUDY ECONOMICS?

Is studying economics worth your time and effort? More than half a century ago John Maynard Keynes (1883–1946), one of the most influential economists of this century, said:

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist.

Most of the ideologies of the modern world have been shaped by prominent economists of the past—Adam Smith, David Ricardo, John Stuart Mill, Karl Marx, and John Maynard Keynes. And current world leaders routinely solicit the advice and policy suggestions of today’s economists.

For example, the President of the United States benefits from the recommendations of his Council of Economic Advisers. The broad range of economic issues facing political leaders is suggested by the contents of the annual *Economic Report of the President*.

Areas covered typically include unemployment, inflation, economic growth, taxation, poverty, international trade, health care, pollution, discrimination, immigration, regulation, and education, among others.

Economics for Citizenship

A basic understanding of economics is essential if we are to be well-informed citizens. Most of today’s political problems have important economic aspects: How important is it that we balance the Federal budget? How can we make the social security retirement program financially secure? Why do we continue to have large international trade deficits? How can we best reduce pollution? What must we do to keep inflation in check? What can be done to boost U.S. productivity and economic growth? Are existing welfare programs effective and justifiable? Do we need to reform our tax system? How should we respond to growing market dominance by a few firms in some high-technology sectors of the economy?

As voters, we can influence the decisions of our elected officials in responding to such questions. But intelligence at the polls requires a basic working knowledge of economics. And a sound grasp of economics is even more helpful to the politicians themselves.

A survey by the National Center for Research in Economic Education suggests that economic illiteracy is widespread in the United States. The public, high school seniors, and college seniors show a broad lack of knowledge of the basic economics needed to understand economic events and changes in the national economy. When asked questions about fundamental economics, only 39 percent of the general public, 35 percent of high school seniors, and 51 percent of college seniors gave correct answers.

Professional and Personal Applications

Economics lays great stress on precise, systematic analysis. Thus, studying economics invariably helps students improve their analytical skills, which are in great demand in the workplace. Also, the study of economics helps us make sense of the everyday activity we observe around us. How is it that so many different people, in so many different places, doing so many different things, produce exactly the goods and services we want to buy? Economics provides an answer.

Economics is also vital to business. An understanding of the basics of economic decision making