



eleventh edition

# MICROECONOMICS

Stephen L. Slavin

Year	GDP*	Consumption	Gross Investment	Government Purchases	Net Exports**	Real GDP (in billions of chained 2009 dollars)	Percentage Change from Previous Year in Real GDP	Consumer Price Index	Unemployment Rate
1970	1,076	648	170	254	4	4,718	0.2%	5.6%	4.9%
1971	1,168	701	197	269	1	4,873	3.3	3.3	5.9
1972	1,282	769	228	288	-3	5,129	5.2	3.4	5.6
1973	1,429	851	267	306	4	5,418	5.6	8.7	4.9
1974	1,549	932	275	343	-1	5,390	-0.5	12.3	5.6
1975	1,689	1,033	257	383	16	5,380	-0.2	6.9	8.5
1976	1,878	1,150	323	406	-2	5,669	5.4	4.9	7.7
1977	2,086	1,277	397	436	-23	5,931	4.6	6.7	7.1
1978	2,357	1,426	478	477	-25	6,260	5.6	9.0	6.1
1979	2,632	1,590	540	526	-23	6,459	3.2	13.3	5.8
1980	2,863	1,755	530	591	-13	6,443	-0.2	12.5	7.1
1981	3,211	1,938	631	655	-13	6,611	2.6	8.9	7.6
1982	3,345	2,074	581	710	-20	6,484	-1.9	3.8	9.7
1983	3,638	2,287	638	766	-52	6,785	4.6	3.8	9.6
1984	4,041	2,498	820	825	-103	9,277	7.3	3.9	7.5
1985	4,347	2,723	830	908	-114	7,586	4.2	3.8	7.2
1986	4,590	2,898	849	975	-132	7,852	3.5	1.1	7.0
1987	4,870	3,092	892	1,031	-145	8,124	3.5	4.4	6.2
1988	5,253	3,347	937	1,078	-109	8,465	4.2	4.6	5.5
1989	5,658	3,593	1,000	1,152	-87	8,777	3.7	4.6	5.3
1990	5,980	3,826	994	1,238	-78	8,945	1.9	6.1	5.6
1991	6,174	3,960	944	1,298	-29	9,939	-0.1	3.1	6.8
1992	6,539	4,216	1,013	1,345	-35	9,257	3.6	2.9	7.5
1993	6,879	4,471	1,107	1,366	-65	9,511	2.7	2.7	6.9
1994	7,309	4,741	1,257	1,404	-93	9,895	4.0	2.7	6.1
1995	7,664	4,984	1,318	1,452	-90	10,164	2.7	2.5	5.6
1996	8,100	5,268	1,432	1,496	-96	10,550	3.8	3.3	5.4
1997	8,609	5,561	1,596	1,554	-102	11,023	4.5	1.7	4.9
1998	9,089	5,903	1,735	1,614	-163	11,513	4.4	1.6	4.5
1999	9,666	6,317	1,884	1,726	-261	12,071	4.8	2.7	4.2
2000	10,290	6,802	2,034	1,834	-380	12,565	4.1	3.4	4.0
2001	10,625	7,107	1,929	1,959	-369	12,684	1.0	1.6	4.7
2002	10,980	7,385	1,925	2,095	-425	12,010	1.8	2.4	5.8
2003	11,512	7,764	2,028	2,221	-501	13,270	2.8	1.9	6.0
2004	12,277	8,258	2,277	2,357	-615	13,774	3.8	3.3	5.5
2005	13,095	8,790	2,527	2,494	-716	14,236	3.4	3.4	5.1
2006	13,858	9,298	2,681	2,642	-762	14,615	2.7	2.5	4.6
2007	14,480	9,744	2,644	2,802	-710	14,877	1.8	4.1	4.6
2008	14,720	10,006	2,425	3,003	-713	14,834	-0.3	0.1	5.8
2009	14,418	9,843	1,878	3,089	-392	14,418	-2.8	2.7	9.3
2010	14,958	10,202	2,101	3,174	-519	14,779	2.5	1.5	9.6
2011	15,534	10,712	2,232	3,159	-569	15,052	1.8	3.0	8.9
2012	16,245	11,150	2,475	3,167	-547	15,471	2.8	1.7	8.1

\*Numbers may not add up because of rounding.

\*\*From 1929 to 1937, 1942, 1954, and 1959 net exports were less than  $\pm$  \$0.5 billion.

Source: [www.bea.gov](http://www.bea.gov); consumption and investment (1929–1964) based on author's estimates.



# connect<sup>®</sup>

## ECONOMICS

McGraw-Hill's Connect Plus<sup>®</sup> Economics, a proven digital solution that will help you achieve your course goals of improving student readiness, enhancing student engagement, and increasing their comprehension of content, is now available with **Slavin's *Microeconomics*, Eleventh Edition!**

You can utilize publisher-provided materials, or add your own materials, to design a complete course to help your students achieve higher outcomes.

### Instructor access includes:

- Simple **assignment management**, allowing you to spend more time teaching.
- **Auto-graded** assignments, quizzes, and tests.
- **Detailed visual reporting** where student and section results can be viewed and analyzed.
- Sophisticated **online testing** capability.
- A **filtering and reporting** function that allows you to easily assign and report on materials that are correlated to learning outcomes, Bloom's taxonomy, and more.
- **Instructor materials** to help supplement your course.

### Student access includes:

- Easy **online access** to homework, tests, and quizzes.
- **Immediate feedback** and 24-hour tech support.
- **Quick access to lectures**, additional practice materials, an eBook, and more!

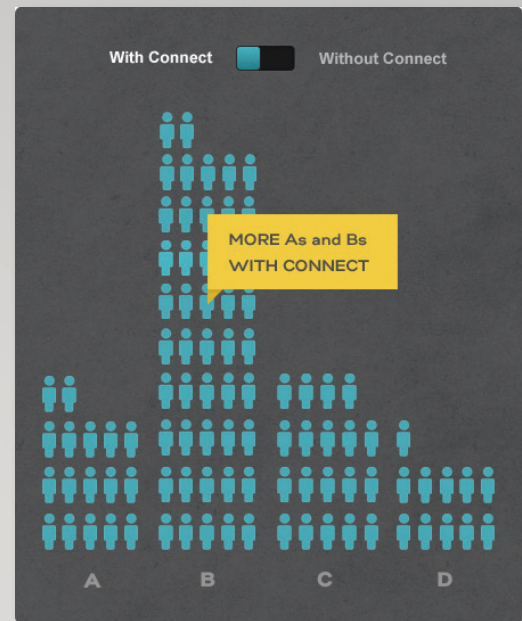
The Eleventh Edition of Slavin includes many components specific to this product proven to increase student success. McGraw-Hill's adaptive learning component, **LearnSmart™**, provides assignable modules that help students master core concepts and come to class more prepared.

The **graphing tool** allows students to complete relevant graphing exercises and problems associated with the end-of-chapter materials and then receive immediate feedback.

See the next two pages for more details on LearnSmart, the graphing tool, eBooks, and Tegrity lecture capture – all available with Connect Plus Economics!



### PROVEN EFFECTIVE



# Get Connected.

## FEATURES

**Practice quiz**  
Make your own quizzes to practice for upcoming tests or exams.

**Current learning status**  
View how much you have left to learn and how much you should refresh so that you don't forget your new knowledge.

**Missed questions**  
View frequently missed questions. You can practice questions you recently got wrong.

**Self-Assessment**  
View how aware you were of whether or not you know the answers. This awareness can help you study more effectively.

**Most challenging learning objectives**  
View the learning objectives that are the hardest for you. You can look them up in your book in order to study them further.

**Tree of Knowledge**  
View your Tree of Knowledge and watch it grow as you learn. You can compare your tree of knowledge with the tree from yesterday. See what happens if you stop practicing.

**Module Details**  
View the modules and sections you struggled with the most. You can look up each challenging section for more study.

According to the law of demand, as market price increases, quantity demanded \_\_\_\_

Do you know the answer? (Be honest.)

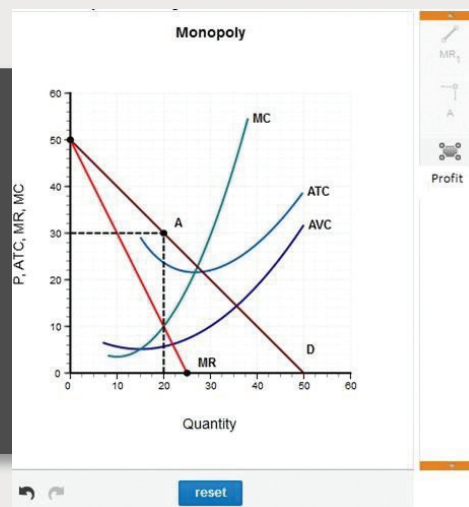
Yes Probably Maybe No—just guessing

## LearnSmart™

McGraw-Hill LearnSmart is an adaptive learning program that identifies what an individual student knows and doesn't know. LearnSmart's adaptive learning path helps students learn faster, study more efficiently, and retain more knowledge. Reports available for both students and instructors indicate where students need to study more and assess their success rate in retaining knowledge.

## Graphing Tool

The graphing tool within Connect Economics provides opportunities for students to draw, interact with, manipulate, and analyze graphs in their online auto-graded assignments, as they would with pencil and paper. The Connect graphs are identical in presentation to the graphs in the book, so students can easily relate their assignments to their reading material.





# Get Engaged.

## eBook

Connect Plus includes a media-rich eBook that allows you to share your notes with your students. Your students can insert and review their own notes, highlight the text, search for specific information, and interact with media resources. Using an eBook with Connect Plus gives your students a complete digital solution that allows them to access their materials from any computer.

Chapter4: Supply and Demand

### Demand

We define demand as the schedule of quantities of a good or service that people are willing and able to buy at different prices. And as you would suspect, the lower the price, the more people will buy.

Definition of demand: the schedule of quantities of a good or service that people are willing and able to buy at different prices.

How much would people living in Denver or in Chicago be willing and able to pay for a round-trip plane ticket for weekday travel between the two cities? Suppose we conducted a survey and were able to draw up a demand schedule like the one shown in Table 1.

p. 72

Price	Quantity Demanded
\$500	1,000
450	3,000
400	7,000
350	12,000
300	19,000
250	30,000
200	45,000
150	57,000

## Lecture Capture

Rich Nurnick

Intermediate Microeconomic Theory: Master Section

Search in this class...

True or False? "An increase in demand results in an equilibrating increase in supply to balance out the market forces."

(a) Increase in demand

(b) Decrease in demand

step 4 shows rise in Q<sub>S</sub>

Price (\$)

Quantity (Q)

Supply (S)

Demand (D)

Demand (D')

Price (\$)

Quantity (Q)

Supply (S)


Demand (D)

Demand (D')

00001/00157

egrety

Make your classes available anytime, anywhere with simple, one-click recording. Students can search for a word or phrase and be taken to the exact place in your lecture that they need to review.



*Microeconomics*

# The McGraw-Hill Series

## Economics

### ESSENTIALS OF ECONOMICS

Brue, McConnell, and Flynn  
**Essentials of Economics**  
*Third Edition*

Mandel  
**Economics: The Basics**  
*First Edition*

Schiller  
**Essentials of Economics**  
*Ninth Edition*

### PRINCIPLES OF ECONOMICS

Colander  
**Economics, Microeconomics, and Macroeconomics**  
*Ninth Edition*

Frank and Bernanke  
**Principles of Economics, Principles of Microeconomics, and Principles of Macroeconomics**  
*Fifth Edition*

Frank and Bernanke  
**Brief Editions: Principles of Economics, Principles of Microeconomics, Principles of Macroeconomics**  
*Second Edition*

McConnell, Brue, and Flynn  
**Economics, Microeconomics, and Macroeconomics**  
*Nineteenth Edition*

McConnell, Brue, and Flynn  
**Brief Editions: Economics, Microeconomics, Macroeconomics**  
*Second Edition*

Miller  
**Principles of Microeconomics**  
*First Edition*

Samuelson and Nordhaus  
**Economics, Microeconomics, and Macroeconomics**  
*Nineteenth Edition*

Schiller  
**The Economy Today, The Micro Economy Today, and The Macro Economy Today**  
*Thirteenth Edition*

Slavin  
**Economics, Microeconomics, and Macroeconomics**  
*Eleventh Edition*

### ECONOMICS OF SOCIAL ISSUES

Guell  
**Issues in Economics Today**  
*Sixth Edition*

Sharp, Register, and Grimes  
**Economics of Social Issues**  
*Twentieth Edition*

### ECONOMETRICS

Gujarati and Porter  
**Basic Econometrics**  
*Fifth Edition*

Gujarati and Porter  
**Essentials of Econometrics**  
*Fourth Edition*

### MANAGERIAL ECONOMICS

Baye  
**Managerial Economics and Business Strategy**  
*Eighth Edition*

Brickley, Smith, and Zimmerman  
**Managerial Economics and Organizational Architecture**  
*Fifth Edition*

Thomas and Maurice  
**Managerial Economics**  
*Eleventh Edition*

### INTERMEDIATE ECONOMICS

Bernheim and Whinston  
**Microeconomics**  
*Second Edition*

Dornbusch, Fischer, and Startz  
**Macroeconomics**  
*Eleventh Edition*

Frank  
**Microeconomics and Behavior**  
*Eighth Edition*

### ADVANCED ECONOMICS

Romer  
**Advanced Macroeconomics**  
*Fourth Edition*

### MONEY AND BANKING

Cecchetti and Schoenholtz  
**Money, Banking, and Financial Markets**  
*Third Edition*

### URBAN ECONOMICS

O'Sullivan  
**Urban Economics**  
*Eighth Edition*

### LABOR ECONOMICS

Borjas  
**Labor Economics**  
*Sixth Edition*

McConnell, Brue, and Macpherson  
**Contemporary Labor Economics**  
*Tenth Edition*

### PUBLIC FINANCE

Rosen and Gayer  
**Public Finance**  
*Ninth Edition*

Seidman  
**Public Finance**  
*First Edition*

### ENVIRONMENTAL ECONOMICS

Field and Field  
**Environmental Economics: An Introduction**  
*Sixth Edition*

### INTERNATIONAL ECONOMICS

Appleyard, Field, and Cobb  
**International Economics**  
*Eighth Edition*

King and King  
**International Economics, Globalization, and Policy: A Reader**  
*Fifth Edition*

Pugel  
**International Economics**  
*Fifteenth Edition*



# *Microeconomics*

ELEVENTH EDITION

Stephen L. Slavin

Union County College  
*Cranford, New Jersey*

The New School University  
*New York City*

Mc  
Graw  
Hill  
Education





MICROECONOMICS, ELEVENTH EDITION

Published by McGraw-Hill Education, 2 Penn Plaza, New York, NY 10121. Copyright © 2014 by McGraw-Hill Education. All rights reserved. Printed in the United States of America. Previous editions © 2011, 2009, and 2008. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of McGraw-Hill Education, including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

Some ancillaries, including electronic and print components, may not be available to customers outside the United States.

This book is printed on acid-free paper.

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

ISBN 978-0-07-764154-2

MHID 0-07-764154-X

Senior Vice President, Products & Markets: *Kurt L. Strand*  
Vice President, Content Production & Technology Services: *Kimberly Meriwether David*  
Managing Director: *Douglas Reiner*  
Brand Manager: *Scott Smith*  
Executive Director of Development: *Ann Torbert*  
Managing Development Editor: *Christina Kouvelis*  
Editorial Coordinator: *Casey Rasch*  
Director of Digital Content: *Doug Ruby*  
Digital Development Editor: *Kevin Shanahan*  
Marketing Manager: *Katie Hoenicke*  
Director, Content Production: *Terri Schiesl*  
Content Project Manager: *Dana M. Pauley*  
Content Project Manager: *Daryl Horrocks*  
Senior Buyer: *Carol A. Bielski*  
Design: *Matthew Baldwin*  
Cover Image: © *Getty Images*  
Content Licensing Specialist: *Joanne Mennemeier*  
Typeface: *10/12 Times*  
Compositor: *Aptara®*, Inc.  
Printer: *R. R. Donnelley*

All credits appearing on page or at the end of the book are considered to be an extension of the copyright page.

**Library of Congress Cataloging-in-Publication Data**

Slavin, Stephen L.  
Microeconomics / Stephen L. Slavin.—Eleventh edition.  
pages cm.—(The McGraw-Hill series economics)  
Includes index.  
ISBN 978-0-07-764154-2 (alk. paper)—ISBN 0-07-764154-X (alk. paper)  
1. Microeconomics. I. Title.  
HB172.S57 2014  
338.5—dc23

2013031490

The Internet addresses listed in the text were accurate at the time of publication. The inclusion of a website does not indicate an endorsement by the authors or McGraw-Hill Education, and McGraw-Hill Education does not guarantee the accuracy of the information presented at these sites.

# About the Author



Photo credit: Leontine Temsky

**Stephen L. Slavin** received his BA in economics from Brooklyn College and his MA and PhD in economics from New York University. He has taught at New York Institute of Technology, Brooklyn College, St. Francis College (Brooklyn), and in the MBA program at Fairleigh Dickinson University, at the New School University in New York City, and at Union County College in Cranford, New Jersey.

He has written eight other books: *The Einstein Syndrome: Corporate Anti-Semitism in America Today* (University Press of America); *Jelly Bean Economics: Reaganomics in the Early 1980s* (Philosophical Library); *Economics: A Self-Teaching Guide*, *All the Math You'll Ever Need*, *Math for Your First- and Second-Grader*, *Quick Business Math: A Self-Teaching Guide* (all four published by John Wiley & Sons); *Chances Are: The Only Statistics Book You'll Ever Need* (University Press of America); and *Everyday Math in 20 Minutes a Day* (Learning-Express). He is the coauthor of four other Wiley books, *Practical Algebra*, *Quick Algebra Review*, *Precalculus*, and *Geometry*. In addition he is also the coauthor of *Basic Mathematics*, a text published by Pi squared Publishers.

Dr. Slavin's articles have appeared in *Studies in Family Planning*, *Economic Planning*, *Journal of BioSocial Science*, *Business and Society Review*, *Bankers Magazine*, *Education for Business*, *Public Management*, *Better Investing*, *Northwest Investment Review*, *U.S.A. Today Magazine*, *Patterns in Prejudice*, *Culturefront*, and *Conservative Review*. In addition, he has written more than 500 newspaper commentaries on public policy, demographic economics, politics, urban economics, international trade, investments, and economics fluctuations.

*This page intentionally left blank*

# Preface to the Instructor

As an undergraduate economics student, I never imagined writing a textbook—let alone one going into its eleventh edition. Back in those good-old days, economics texts were all stand-alone books without any supplements, and seldom cost students more than five dollars. While we certainly need to keep up with the times, not all change is for the good. Surely not when our students are paying more than \$150 for textbooks they barely read.

Why not write a book that students would actually enjoy reading and sell it at a price they can afford? Rather than serving up the same old dull fare, why not just have a conversation with the reader, illustrating various economic concepts anecdotally?

Economics can be a rather intimidating subject, with its extensive vocabulary, complicated graphs, and quantitative tendencies. Is it possible to write a principles text that lowers the student's anxiety level without watering down the subject matter? To do this, one would need to be an extremely good writer, have extensive teaching experience, and have solid academic training in economics. In this case, two out of three is just not good enough.

Why did I write this book? Probably my moment of decision arrived more than 30 years ago when I mentioned to my macro class that Kemp-Roth cut the top personal income tax bracket from 70 percent to 50 percent. Then I asked, "If you were rich, by what percentage were your taxes cut?"

The class sat there in complete silence. Most of the students stared at the blackboard, waiting for me to work out the answer. I told them to work it out themselves. I waited. And I waited. Finally, someone said, "Twenty percent?"

"Close," I replied, "but no cigar."

"Fourteen percent?" someone else ventured.

"No, you're getting colder."

After waiting another two or three minutes, I saw one student with her hand up. One student knew that the answer was almost 29 percent—one student in a class of 30.

When do they teach students how to do percentage changes? In high school? In middle school? Surely not in a college economics course.

How much of *your* time do you spend going over simple arithmetic and algebra? How much time do you spend going over simple graphs? Wouldn't you rather be spending that time discussing economics?

Now you'll be able to do just that, because all the arithmetic and simple algebra that you normally spend time explaining is covered methodically in this book. All you'll need to do is tell your students which pages to look at.

The micro chapters offer scores of tables and graphs for the students to plot on their own; the solutions are shown in the book. Learning actively rather than passively, your students will retain a lot more economics.

As an economics instructor for more than 30 years at such fabled institutions as Brooklyn College, New York Institute of Technology, St. Francis College (Brooklyn), and Union County College, I have used a variety of texts. But each of their authors assumed a mathematical background that the majority of my students did not have. Each also assumed that his graphs and tables were comprehensible to the average student.

The biggest problem we have with just about any book we assign is that most of our students don't bother to read it before coming to class. Until now, no one has written a principles text in plain English. I can't promise that every one of your students will do the readings you assign, but at least they won't be able to complain anymore about not understanding the book.

## Distinctive Qualities

My book has seven qualities that no other principles text has.

1. **It reviews math that students haven't done since middle school and high school.**
2. **It's an interactive text, encouraging active rather than passive reading.** Students are expected to solve numerical problems, fill in tables, draw graphs, and do economic analysis as they read the text.
3. **It's a combined textbook and workbook.** Students in the principles course learn economics by doing economics. Each chapter is followed by workbook pages that include multiple-choice and fill-in questions, as well as numerical problems.
4. **It is a cost-effective textbook solution.** And it has a built-in study guide.
5. **It's written in plain English without jargon.** See for yourself. Open any page and compare my writing style with that of any other principles author. This book is written to communicate clearly and concisely with the students' needs in mind.
6. **It is written with empathy for students.** My goal is to get students past their math phobias and fear of graphs by having them do hundreds of problems, step-by-step, literally working their way through the book.

7. **It is a text pitched both to advanced students and students who are struggling.** What you have is a three-track book—a mainstream text, advanced work boxes for those who want to be challenged, and extra help boxes for the students who need more support.

## Special Features

Four special features of the book are its integrated coverage of the global economy, extra help boxes, advanced work boxes, and its end-of-chapter Economics in Action features.

## The Global Economy

Until the early 1970s our economy was largely insulated from the rest of the world economy. All of this changed with the oil price shock of 1973, our subsequent growing appetite for fuel-efficient Japanese compact cars, as well as for TVs, DVD players, cell phones, personal computers, and other consumer electronics made in Asia. As our trade deficits grew, and as foreigners bought up more and more American assets, every American became quite aware of how integrated we had become within the global economy.

The eleventh edition has two chapters devoted entirely to the global economy—Chapter 19 (International Trade) and Chapter 20 (International Finance). In addition, we have integrated a great deal of material dealing specifically with the global economy throughout the text.

Here are some of the things we look at:

- Shipbreaking (Ch. 3, p. 58)
- The “Isms”: Capitalism, Communism, Fascism, and Socialism (Ch. 3, pp. 64–67)
- The Decline of the Communist System (Ch. 3, p. 67)
- The Corporate Hierarchy (Ch. 10, p. 264)
- The *Dango* (Ch. 12, p. 301)
- European Antitrust (Ch. 13, p. 327)
- Poverty in Various Countries (Ch. 18, p. 440)

## Extra Help Boxes

Students taking the principles course have widely varying backgrounds. Some have no problem doing the math or understanding basic economic concepts. But many others are lost from day one.

I have provided dozens of Extra Help boxes for the students who need them. They are especially useful to

instructors who don't want to spend hours of class time going over material that they assume should be understood after one reading.

Of course these boxes can be skipped by the better prepared students.

Here are some of the topics covered in the Extra Help boxes:

- Finding the Opportunity Cost (Ch. 2, p. 35)
- How Changes in Demand Affect Equilibrium (Ch. 4, p. 80)
- How Changes in Supply Affect Equilibrium (Ch. 4, p. 82)
- Price Ceilings, Price Floors, Shortages, and Surpluses (Ch. 4, p. 86)
- Differentiating between Changes in Supply and Changes in Quantity Supplied (Ch. 5, pp. 105, 112)
- Practice Problems Finding Price Elasticity of Demand (Ch. 6, p. 134)
- Calculating Marginal Utility and Total Utility (Ch. 7, p. 166)
- Finding Marginal Cost When the Output Is 0 (Ch. 8, p. 182)
- What's the Difference between Shutting Down and Going Out of Business? (Ch. 8, p. 197)
- Accounting Profit versus Economic Profit (Ch. 9, p. 214)
- Finding the Firm's Short-Run and Long-Run Supply Curves, and Shut-Down and Break-Even Points (Ch. 9, p. 221)
- How to Find the Monopolist's Price and Output (Ch. 10, p. 251)
- Productivity and Marginal Physical Product (Ch. 14, p. 344)
- Finding the Imperfect Competitor's MRP (Ch. 14, p. 348)
- Quick Review of Calculating Percentage Changes (Ch. 16, p. 393)
- Finding the Percentage of Income Share of the Quintiles in Figure 1 (Ch. 18, p. 433)
- Interpreting the Trade Weighted U.S. Dollar Index in Figure 5 (Ch. 20, p. 503)

## Advanced Work Boxes

There are some concepts in the principles course that many instructors will want to skip. (Of course, if they're not included in principles texts, this will make other instructors quite unhappy.) These boxes are intended for the better prepared students who are willing to tackle these relatively difficult concepts.



Here is a sampling of my Advanced Work boxes:

- Post–World War II Recessions (Ch. 1, p. 12)
- The Law of Increasing Costs (Ch. 2, p. 36)
- Finding Equilibrium Price and Quantity (Ch. 5, p. 117)
- Why We Don't Use a Simpler Elasticity Formula (Ch. 6, p. 133)
- Deriving the Shut-Down and Break-Even Points (Ch. 8, p. 199)
- Calculating a Firm's Total Loss (Ch. 9, pp. 218–219)
- Maximizing Total Profit and Maximizing Profit per Unit (Ch. 9, p. 230)
- Perfect Price Discrimination (Ch. 11, p. 286)
- The Concept of Margin in Economic Analysis (Ch. 14, p. 343)
- Who Created the Land? (Ch. 17, p. 413)
- Usury in Ancient Times (Ch. 17, p. 415)

## Economics in Action

Students often ask, “How does any of this affect me?” Or, “Why do I have to study economics?” The Economics in Action features provide answers to those questions. Each is a practical application of at least one of the concepts covered in the chapter.

- Chapter 1: America's Place in History (p. 19)
- Chapter 2: Will You Be Underemployed When You Graduate? (p. 41)
- Chapter 3: The Bridge to Nowhere (p. 69); The Internal Revenue Code (p. 69)
- Chapter 4: High Gas Prices—Something Only an Economist Could Love (p. 91)
- Chapter 5: Why Can't I Sell My House? (p. 119)
- Chapter 6: The Price Elasticity of Demand for Oil (p. 153)
- Chapter 7: All-You-Can-Eat Buffets (p. 173)
- Chapter 8: Wedding Hall or City Hall? (p. 203)
- Chapter 9: The Internet Effect: A More Perfect Knowledge and Lower Prices (p. 236)
- Chapter 10: Would You Allow Walmart to Open a Supercenter in Your Community? (p. 266)
- Chapter 11: Selling Status (p. 288)
- Chapter 12: Cutthroat Competition in the College Textbook Market (p. 306)
- Chapter 13: Pharmaceutical Fraud (p. 334)
- Chapter 14: Washing Machines and Women's Liberation (p. 353)
- Chapter 15: The Card Check Law (p. 375)
- Chapter 16: The Education Gap (p. 403)
- Chapter 17: Subprime, Fringe, and Payday Lending (p. 425)

- Chapter 18: Will You Ever Be Poor? (p. 456); The 1 Percent the 99 Percent (p. 457)
- Chapter 19: Buy American? (p. 488); Globalization (p. 488)
- Chapter 20: Editorial: American Exceptionality (p. 512)

## What's New and Different in the Eleventh Edition?

At the end of each chapter we've now listed the key terms and concepts that were introduced. These provide a very fast review of each chapter's most important topics.

End-of-chapter “Chapter Issues” renamed “Economics in Action.”

For students using smartphones and tablets, scanning barcodes (or QR codes) located within the chapter will guide them to additional chapter resources, including:

- Practice quizzes
- Student PowerPoints
- 4-color graphs

Students not using smartphones or tablets can access the same resources by clicking the barcodes when viewing the eBook or by going to [www.mhhe.com/slavin11e](http://www.mhhe.com/slavin11e).

Our halting recovery from the Great Recession and the fiscal and monetary stimuli that were intended to promote it are discussed and evaluated from time-to-time throughout the text. In addition, important public issues such as “the 1 percent and the 99 percent,” the Internal Revenue Code, our trillion-dollar federal budget deficits, budget sequestration, and the fiscal cliff are fully discussed.

When students ask how economics is relevant to their lives, we want this text, chapter-by-chapter, to provide them with answers. While these may not always be the answers students would like to hear, at least they will be better equipped to deal with these difficult economic times.

Finally, hundreds of end-of-chapter multiple-choice questions and problems have been added to Connect, making it much easier for you to monitor your students' progress.

- **Chapter 1:** Rewrote section, “The Ominous 00s.”
- **Chapter 2:** New box: “Steve Jobs, Entrepreneur.” New box: “Opportunity Cost in California”
- **Chapter 3:** Enlarged section, “Externalities.” Added Last Word: “The End of the Isms?” Added Economics in Action: “The Internal Revenue Code.”
- **Chapter 4:** Rewrote subsection, “College Parking,” and added Figure 13.
- **Chapter 6:** Cut box, “Death and Taxes.”
- **Chapter 10:** Added subsection: “The Economies of Platform.”
- **Chapter 13:** Added discussion of failed AT&T—T-Mobile merger to section, “Two Landmark Cases.”

- **Chapter 15:** Subsection, “Taft-Hartley Act,” updated on state right-to-work laws. Added subsection, “Lan-drum–Griffin Act (1959).” Added Figure 2: “States with Highest and Lowest Rates of Unionization.”
- **Chapter 16:** Updated subsection, “Employment Dis-crimination against Women.” Added box, “Women CEOs of the Fortune 500.”
- **Chapter 17:** Changed Figure 5 from “The Top Cor-porate Winners and Losers of 2008” to “The Most Profitable Corporations, 2012.” Eliminated section, “Profits and Losses during the Great Recession.” Expanded Economics in Action, “Subprime, Fringe, and Payday Lending.”
- **Chapter 18:** Updated subsection, “Distribution of Wealth in the United States.” New subsection: “Where the Poor Live.” New Economics in Action: “The 1 Percent and the 99 Percent.”
- **Chapter 19:** Rewrote section, “What Are the Causes of Our Trade Imbalance?” Cut box, “Sweatshop Labor.”
- **Chapter 20:** Figure 5: Removed graphs of the Chinese yuan, Japanese yen, Canadian dollar, and the euro. Cut Figure 8, “U.S. Assets Abroad and Foreign Assets in the United States, 1983–2009.” Added Table 3: “U.S. International Investment-Status, Selected Years.” Updated editorial: “American Exceptionality.” Expanded Section: “The Freely Floating Exchange Rate System, 1973 to the Present.”

## The Supplement Package

The *Microeconomics* supplement package has been stream-lined and updated for the eleventh edition. All supplements are available at [www.mhhe.com/slavin11e](http://www.mhhe.com/slavin11e). In addition to updated online quizzes, the test bank is tagged for Learning Objectives, AACSB categories, and Bloom’s Taxonomy. Also, the PowerPoint presentations for each chapter have been revised to increase relevance and clarity.

## Instructor’s Manual

This provides instructors with ideas on how to use the text, includes a description of the text’s special features, a chapter-by-chapter discussion of material new to the eleventh edition, and a rundown of chapter coverage to help them decide what they can skip. Also found here are the answers to the workbook questions and questions for thought and discussion at the end of each chapter of the text, as well as chapter worksheets and worksheet solutions.

Deborah M. Figart and Ellen Mutari of Richard Stockton College of New Jersey revised the Instructor’s Manual for the eleventh edition, and updated the sections on chapter objectives, ideas for use in class, and homework

questions and projects for each chapter. The Instructor’s Manual provides a rich source of interesting ideas of class-room activities and discussions involving concepts and issues included in the text.

## Test Bank

The test bank includes over 9,000 multiple-choice ques-tions, fill-in questions, and problems tagged to Learning Objectives, AACSB categories, and Bloom’s Taxonomy. Melinda Smith and Jim O’Mealey from Tulsa Commu-nity College worked together to update and revise the test bank for this edition.

## Computerized Testing

A comprehensive bank of test questions is provided within a computerized test bank powered by McGraw-Hill’s flexible electronic testing program EZ Test Online ([www.eztestonline.com](http://www.eztestonline.com)). EZ Test Online supplies instruc-tors with the capability to create tests or quizzes in this easy-to-use program!

Instructors can select questions from multiple McGraw-Hill test banks or author their own, and can either print the test for paper distribution or supply it online. This user-friendly program allows instructors to sort questions by format; edit existing questions or add new ones; and scramble questions for multiple versions of the same test. You can export your tests for use in WebCT, Blackboard, and PageOut. Sharing tests with col-leagues, adjuncts, and TAs is easy! Instant scoring and feedback is provided and EZ Test’s grade book is designed to easily export to your grade book.

## PowerPoint Presentations

PowerPoint presentations are available and can be cus-tomized by the professor for length and level. Sandra Zingo of Tulsa Community College has done a wonderful job updating and revising these presentations to highlight the most important concepts from each chapter.

## Digital Image Library

All the graphs from the text are available in chapter-specific files for easy download. These images will aid in classroom presentations and the student’s understanding.

## Videos

A selection of videos is available to adopters, including both tutorial lessons and programs that combine historical footage, documentary sequences, interviews, and analysis to illustrate economic theory. A series of videos produced

by Paul Solman, business and economics correspondent for the Lehrer NewsHour and WGBH Boston, covers the core topics in economics.

## Book Website

[www.mhhe.com/slavin11e](http://www.mhhe.com/slavin11e)

Some of the text's unique qualities are incorporated in a dynamic new website. Updated online multiple-choice quizzes emphasize the chapter Learning Objectives and offer further reinforcement of important chapter concepts.

## McGraw-Hill *Connect*<sup>®</sup> *Economics*

*Less Managing. More Teaching. Greater Learning.*



McGraw-Hill *Connect*<sup>®</sup> *Economics* is an online assignment and assessment solution that connects students with the tools and resources they'll need to achieve success.

McGraw-Hill *Connect*<sup>™</sup> *Economics* helps prepare students for their future by enabling faster learning, more efficient studying, and higher retention of knowledge.

## McGraw-Hill *Connect*<sup>®</sup> *Economics Features*



*Connect*<sup>™</sup> *Economics* offers a number of powerful tools and features to make managing assignments easier, so faculty can spend more time teaching. With *Connect*<sup>™</sup> *Economics*, students can engage with their coursework anytime and anywhere, making the learning process more accessible and efficient. *Connect*<sup>™</sup> *Economics* offers the features as described here.

### *Simple Assignment Management*

With *Connect*<sup>™</sup> *Economics*, creating assignments is easier than ever, so you can spend more time teaching and less time managing. The assignment management function enables you to:

- Create and deliver assignments easily with selectable end-of-chapter questions and test bank items.
- Streamline lesson planning, student progress reporting, and assignment grading to make classroom management more efficient than ever.
- Go paperless with the eBook and online submission and grading of student assignments.

### *Smart Grading*

When it comes to studying, time is precious. *Connect*<sup>™</sup> *Economics* helps students learn more efficiently by providing feedback and practice material when they need it, where they need it. When it comes to teaching, your time also is precious. The grading function enables you to:

- Have assignments scored automatically, giving students immediate feedback on their work and side-by-side comparisons with correct answers.
- Access and review each response; manually change grades or leave comments for students to review.
- Reinforce classroom concepts with practice tests and instant quizzes.

### *Instructor Library*

- The *Connect*<sup>™</sup> *Economics* Instructor Library is your repository for additional resources to improve student engagement in and out of class. You can select and use any asset that enhances your lecture.

### *Student Study Center*

The *Connect*<sup>™</sup> *Economics* Student Study Center is the place for students to access additional resources. The Student Study Center:

- Offers students quick access to lectures, practice materials, eBooks, and more.
- Provides instant practice material and study questions, easily accessible on the go.

### *Student Progress Tracking*

*Connect*<sup>™</sup> *Economics* keeps instructors informed about how each student, section, and class is performing, allowing for more productive use of lecture and office hours. The progress-tracking function enables you to:

- View scored work immediately and track individual or group performance with assignment and grade reports.
- Access an instant view of student or class performance relative to learning objectives.
- Collect data and generate reports required by many accreditation organizations, such as AACSB.


### *Lecture Capture*

Increase the attention paid to lecture discussion by decreasing the attention paid to note taking. For an additional

charge Lecture Capture offers new ways for students to focus on the in-class discussion, knowing they can revisit important topics later. Lecture Capture enables you to:

- Record and distribute your lecture with a click of a button.
- Record and index PowerPoint presentations and anything shown on your computer so it is easily searchable, frame by frame.
- Offer access to lectures anytime and anywhere by computer, iPod, or mobile device.
- Increase intent listening and class participation by easing students' concerns about note taking. Lecture Capture will make it more likely you will see students' faces, not the tops of their heads.

## McGraw-Hill Connect™ Plus Economics


 McGraw-Hill reinvents the textbook learning experience for the modern student with *Connect™ Plus Economics*. A seamless integration of an eBook and *Connect™ Economics*, *Connect™ Plus Economics* provides all of the *Connect™ Economics* features plus the following:

- An integrated eBook, allowing for anytime, anywhere access to the textbook.
- Dynamic links between the problems or questions you assign to your students and the location in the eBook where that problem or question is covered.
- A powerful search function to pinpoint and connect key concepts in a snap.

In short, *Connect™ Economics* offers you and your students powerful tools and features that optimize your time and energies, enabling you to focus on course content, teaching, and student learning. *Connect™ Economics* also offers a wealth of content resources for both instructors and students. This state-of-the-art, thoroughly tested system supports you in preparing students for the world that awaits.

For more information, please visit [www.mcgrawhill-connect.com](http://www.mcgrawhill-connect.com), or contact your local McGraw-Hill sales representative.

## Tegrity Campus: Lectures 24/7

 Tegrity Campus is a service that makes class time available 24/7 by automatically capturing every lecture in a searchable format for students to review when they study and complete assignments. With a simple one-click start-and-stop

process, you capture all computer screens and corresponding audio. Students can replay any part of any class with easy-to-use browser-based viewing on a PC or Mac.

Educators know that the more students can see, hear, and experience class resources, the better they learn. In fact, studies prove it. With Tegrity Campus, students quickly recall key moments by using Tegrity Campus's unique search feature. This search helps students efficiently find what they need, when they need it, across an entire semester of class recordings. Help turn all your students' study time into learning moments immediately supported by your lecture.

To learn more about Tegrity watch a 2-minute Flash demo at <http://tegritycampus.mhhe.com>.

## McGraw-Hill Customer Care Contact Information

At McGraw-Hill, we understand that getting the most from new technology can be challenging. That's why our services don't stop after you purchase our products. You can e-mail our Product Specialists 24 hours a day to get product training online. Or you can search our knowledge bank of Frequently Asked Questions on our support website. For Customer Support, call **800-331-5094**, e-mail [hmsupport@mcgraw-hill.com](mailto:hmsupport@mcgraw-hill.com), or visit [www.mhhe.com/support](http://www.mhhe.com/support). One of our Technical Support Analysts will be able to assist you in a timely fashion.

## Assurance of Learning Ready

Assurance of learning is an important element of many accreditation standards. *Microeconomics*, 11e, is designed specifically to support your assurance of learning initiatives.

Each chapter in the book begins with a list of numbered learning objectives, which appear throughout the chapter, as well as in the end-of-chapter Workbook. Every test bank question is also linked to one of these objectives, in addition to level of difficulty, Bloom's Taxonomy level, and AACSB skill area. EZ Test and EZ Test Online, McGraw-Hill's easy-to-use test bank software, along with *Connect™ Economics* allow you to search the test bank by these and other categories, providing an engine for targeted Assurance of Learning analysis and assessment.

## AACSB Statement

The McGraw-Hill Companies is a proud corporate member of AACSB International. Understanding the importance and value of AACSB accreditation, *Microeconomics*, 11e has sought to recognize the curricula guidelines detailed in AACSB standards for business accreditation



by connecting selected questions in the test bank to the general knowledge and skill guidelines found in the AACSB standards.

The statements contained in *Microeconomics*, 11e are provided only as a guide for the users of this text. The AACSB leaves content coverage and assessment within the purview of individual schools, the mission of the school, and the faculty. While *Microeconomics*, 11e and the teaching package make no claim of any specific AACSB qualification or evaluation, we have, within *Microeconomics*, 11e labeled selected questions according to the six general knowledge and skills areas.

## Acknowledgments

Over the years since the first edition, hundreds of people have helped in large and small ways to shape this text. I especially wish to thank past editors Gary Nelson, Tom Thompson, Paul Shensa, Doug Hughes, Anne Hilbert, and Christina Kouvelis.

Casey Rasch, the developmental editor, saw this project through from the first reviews, the chapter-by-chapter revisions, and the dozens of deadlines that we met, to the time the book finally went into production. Casey was great at keeping all the plates spinning, dealing with a diverse group of personalities, making sure that all the pieces fit, and seeing to it that the text and the supplements were ready to go.

Content project manager Dana Pauley, with whom I worked day to day over several editions, managed the copyediting, artwork, and page proofs, and saw to it that we stayed not just on schedule, but ahead of schedule. Sharon O'Donnell did a very thorough copyediting job, finding errors and inconsistencies, some of which originated in earlier editions. Also, special thanks to proofreader, Bette Ittersagen for exceptional attention to detail. Matt Baldwin oversaw the design of the book from cover to cover. Manish Sharma, the project manager at Aptara Corporation, delivered an attractive and accurately composed text. Lead buyer Carol Bielski made the printing process seamless and effortless. Content project manager Daryl Horrocks made sure the supplement production process went smoothly.

Scott Smith, the brand manager, and Casey Rasch and Christina Kouvelis, the developmental editors, were all involved from start to finish. In addition to making sure that the text and all the supplements were printed on schedule, Casey is looking forward to hearing suggestions from instructors using the text. Katie Hoenicke, the senior marketing manager, has been working to help the book reach an even wider audience than the tenth edition.

Every economist knows that no product sells itself. Without major sales and marketing efforts, my text could not sell very well. Most of the credit goes to all the McGraw-Hill/Irwin sales reps for all their efforts to sell

my book. And I would especially like to thank the reps in Dubuque, Iowa, who have personally accounted for about a quarter of our sales.

Thomas Parsons (Massachusetts Bay Path Community College), Ronald Picker (St. Mary of the Woods College), Tom Andrews (West Chester State University), Christine Amsler (Michigan State), Cal Tamanji (Milwaukee Area Technical College), Kelly Whealan George (Embry Riddle University), Khalid Mehtabdin (The College of St. Rose), and Jim Watson (Jefferson College) very generously provided numerous suggestions which greatly improved the text. I also want to thank Ellen Mutari and Deb Figart for their thorough accuracy check of all the in-text problems. You may have been wondering who took that great photo of me on the author's page. The photographer is Leontine Temsky, who happens to be my sister. She also found a great website, [www.zillow.com](http://www.zillow.com), which tells you instantly how much your house is worth. You'll find dozens of useful websites listed throughout the text.

I'd also like to thank the many reviewers who helped improve this text.

John Atkins, *Pensacola Junior College*

Lyndell L. Avery, *Penn Valley Community College*  
(*Missouri*)

James Q. Aylsworth, *Lakeland Community College*

John Baffoe-Bonnie, *Pennsylvania State University*

Mohsen Bahmani-Oksooe, *University of Wisconsin,*  
*Milwaukee*

Kathleen Bailey, *Eastern Arizona College*

Kevin Baird, *Montgomery Community College*

Gyanendra Baral, *Oklahoma City Community College*

Patrick Becker, *Sitting Bull College*

David Bennett, *Ivy Tech (Indiana)*

Gary Benson, *Southwest Community College*

Derek Berry, *Calhoun Community College*

John Bethune, *Barton College (North Carolina)*

Anoop Bhargava, *Finger Lakes Community College*

Robert G. Bise, *Orange Coast College*

John Bockino, *Suffolk County Community College*

Van Bullock, *New Mexico State University*

James Burkard, *Nashville State Community College*

Gerard A. Cahill, *Florida Institute of Technology*

Joseph Calhoun, *Florida State University*

Joy Callan, *University of Cincinnati*

Tony Caporale, *University of Dayton*

Perry A. Cash, *Chadwick University (Alabama)*

Andrew Cassey, *University of Minnesota*

Jannet Chang, *Northwestern University*

Michael Cohik, *Collin Community College*

Steve Cole, *Bethel College*

Ana-Maria Conley, *DeVry Institute of*  
*Technology-Decatur*



- Dave Cook, *Western Nevada Community College*  
 James Cover, *University of Alabama, Tuscaloosa*  
 Andre Crawford, *Virginia Polytechnic Institute and State University*  
 Debra Cummings, *Fort Scott Community College (Kansas)*  
 Rosa Lea Danielson, *College of DuPage*  
 Ribhi Daoud, *Sinclair Community College*  
 Bill Demory, *Central Arizona College*  
 Craig Depken II, *University of Texas, Arlington*  
 Thomas O. Depperschmidt, *University of Memphis*  
 Sowjanya Dharmasankar, *Waubonsee Community College*  
 Amrik Singh Dua, *Mt. San Antonio College*  
 Ronald Dunbar, *MATC Truax*  
 Jerry Dunn, *Southwestern Oklahoma State University*  
 Swarna Dutt, *University of West Georgia*  
 Faruk Eray Duzenli, *Denison University*  
 Angela Dzata, *Alabama State University*  
 Stacey Edgington, *San Diego State University*  
 Deborah M. Figart, *Richard Stockton College (New Jersey)*  
 Daniel Fischer, *University of Arizona*  
 Russell L. Flora, *Pikes Peak Community College*  
 Jack Foley, *Blinn College*  
 Diana Fortier, *Waubonsee Community College*  
 Charles Fraley, *Cincinnati State Technical and Community College*  
 Arthur Friedberg, *Mohawk Valley Community College*  
 Harold Friesen, *Friends University*  
 Yoshikazu Fukasawa, *Midwestern State University*  
 Marilyn Fuller, *Paris Junior College (Texas)*  
 Alejandro Gallegos, *Winona State University*  
 Frank Garland, *Tricounty Technical College (South Carolina)*  
 Eugene Gendel, *Woodbury University*  
 Kelly George, *Florida Community College of Jacksonville*  
 Kirk Gifford, *Brigham Young University, Idaho*  
 Adam Gifford, *Lake-Sumter Community College*  
 Scott Gilbert, *Southern Illinois University, Carbondale*  
 Michael Goode, *Central Piedmont Community College*  
 Jay Goodman, *Southern Colorado University*  
 Cindy Goodyear, *Webster University*  
 Mehdi Haririan, *Bloomsburg University (Pennsylvania)*  
 Charles W. Harrington Jr., *Nova Southeastern University (Florida)*  
 Virden Harrison, *Modesto Junior College; California State University, Stanislaus, Turlock*  
 Tina Harvell, *Blinn College*  
 Gail Hawks, *Miami Dade Community College*  
 Sanford B. Helman, *Middlesex County College*  
 Carol Hogan, *University of Michigan, Dearborn*  
 Jim Holcomb, *The University of Texas at El Paso*  
 Lora Holcomb, *Florida State University*  
 Jack W. Hou, *California State University, Long Beach*  
 Nancy Howe-Ford, *Hudson Valley Community College*  
 Calvin Hoy, *County College of Morris*  
 Won-jea Huh, *University of Pittsburgh*  
 Scott Hunt, *Columbus State Community College*  
 Janet Hunter, *Northland Pioneer College (Arizona)*  
 Robert Jakubiak, *Milwaukee Area Technical College*  
 Danny Jeftich, *Ivy Tech (Indiana)*  
 Mark G. Johnson, *Lakeland Community College*  
 Roger Johnson, *Messiah College*  
 Paul Jorgensen, *Linn-Benton Community College*  
 George Jouganatos, *California State University, Sacramento*  
 Lillian Kamal, *Northwestern University*  
 Brad Kamp, *University of South Florida*  
 Tim Kane, *University of Texas, Tyler*  
 Janis Kea, *West Valley College*  
 Elizabeth Sawyer Kelly, *University of Wisconsin, Madison*  
 James Kelly, *Rio Hondo College*  
 M. Moosa Khan, *Prairie View A&M University (Texas)*  
 Kenneth E. Kimble, *Sinclair Community College*  
 Kamau Kinuthia, *American River College*  
 Sara Kiser, *Judson College*  
 Jack Klauser, *Chaminade University of Honolulu*  
 Wayne Klutarits, *Jefferson College*  
 Shawn Knabb, *Western Washington University*  
 Harry Kolendrianos, *Danville Community College*  
 Michael J. Kuryla, *SUNY-Broome Community College*  
 Sungkyu Kwak, *Washburn University*  
 Larry LaFauci, *Johnson and Wales University*  
 Helen C. Lafferty, *University of Pittsburgh*  
 Rose LaMont, *Modesto Junior College*  
 Quan Vu Le, *Seattle University*  
 Jim Lee, *Texas A&M University, Corpus Christi*  
 Raymond Lee, *Benedict College*  
 Alan Levinsohn, *SUNY-Morrisville*  
 Hui Li, *Eastern Illinois University*  
 Stephen E. Lile, *Western Kentucky University*

- Paul Lockard, *Black Hawk College*  
 Joshua Long, *Ivy Tech Distance College*  
 Marty Ludlum, *Oklahoma City Community College*  
 Brian Lynch, *Lake Land College, Illinois*  
 Alyson Ma, *University of San Diego*  
 Y. Lal Mahajan, *Monmouth University*  
 Mark H. Maier, *Glendale Community College  
(California)*  
 Kelly Manley, *Gainesville State College*  
 Eddi Marlow, *Dyersburg State Community College  
(Tennessee)*  
 Jane Mattes, *The Community College of  
Baltimore City*  
 Koula Matzouranis, *Broward Community  
College, South*  
 Fred May, *Trident Technical College*  
 Ralph May, *Southwestern Oklahoma State  
University*  
 Steven B. McCormick, *Southeastern Illinois  
College*  
 Christopher R. McIntosh, *University of Minnesota,  
Duluth*  
 Kevin McWoodson, *Moraine Valley Community  
College*  
 Jim O’Mealey, *Tulsa Community College*  
 Steven Medema, *University of Colorado, Denver*  
 Kimberly Mencken, *Baylor University*  
 Evelina Mengova, *California State University,  
Fullerton*  
 Lewis Metcalf, *Lake Land College, Illinois*  
 Arthur Meyer, *Lincoln Land Community College*  
 John E. Michaels, *University of Phoenix*  
 Green Miller, *Morehead State University*  
 David Mitchell, *University of South Alabama,  
Mobile*  
 Daniel Morvey, *Piedmont Technical College*  
 Thaddaeus Mounkurai, *Daytona Beach College*  
 Todd Myers, *Grossmont College*  
 Charles Myrick, *Dyersburg State Community College  
(Tennessee)*  
 Sung No, *Southern University A&M College*  
 Bill Nook, *Milwaukee Area Technical College*  
 Louise Nordstrom, *Nichols College*  
 Gerald Nyambane, *Davenport University  
Career Center*  
 Ronan O’Beirne, *American Institute of Computer  
Sciences (Alabama)*  
 Joan O’Brien, *Quincy College*  
 David O’Hara, *Metropolitan State University*  
 Albert Okunade, *University of Memphis*  
 Alannah Orrison, *Saddleback College*
- Michael L. Palmer, *Maple Woods Community College  
(Missouri)*  
 Craig Parmley, *Ivy Tech (Indiana)*  
 Thomas R. Parsons, *Massachusetts Bay Path Community  
College*  
 Louis A. Patille, *University of Phoenix*  
 Ronald Picker, *St. Mary of the Woods College  
(Indiana)*  
 Ray Polchow, *Zane State College*  
 Robert Posatko, *Shippensburg University of  
Pennsylvania*  
 George Radakovic, *Indiana University  
of Pennsylvania*  
 Eric Rahimian, *Alabama A&M University*  
 Farhad Rassekh, *University of Hartford*  
 Mitchell Redlo, *Monroe Community College*  
 Helen Roberts, *University of Illinois, Chicago*  
 Judith K. Robinson, *Massachusetts Bay Path Community  
College*  
 S. Scanlon Romer, *Delta College*  
 Brain Rosario, *American River College*  
 Michael Rosen, *Milwaukee Area Technical  
College*  
 Rose M. Rubin, *University of Memphis*  
 Mike Ryan, *Gainesville State College*  
 Sara Saderion, *Houston Community College, SW*  
 Dean Schau, *Columbia Basin College*  
 David Schutte, *Mountain View College*  
 Mourad Sebti, *Central Texas College*  
 W. H. Segur, *University of Redlands*  
 L. Guillermo Serpa, *University of Illinois, Chicago*  
 Dennis Shannon, *Southwestern Illinois College*  
 Mehdi S. Shariati, *Kansas City Kansas Community  
College*  
 Rimma Shiptsova, *Utah State University*  
 Stephen Shmanske, *California State University,  
East Bay*  
 Nancy Short, *Chandler–Gilbert Community  
College*  
 Barry Simpson, *University of South Alabama,  
Mobile*  
 Garvin Smith, *Daytona Beach College*  
 Noel Smith, *Palm Beach Community College*  
 John Somers, *Portland Community College*  
 Don M. Soule, *University of Kentucky*  
 Karen Spellacy, *SUNY–Canton*  
 Rob Steen, *Rollins College*  
 Bruno Stein, *New York University*  
 Stephen Steller, *University of Phoenix*  
 Daniel Stern, *South Hills School of Business  
(Pennsylvania)*

Edward Stevens, *Nebraska College of Business*  
Gary Stone, *Winthrop University*  
Roger Strickland, *Santa Fe College*  
Arlena Sullivan, *Jones County Junior College*  
Denver O. Swaby, *Columbia Union College*  
(*Maryland*)  
Max Tarpley, *Dyersburg State Community College*  
(*Tennessee*)  
Henry Terrell, *University of Maryland*  
Bette Lewis Tokar, *Holy Family College*  
(*Pennsylvania*)  
Brian Trinqué, *University of Texas, Austin*  
Mark Tyrpin, *John Wood Community College*  
Jose Vasquez, *University of Illinois at*  
*Urbana–Champaign*  
Jim Watson, *Jefferson College (Missouri)*

Christian Weber, *Seattle University*  
Simone Wegge, *CUNY–Staten Island*  
Marc Weglarski, *Macomb Community College*  
Steven White, *Glendale Community College*  
(*California*)  
J. Christopher Wreh, *North Central Texas*  
*College*  
Elaine Gale Wrong, *Montclair State College*  
Linda M. Zehr, *Chandler–Gilbert Community College*  
Sandy Zingo, *Tulsa Community College*

Finally, to all adopters of the past ten editions, thank you. Your comments and suggestions have helped make this the best edition yet.

—*Stephen L. Slavin*

# Preface to the Student

What have you heard about economics? That it's dull, it's hard, it's full of undecipherable equations and incomprehensible graphs? If you were to read virtually any of the introductory economics textbooks, that's exactly what you would find.

How is this book different from all other books? Reading this book is like having a conversation with me. I'll be right there with you, illustrating various points with anecdotes and asking you to work out numerical problems as we go along.

Are you a little shaky about the math? Your worries are over. If you can add, subtract, multiply, and divide (I'll even let you use a calculator), you can do the math in this book.

How do you feel about graphs? Do you think they look like those ultramodern paintings that even the artists can't explain? You can relax. No graph in this book has

more than four lines, and by the time you're through, you'll be drawing your *own* graphs.

In nearly every chapter you'll find one or two boxes labeled "Extra Help." Sometimes you can master a concept when additional examples are given. Don't be too proud to seek extra help when you need it. And when you don't need it, just skip the boxes.

Unlike virtually every other economics text, this one includes a built-in workbook. Even if your professor does not assign the questions at the end of each chapter, I urge you to answer them because they provide an excellent review.

I can't guarantee an "A" in this course, but whether you are taking it to fulfill a college requirement or planning to be an economics major, you will find that economics is neither dull nor all that hard.

—*Stephen L. Slavin*

*This page intentionally left blank*



# Contents in *Brief*

- 1 A Brief Economic History of the United States 1
  - 2 Resource Utilization 25
  - 3 The Mixed Economy 49
  - 4 Supply and Demand 75
  - 5 Demand, Supply, and Equilibrium 99
  - 6 The Price Elasticities of Demand and Supply 131
  - 7 Theory of Consumer Behavior 163
  - 8 Cost 179
  - 9 Profit, Loss, and Perfect Competition 211
  - 10 Monopoly 247
  - 11 Monopolistic Competition 275
  - 12 Oligopoly 293
  - 13 Corporate Mergers and Antitrust 321
  - 14 Demand in the Factor Market 341
  - 15 Labor Unions 359
  - 16 Labor Markets and Wage Rates 381
  - 17 Rent, Interest, and Profit 409
  - 18 Income Distribution and Poverty 431
  - 19 International Trade 465
  - 20 International Finance 495
- Glossary 519  
Photo Credits 531  
Index 532

*This page intentionally left blank*

# Expanded Contents

Preface xi

## 1 A Brief Economic History of the United States 1

---

Introduction 1

The American Economy in the 19th Century 2

- Agricultural Development 2
- The National Railroad Network 4
- The Age of the Industrial Capitalist 5

The American Economy in the 20th Century 6

- The Roaring Twenties 7
- The 1930s: The Great Depression 7
- The 1940s: World War II and Peacetime Prosperity 10
- The 1950s: The Eisenhower Years 14
- The Soaring Sixties: The Years of Kennedy and Johnson 14
- The Sagging Seventies: The Stagflation Decade 15
- The 1980s: The Age of Reagan 15
- The State of American Agriculture 16
- The “New Economy” of the Nineties 17
- The Ominous 00s 18

Economics in Action: America’s Place in History 19

## 2 Resource Utilization 25

---

Economics Defined 25

The Central Fact of Economics: Scarcity 26

- Scarcity and the Need to Economize 26
- The Economic Problem 26
- The Four Economic Resources 26
- Opportunity Cost 28

Full Employment and Full Production 29

The Production Possibilities Curve 32

Productive Efficiency 38

Economic Growth 38

Economics in Action: Will You Be Underemployed When You Graduate? 41

## 3 The Mixed Economy 49

---

The Three Questions of Economics 49

- What Shall We Produce? 49
- How Shall These Goods and Services Be Produced? 50
- For Whom Shall the Goods and Services Be Produced? 50
- To Sum Up 51

The Invisible Hand, the Price Mechanism, and Competition 51

- The Invisible Hand 51
- The Price Mechanism 52
- Competition 52
- Trust 53
- Equity and Efficiency 53

The Circular Flow Model 54

The Economic Role of Government 55

Market Failure 56

- Externalities 56
- Curbing Environmental Pollution 58
- Lack of Public Goods and Services 59

Government Failure 60

Capital 62

The “Isms”: Capitalism, Communism, Fascism, and Socialism 64

- The Decline and Fall of the Communist System 67
- Transformation in China 67
- Last Word: The End of the Isms? 68

Economics in Action 1: The Bridge to Nowhere 69

Economics in Action 2: The Internal Revenue Code 69

## 4 Supply and Demand 75

---

Demand 75

Supply 76

Equilibrium 78

Surpluses and Shortages 78

Shifts in Demand and Supply 79

Price Ceilings and Price Floors 83

Applications of Supply and Demand 88

Interest Rate Determination 88

College Parking 89

The Rationing Function of the Price System 90

Last Word 91

Economics in Action: High Gas Prices—Something  
Only an Economist Could Love 91

## 5 Demand, Supply, and Equilibrium 99

---

Demand Defined 99

Individual Demand and Market Demand 100

Changes in Demand 101

Increases in Demand 102

Decreases in Demand 102

Changes in Quantity Demanded and Changes in  
Demand 103

Practice Problems 104

What Causes Changes in Demand? 104

Supply Defined 108

Individual Supply and Market Supply 109

Changes in Supply 110

Practice Problems 110

What Causes Changes in Supply? 111

Graphing the Demand and Supply Curves 113

Graphing the Demand Curve 113

Graphing the Supply Curve 114

The Equilibrium Point 115

Shifts in Demand and Supply 118

Economics in Action: Why Can't I Sell My  
House? 119

## 6 The Price Elasticities of Demand and Supply 131

---

The Elasticity of Demand 131

The Price Elasticity of Demand 132

Measuring Elasticity 132

The Meaning of Elasticity 133

Determinants of the Degree of Elasticity of  
Demand 139

Advertising 141

Elasticity and Total Revenue 143

Elastic Demand and Total Revenue 143

Inelastic Demand and Total Revenue 144

Income Elasticity of Demand 144

Cross Elasticity of Demand 146

Price Elasticity of Supply 147

Elasticity over Time 148

Tax Incidence 150

Economics in Action: The Price Elasticity of  
Demand for Oil 153

## 7 Theory of Consumer Behavior 163

---

Utility 164

What Is Utility? 164

Marginal Utility 164

Total Utility 165

Maximizing Utility 165

The Water–Diamond Paradox 167

Some Limitations of Utility Applications 168

Consumer Surplus 168

Do Price Gougers Rip Us Off? 172

Economics in Action: All-You-Can-Eat  
Buffets 173

## 8 Cost 179

---

### Costs 179

- Fixed Costs 180
- Variable Costs 180
- Total Cost 180
- Marginal Cost 180

### The Short Run and the Long Run 183

- The Short Run 183
- The Long Run 183

### Average Cost 183

- Average Fixed Cost 184
- Average Variable Cost 184
- Average Total Cost 184

### Graphing the AFC, AVC, ATC, and MC Curves 186

- Why Are the AVC and ATC Curves U-Shaped? 190

### The Production Function and the

#### Law of Diminishing Returns 191

- Economies of Scale 193
- Diseconomies of Scale 194
- A Summing Up 196

### The Decision to Operate or Shut Down 196

- The Decision to Go Out of Business or Stay in Business 198
- Choosing Plant Size 200
- The Long-Run Average Total Cost Curve 202

### Economics in Action: Wedding Hall or City Hall? 203

## 9 Profit, Loss, and Perfect Competition 211

---

### Part I: Profit and Loss 211

#### Total Revenue and Marginal Revenue 212

- Graphing Demand and Marginal Revenue 212

#### Economic and Accounting Profit 213

#### Profit Maximization and Loss Minimization 213

- A Summing Up 220

#### Efficiency 222

- Review of Efficiency and Profit Maximization 222

### Part II: Perfect Competition 223

#### Definition of Perfect Competition 223

#### The Perfect Competitor's Demand Curve 226

- The Short Run 227
- The Long Run 231

#### Third Method of Calculating Profit and Loss 233

#### The Perfect Competitor: A Price Taker, Not a Price Maker 235

#### Efficiency, Price, and Profit 236

#### Economics in Action: The Internet Effect: A More Perfect Knowledge and Lower Prices 236

## 10 Monopoly 247

---

### Monopoly Defined 247

- The Graph of the Monopolist 248
- Calculating the Monopolist's Profit 250
- Review of the Monopolist's Economic Analysis 251
- The Monopolist Losing Money 253
- Alternative Method of Calculating the Monopolist's Profit or Loss 254
- The Monopolist in the Short Run and in the Long Run 255
- Are All Monopolies Big Companies? 255

### Barriers to Entry 256

### Limits to Monopoly Power 260

### Economies of Scale and Natural Monopoly 260

- What Is Natural Monopoly? 260
- Two Policy Alternatives 262

### Is Bigness Good or Bad? 263

- When Is Bigness Bad? 263
- When Is Bigness Good? 265
- The Economic Case against Bigness 265
- Conclusion 265

### Last Word 266

### Economics in Action: Would You Allow Walmart to Open a Supercenter in Your Community? 266

## 11 Monopolistic Competition 275

---

- Monopolistic Competition Defined 275
  - The Monopolistic Competitor in the Short Run 276
  - The Monopolistic Competitor in the Long Run 278
- Product Differentiation 279
- Advertising and Monopolistic Competition 280
- The Typical Monopolistic Competitor 281
- Price Discrimination 282
- Is the Monopolistic Competitor Inefficient? 286
- Economics in Action: Selling Status 288

## 12 Oligopoly 293

---

- Oligopoly Defined 293
- Two Measures of the Degree of Oligopolization 294
  - Concentration Ratios 295
  - The Herfindahl–Hirschman Index (HHI) 295
- The Competitive Spectrum 297
  - Cartels 297
  - Open Collusion 299
  - Covert Collusion 300
  - Price Leadership 301
  - Cutthroat Competition 302
- Game Theory 305
  - Conclusion 306
- Economics in Action: Cutthroat Competition in the College Textbook Market 306
- Appendix:** The Four Types of Competition: A Review 315
- Perfect Competition 315
- Monopoly 316
- Monopolistic Competition 316
- Oligopoly 316
- Perfect Competition versus Imperfect Competition 316
- Summary Tables 317

## 13 Corporate Mergers and Antitrust 321

---

- A Historical Perspective on Corporate Concentration 321
  - Antitrust 322
    - The Political Background 322
    - The Sherman Antitrust Act 322
    - The Clayton Antitrust Act 324
    - The Federal Trade Commission Act (1914) 324
  - Modern Antitrust 325
    - Partial Breakdown of the Rule of Reason 325
    - The 60 Percent Rule 326
    - Two Landmark Cases 326
    - European Antitrust 327
  - Types of Mergers 328
    - Horizontal Mergers 328
    - Vertical Mergers 328
    - Conglomerate Mergers 329
  - Deregulation 330
  - Corporate Misconduct 331
  - How Effective Is Antitrust? 331
  - The Trend toward Bigness 331
  - Economics in Action: Pharmaceutical Fraud 334
- 
- ## 14 Demand in the Factor Market 341
- 
- Derived Demand 341
  - Productivity 342
  - Prices of Substitute Resources 342
  - Marginal Revenue Product (MRP) 343
    - The MRP of the Perfect Competitor 344
    - The MRP of the Imperfect Competitor 347
  - Changes in Resource Demand 349
    - Changes in Resource Demand versus Changes in Quantity of Resource Demanded 349
    - The Four Reasons for Changes in Resource Demand 349
    - Optimum Resource Mix for the Firm 351
  - Economics in Action: Washing Machines and Women's Liberation 353



## 15 Labor Unions 359

---

### A Short History of the American Labor Movement 359

- The Early Years 359
- Key Labor Legislation 360
- Craft Unions versus Industrial Unions 362
- Union Organizing since the 1950s 364
- The Formation of Change to Win 366

### Jobs: Exportable and Nonexportable 367

### The Economic Power of Labor Unions 367

### The Economic Power of Large Employers 368

### Collective Bargaining 370

- Strikes, Lockouts, and Givebacks 370
- The Collective Bargaining Agreement 372
- The Strike 373
- Averting Strikes: Mediation and Arbitration 374

### Will You Ever Be a Member of a Labor Union? 374

### Economics in Action: The Card Check Law 375

## 16 Labor Markets and Wage Rates 381

---

### The Supply of Labor 382

- Noncompeting Groups 382
- The Theory of the Dual Labor Market 382
- The Backward-Bending Individual Labor Supply Curve 383
- The Market Supply of Labor 385

### The Demand for Labor 386

- The Marginal Revenue Product Schedule 386
- Nonhomogeneous Jobs and Compensating Pay Differentials 387

### Determination of the Wage Rate: Supply and Demand 388

### High Wage Rates and Economic Rent 390

### Real Wages versus Money Wages 391

### The Minimum Wage and the Living Wage 396

- The Minimum Wage Rate: 1938 to the Present 396
- Should There Be a Minimum Wage Rate? 397
- The Living Wage 399

### The Effects of Employment Discrimination on Wages 400

- Employment Discrimination against Women 400
- Employment Discrimination against African Americans 403
- Conclusion 403

### Economics in Action: The Education Gap 403

## 17 Rent, Interest, and Profit 409

---

### Rent 409

- What Is Land? 409
- How Is Rent Determined? 411
- Economic Rent 412
- Are Prices High because Rents Are High, or Are Rents High because Prices Are High? 413

### Interest 414

- What Is Capital? 414
- How Is the Interest Rate Determined? 414
- Interest Rates and Consumer Loans 415

### The Present Value of Future Income 417

### Profits 420

- How Are Profits Determined? 420
- How Large Are Profits? 420
- Theories of Profit 422
- Conclusion 424

### Economics in Action: Subprime, Fringe, and Payday Lending 425

## 18 Income Distribution and Poverty 431

---

### Income Distribution in the United States 432

- The Poor, the Middle Class, and the Rich 432
- Distribution of Wealth in the United States 436
- Distribution of Income: Equity and Efficiency 437
- What Determines Income Distribution? 438

### Poverty in America 439

- Poverty Defined 439
- Who Are the Poor? 442
- Where the Poor Live 443
- Child Poverty 443
- The Main Government Transfer Programs 445
- Theories of the Causes of Poverty 448
- The Conservative View versus the Liberal View 450
- Solutions 452

### Economics in Action 1: Will You Ever Be Poor? 456

### Economics in Action 2: The 1 Percent and the 99 Percent 457

## 19 International Trade 465

---

### Part I: A Brief History of U.S. Trade 466

- U.S. Trade before 1975 466
- U.S. Trade since 1975 466
- The Effect of the Great Recession on Our Balance of Trade 467
- U.S. Government Trade Policy 468

### Part II: The Theory of International Trade 469

- Specialization and Trade 469
- Absolute Advantage 470
- Comparative Advantage 470
- Absolute Advantage versus Comparative Advantage 472
- The Arguments for Protection 474
- Tariffs or Quotas 477
- Conclusion 479

### Part III: The Practice of International Trade 480

- What Are the Causes of Our Trade Imbalance? 480

### Part IV: Our Trade Deficit with Japan and China 483

- Japanese Trading Practices 484
- Our Trade Deficit with China 484
- Trading with China and Japan: More Differences than Similarities 485

### Final Word 486

- Free Trade in Word and Deed 486
- Reducing Our Trade Deficit 487

### Economics in Action 1: Buy American? 488

### Economics in Action 2: Globalization 488

## 20 International Finance 495

---

### The Mechanics of International Finance 495

- Financing International Trade 495
- The Balance of Payments 496

### Exchange Rate Systems 499

- The Gold Standard 499
- The Gold Exchange Standard, 1944–73 500
- The Freely Floating Exchange Rate System, 1973 to the Present 501
- How Well Do Freely Floating (Flexible) Exchange Rates Work? 505
- The Euro 505
- The Yen and the Yuan 505
- The Falling Dollar and the U.S. Trade Deficit 506

### Running Up a Tab in the Global Economy 509

- From Largest Creditor to Largest Debtor 509

### Living beyond Our Means 511


- A Codependent Relationship 511
- Why We Need to Worry about the Current Account Deficit 512

### Editorial: American Exceptionality 512

## Glossary 519

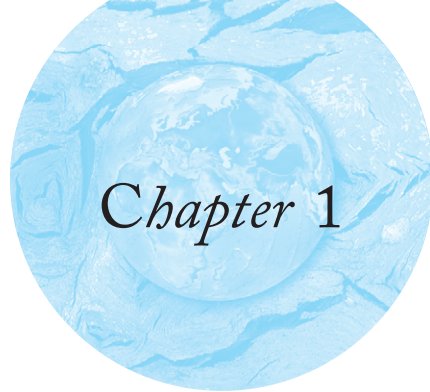
## Photo Credits 531

## Index 532



*Microeconomics*

*This page intentionally left blank*



# Chapter 1

## A Brief Economic History of the United States

**M**ore than two centuries ago, some Americans believed it was “manifest destiny” that the 13 states on the Eastern Seaboard would one day be part of a nation that stretched from the Atlantic to the Pacific. Was it also our manifest destiny to become the greatest economy in the history of the world?

### LEARNING OBJECTIVES

*After reading this chapter you should be able to:*

1. Summarize America’s economic development in the 19th century.
2. Describe the effect of the Great Depression on our economy and evaluate the New Deal measures to bring about recovery.
3. Discuss the impact of World War II on our economy.
4. List and discuss the major recessions we have had since World War II.
5. Summarize the economic highlights of each decade since the 1950s.
6. Differentiate the “new economy” from the “old economy.”
7. Assess America’s place in history.

PowerPoint Presentations, Chapter Quizzes, and 4-Color Graphs are available at [www.mhhe.com/slavin11e](http://www.mhhe.com/slavin11e), or scan here. Need a barcode reader? Try ScanLife, available in your app store.



### Introduction

“May you live in interesting times,” reputedly an ancient Chinese curse, could well describe the economic misfortunes that overtook us in late 2007 and continued for the next couple of years.

- Our worst economic downturn since the Great Depression.
- The bursting of the housing bubble.
- A financial crisis requiring over \$16 trillion in loans by the Federal Reserve and the U.S. Treasury.
- The mortgage crisis, threatening some 7 million American families with foreclosure.
- Over 15 million Americans officially unemployed at the bottom of the Great Recession.

Our economy is a study in contrasts. We have poverty in the midst of plenty; we have rapidly expanding industries like computer software and medical technology, and dying industries like shipbuilding, textiles, and consumer electronics; we won the cold war against communism, but we may be losing the trade war against China.

Which country has the largest economy in the world—the United States, China, or Japan? The correct answer is China, right? At least that’s what many Americans would

answer. Believe it or not, our national output is much greater than that of China and Japan combined.

America is the sole superpower and has one of the highest standards of living in the world. Communism—at least the version that was practiced in the Soviet Union and Eastern Europe—to borrow a phrase from Karl Marx, has been “swept into the dustbin of history.”

The baby-boom generation has earned higher incomes than any other generation in history. Indeed, Americans once considered it their birthright to do better than their parents. But that ended about 35 years ago, and a lot of young people are worrying about their futures.

In the decade of the 1990s our economy generated more than 22 million new jobs. But at the end of the first decade of the new millennium, there had been virtually no net gain of jobs.

Let’s sum up our economic circumstances in late 2013:

#### The economic downside

- We are running huge federal budget deficits.
- Our trade deficit has averaged more than \$500 billion over the last 5 years.
- We are borrowing nearly \$2 billion a day from foreigners to finance our trade and budget deficits.
- Unless Congress acts soon, our Social Security and Medicare trust funds will run out of money well before you reach retirement age.
- When you graduate, you may not be able to get a decent job.
- Our savings rate has averaged less than 3 percent a year since the new millennium.
- The real hourly wage (after inflation) of the average worker is about the same today as it was in 1973.

## The American Economy in the 19th Century

Those who cannot remember the past are condemned to repeat it.

—George Santayana—

What did the great philosopher mean by this? Perhaps he meant that those who do not learn enough history the first time around will be required to repeat History 101. But whatever he meant, it is clear that to understand our economy today, we need to know how it developed over the years.

### *Agricultural Development*

America has always had a large and productive agricultural sector. At the time of the American Revolution, 9 out of every 10 Americans lived on a farm; 100 years later, however, fewer than 1 out of every 2 people worked in agriculture. Today just 1 out of every 500 Americans is a full-time farmer. And yet our farms not only feed America but also produce a huge surplus that is sold abroad.

#### America had an almost limitless supply of land.

Unlike Europe, 200 years ago America had an almost limitless supply of unoccupied fertile land. The federal government gave away farmland—usually 160-acre plots (one-quarter of a square mile)—to anyone willing to clear the land and farm on it. Although sometimes the government charged a token amount, it often gave away the land for free.

The great abundance of land was the most influential factor in our economic development during the 19th century. Not only did the availability of very cheap or free land attract millions of immigrants to our shores, but it also encouraged early marriage and large families, since every child was an additional worker to till the fields and handle the animals. Even more important, this plenitude of land, compared to amount of labor, encouraged rapid technological development.



## Two Economic Conflicts Leading to the Civil War

In the decades before the Civil War, the economic interests of the North and South came into sharp conflict. Northern manufacturers benefited from high protective tariffs, which kept out competing British manufacturers. The Southern states, which had only a small manufacturing sector, were forced to buy most of their manufactured goods from the North and to pay higher prices than they would have paid for British goods had there been no tariff.\*

As the nation expanded westward, another conflict reached the boiling point: the extension of slavery into the new territories. In 1860, when Abraham Lincoln had been elected president, most of the land between the Mississippi River and the Pacific Ocean had not yet been organized into states. As newly formed territories applied for membership in the Union, the big question was whether they would come in as “free states” or “slave states.” Lincoln—and virtually all the other leaders of the new Republican Party—strenuously opposed the extension of slavery into the new territories of the West.

The Southern economy, especially cotton agriculture, was based on slave labor. The political leaders of the South realized that if slavery were prohibited in the new territories, it would be only a matter of time before these territories entered the Union as free states and the South was badly outvoted in Congress. And so, as Abraham Lincoln was preparing to take office in 1861, 11 Southern states seceded from the Union, touching off the Civil War, which lasted four years, cost hundreds of thousands of lives, and largely destroyed the Southern economy.

The two major consequences of the war were the freeing of 4 million black people who had been slaves and the preservation of the Union with those 11 rebel states. It would take the nation more than a century to overcome the legacies of this conflict.

\*Tariffs are fully discussed in the chapter on international trade.

When George Washington was inaugurated in 1789, there were about 4 million people living in the United States. By the time of the War of 1812, our population had doubled. It doubled again to 16 million in 1835 and still again by 1858: Our numbers continued to grow, but at a somewhat slower pace, reaching the 100 million mark in 1915 and the 200 million mark in 1968, and 300 million in 2006.

Although all regions of the United States remained primarily agricultural in the years following the Civil War, New England, the Middle Atlantic states, and the Midwest—with their already well-established iron, steel, textile, and apparel industries—were poised for a major industrial expansion that would last until the Great Depression. In contrast, the South, whose economy was based on the cash crops of cotton, tobacco, rice, and sugar, as well as on subsistence farming, remained primarily an agricultural region well into the 20th century. The South continued to be the poorest section of the country, a relative disadvantage that was not erased until the growth of the Sun Belt took off in the 1960s. (See the box titled “Two Economic Conflicts Leading to the Civil War.”)

Southern agriculture developed very differently from agriculture in the other regions of the nation. We know, of course, that most of the labor was provided by slaves whose ancestors had been brought here in chains from Africa. On the average, Southern farms were large. By 1860, four-fifths of the farms with more than 500 acres were in the South. The plantation owners raised commercial crops such as cotton, rice, sugar, and tobacco, while the smaller farms, which were much less dependent on slave labor, produced a wider variety of crops.

In the North and the West, self-sufficient, 160-acre family farms were most common. Eventually, corn, wheat, and soybeans became important commercial crops. But in the years following the Civil War, increasing numbers of people left the farms of the North to take jobs in manufacturing.

Times were bad for agriculture from the end of the Civil War until the close of the century. The government’s liberal land policy, combined with increased mechanization, vastly expanded farm output. The production of the nation’s three basic cash crops—corn, wheat, and cotton—rose faster than did the nation’s population through most of that

Southern economic development remained agricultural.

Bad times for agriculture

## *American Agricultural Technology*

In the 19th century, a series of inventions vastly improved farm productivity. In the late 1840s, John Deere began to manufacture steel plows in Moline, Illinois. These were a tremendous improvement over the crude wooden plows that had previously been used.

Cyrus McCormick patented a mechanical reaper in 1834. By the time of the Civil War, McCormick's reaper had at least quadrupled the output of each farm laborer. The development of the Appleby twine binder, the Marsh brothers' harvesting machine, and the Pitts thresher, as well as Eli Whitney's cotton gin, all worked to make American agriculture the most productive in the world.

The mechanization of American agriculture, which continued into the 20th century with the introduction of

the gasoline-powered tractor in the 1920s, would not have been possible without a highly skilled farm workforce. Tom Brokaw described the challenge that farmers faced using this technology:

Farm boys were inventive and good with their hands. They were accustomed to finding solutions to mechanical and design problems on their own. There was no one else to ask when the tractor broke down or the threshing machine fouled, no 1-800-CALLHELP operators standing by in those days.\*

\*Tom Brokaw, *The Greatest Generation* (New York: Random House, 1999), p. 92. The "greatest generation" was the one that came of age during the Great Depression and won World War II.

### Supply and demand

period. Why did production rise so rapidly? Mainly because of the rapid technological progress made during that period. (See the box titled "American Agricultural Technology.") This brings us to supply and demand, which is covered in Chapter 4 and explains why times were bad for agriculture despite expanded output. If the supply of corn increases faster than the demand for corn, what happens to the price of corn? It goes down. And this happened to wheat and cotton as well. Although other countries bought up much of the surpluses, the prices of corn, wheat, and cotton declined substantially from the end of the Civil War until the turn of the century.

### The completion of the transcontinental railroads

## *The National Railroad Network*

The completion of a national railroad network in the second half of the 19th century made possible mass production, mass marketing, and mass consumption. In 1850, the United States had just 10,000 miles of track, but within 40 years the total reached 164,000 miles. The transcontinental railroads had been completed, and it was possible to get virtually anywhere in the country by train. Interestingly, however, the transcontinental lines all bypassed the South, which severely retarded its economic development well into the 20th century.

In 1836, it took travelers an entire month to get from New York to Chicago. Just 15 years later, they could make the trip by rail in less than two days. What the railroads did, in effect, was to weave the country together into a huge social and economic unit, and eventually into the world's first mass market (see the box titled "Mass Production and Mass Consumption").

John Steele Gordon describes the economic impact of the railroads:

Most East Coast rivers were navigable for only short distances inland. As a result, there really was no "American economy." Instead there was a myriad of local ones. Most food was consumed locally, and most goods were locally produced by artisans such as blacksmiths. The railroads changed all that in less than 30 years.<sup>1</sup>

<sup>1</sup>John Steele Gordon, "The Golden Spike," *Forbes ASAP*, February 21, 2000, p. 118.

## Mass Production and Mass Consumption


**Mass production** is possible only if there is also **mass consumption**. In the late 19th century, once the national railway network enabled manufacturers to sell their products all over the country, and even beyond our shores, it became feasible to invest in heavy machinery and to turn out volume production, which, in turn, meant lower prices. Lower prices, of course, pushed up sales, which encouraged further investment and created more jobs. At the same time, productivity, or output per hour, was rising, which justified companies in paying higher wages, and a high-wage workforce could easily afford all the new low-priced products.

Henry Ford personified the symbiotic relationship between mass production and mass consumption. Selling millions of cars at a small unit of profit allowed Ford to keep prices low and wages high—the perfect formula for mass consumption.

So we had a mutually reinforcing relationship. Mass consumption enabled mass production, while mass production enabled mass consumption. As this process unfolded, our industrial output literally multiplied, and our standard of living soared. And nearly all of this process took place from within our own borders with

only minimal help from foreign investors, suppliers, and consumers.

After World War II, the Japanese were in no position to use this method of reindustrialization. Not only had most of their plants and equipment been destroyed by American bombing, but also Japanese consumers did not have the purchasing power to buy enough manufactured goods to justify mass production of a wide range of consumer goods. So the Japanese industrialists took the one course open to them: As they rebuilt their industrial base, they sold low-priced goods to the low end of the American market. In many cases they sold these items—textiles, black-and-white TVs, cameras, and other consumer goods—at half the prices charged in Japan.

 Japanese consumers were willing to pay much higher prices for what was often relatively shoddy merchandise, simply because that was considered the socially correct thing to do. Imagine American consumers acting this way! Within a couple of decades, Japanese manufacturers, with a virtual monopoly in their home market and an expanding overseas market, were able to turn out high-volume, low-priced, high-quality products. We will look much more closely at Japanese manufacturing and trade practices in the chapter on international trade.

Before railroads, shipping a ton of goods 400 miles could easily quadruple the price. But by rail, the same ton of goods could be shipped in a fraction of the time and at one-twentieth of the cost.

### *The Age of the Industrial Capitalist*

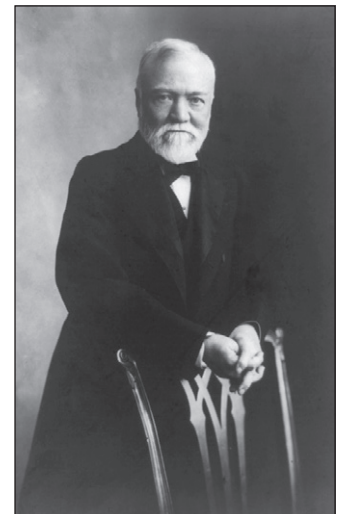
The last quarter of the 19th century was the age of the industrial capitalist. The great empire builders—Carnegie (steel), DuPont (chemicals), McCormick (farm equipment), Rockefeller (oil), and Swift (meat-packing), among others—dominated this era. John D. Rockefeller, whose exploits will be discussed in the chapter on corporate mergers and antitrust, built the Standard Oil Trust, which controlled 90 percent of the oil business. In 1872, just before Andrew Carnegie opened the Edgar Thomson works, the United States produced less than 100,000 tons of steel. Only 25 years later, Carnegie alone was turning out 4 million tons, almost half of the total American production. Again, as supply outran demand, the price of steel dropped from \$65 to \$20 a ton.

The industrial capitalists not only amassed great economic power, but abused that power as well. Their excesses led to the rise of labor unions and the passage of antitrust legislation.<sup>2</sup>

One of the most important changes in our industrial history took place late in the 19th century, with the transition from private electric generators to centralized, utility-based power production. Freed of the need to invest in expensive electric generators,

**Mass production** creates the output of huge quantities of a good at very low cost per unit.

**Mass consumption** of a good is the purchase of large quantities of that good at very low prices.



Andrew Carnegie, American industrial capitalist

<sup>2</sup>See the chapters on labor unions and antitrust in *Economics* and *Microeconomics*.

companies could secure as much electric power as they needed through a simple power-line hookup. Now even the smallest start-up manufacturers could compete with the great industrial capitalists.

Sometime in the 1880s our economy became the largest in the world. Over the course of the next century our lead would continue to grow.

## The American Economy in the 20th Century

On the world's technological cutting edge

By the turn of the century, America had become an industrial economy. Fewer than 4 in 10 people still lived on farms. We were among the world's leaders in the production of steel, coal, steamships, textiles, apparel, chemicals, and agricultural machinery. Our trade balance with the rest of the world was positive every year. While we continued to export most of our huge agricultural surpluses to Europe, increasingly we began to send the countries of that continent our manufactured goods as well.

We were also well on our way to becoming the world's first mass-consumption society. The stage had been set by the late-19th-century industrialists. At the turn of the 20th century, we were on the threshold of the automobile age (see the box titled "The Development of the Automobile Industry"). The Wright brothers would soon be flying their plane at Kitty Hawk, but commercial aviation was still a few decades away.

American technological progress—or, if the South can forgive me, Yankee ingenuity—runs the gamut from the agricultural implements previously mentioned to the telegraph, the telephone, the radio, the TV, and the computer. It includes the mass-production system perfected by Henry Ford, which made possible the era of mass consumption and the high living standards that the people of all industrialized nations enjoy today. America has long been on the world's technological cutting edge, as well as being the world's leader in manufacturing.

### *The Development of the Automobile Industry*

Nothing is particularly hard if you divide it into small jobs.

—Henry Ford—

Who was the first automobile manufacturer to use a division of labor and an assembly line? Was it Henry Ford? Close, but no cigar. It was Ransom E. Olds,\* in 1901, when he started turning out Oldsmobiles on a mass basis. Still another American auto pioneer, Henry Leland, believed it was possible and practical to manufacture a standardized engine with interchangeable parts. By 1908, he did just that with his Cadillac.

Henry Ford was able to carry mass production to its logical conclusion. His great contribution was the emphasis he placed on an expert combination of accuracy, continuity, the moving assembly line, and speed, through the careful timing of manufacturing, materials handling, and assembly. The assembly line speeded up work by breaking down the automaking process into a series of simple, repetitive operations.

When Ford introduced a moving assembly line—the first ever used for large-scale manufacturing—this

innovation reduced the time it took to build a car from more than 12 hours to just 30 minutes. It was inspired by the continuous-flow production methods used in breweries, flour mills, and industrial bakeries, as well as in the disassembly of animal carcasses in Chicago's meat-packing plants. By installing a moving conveyer belt in his factory, Ford enabled his employees to build cars one piece at a time, instead of one car at a time. The new technique allowed individual workers to stay in one place and perform the same task repeatedly on multiple vehicles that passed by them.

Back in 1908, only 200,000 cars were registered in the United States. Just 15 years later, Ford built 57 percent of the 4 million cars and trucks produced. But soon General Motors supplanted Ford as the country's number one automobile firm, a position it continues to hold. In 1929, motor vehicle production peaked at 5.3 million units, a number that was not reached again until 1949.

\*In earlier editions I mistakenly attributed these feats—as well as the introduction of the moving assembly line—to Henry Olds. A student, who carefully researched these questions, found that it was Henry Ford who introduced the moving assembly line.

This technological talent, a large agricultural surplus, the world's first universal public education system, and the entrepreneurial abilities of our great industrialists combined to enable the United States to emerge as the world's leading industrial power before the turn of the 20th century. Then, too, fortune smiled on this continent by keeping it out of harm's way during the war. This same good fortune recurred during World War II; so, once again, unlike the rest of the industrial world, we emerged from the war with our industrial plant intact.

America's large and growing population has been extremely important as a market for our farmers and manufacturers. After World War II, Japanese manufacturers targeted the American market, while the much smaller Japanese market remained largely closed to American manufactured goods. Japan—with less than half our population and, until very recently, much less purchasing power than the United States—largely financed its industrial development with American dollars. (See again the box titled “Mass Production and Mass Consumption.”)

## The Roaring Twenties

World War I ended on November 11, 1918. Although we had a brief depression in the early 1920s, the decade was one of almost unparalleled expansion, driven largely by the automobile industry. Another important development in the 1920s was the spreading use of electricity. In 1917, just one in four homes had electricity; by 1929 nearly three out of every four homes in America had been wired and were now using electrical appliances. The telephone, radio, phonograph, toaster, refrigerator, and other conveniences became commonplace during the 1920s.

Between 1921 and 1929, national output rose by 50 percent and most Americans thought the prosperity would last forever. The stock market was soaring, and instant millionaires were created every day, at least on paper. It was possible, in the late 1920s, to put down just 10 percent of a stock purchase and borrow the rest on margin from a stockbroker, who, in turn, borrowed that money from a bank. If you put down \$1,000, you could buy \$10,000 worth of stock. If that stock doubled (that is, if it was now worth \$20,000), you just made \$10,000 on a \$1,000 investment. Better yet, your \$10,000 stake entitled you to borrow \$90,000 from your broker, so you could now own \$100,000 worth of stock.

This was not a bad deal—as long as the market kept going up. But, as they say: What goes up must come down. And, as you well know, the stock market came crashing down in October 1929. Although it wasn't immediately apparent, the economy had already begun its descent into a recession a couple of months before the crash. And, that recession was the beginning of the **Great Depression**.

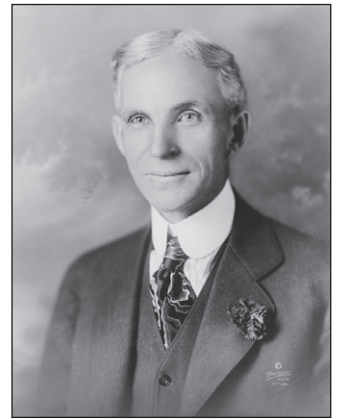
Curiously, within days after the crash, several leading government and business officials—including President Hoover and John D. Rockefeller—each described economic conditions as “fundamentally sound.” The next time you hear our economy described in those terms, you'll know we're in big trouble.

## The 1930s: The Great Depression

Once upon a time my opponents honored me as possessing the fabulous intellectual and economic power by which I created a worldwide depression all by myself.

—President Herbert Hoover—

By the summer of 1929, the country had clearly built itself up for an economic letdown. Between 1919 and 1929, the number of cars on the road more than tripled, from fewer than 8 million to nearly 27 million—almost one automobile for every household in the nation. The automobile market was saturated. Nearly three out of four cars on the road were less than six years old, and model changes were not nearly as important then as they are today. The tire industry had been overbuilt, and textiles were suffering from



Henry Ford, American automobile manufacturer

The postwar boom

The spreading use of electricity

How to become a millionaire in the stock market

*[T]he chief business of the American people is business.*

—President Calvin Coolidge

The **Great Depression**, which lasted for the entire decade of the 1930s, was a period of extremely high unemployment, falling prices, and a very low level of economic activity.

The August 1929 recession



overcapacity. Residential construction was already in decline, and the general business investment outlook was not that rosy.

Had the stock market not crashed and had the rest of the world not gone into a depression, we might have gotten away with a moderate business downturn. Also, had the federal government acted more expeditiously, it is quite possible that the prosperity of the 1920s, after a fairly short recession, could have continued well into the 1930s. But that's not what happened. What did happen completely changed the lives of the people who lived through it, as well as the course of human history itself.

#### The Dust Bowl and the "Okies"

Prices began to decline, investment in plant and equipment collapsed, and a drought wiped out millions of farmers. In fact, conditions grew so bad in what became known as the Dust Bowl that millions of people from the Midwest just packed their cars and drove in caravans to seek a better life in California. Their flight was immortalized in John Steinbeck's great novel *The Grapes of Wrath*, which was later made into a movie. Although most of these migrants came from other states, they were collectively called Okies, because it seemed at the time as if the entire state of Oklahoma had picked up and moved west.

#### The bank failures

There had been widespread bank failures in the late 1920s and by the end of 1930, thousands of banks had failed and the generally optimistic economic outlook had given way to one of extreme pessimism. From here on, it was all downhill. By the beginning of 1933, banks were closing all over the country; by the first week in March, every single bank in the United States had shut its doors.

#### Hitting bottom



Herbert Hoover, 31st president of the United States

#### Herbert Hoover and the Depression

When the economy hit bottom in March 1933, national output was about one-third lower than it had been in August 1929. The official unemployment rate was 25 percent, but official figures tell only part of the story. Millions of additional workers had simply given up looking for work during the depths of the Great Depression, as there was no work to be had. Yet according to the way the government compiles the unemployment rate, these people were not even counted since they were not actually looking for work.<sup>3</sup>

The Depression was a time of soup kitchens, people selling apples on the street, large-scale homelessness, so-called hobo jungles where poor men and women huddled around garbage-pail fires to keep warm, and even fairly widespread starvation. "Are you working?" and "Brother, can you spare a dime?"<sup>4</sup> were common greetings. People who lived in collections of shacks made of cardboard, wood, and corrugated sheet metal scornfully referred to them as Hoovervilles. Although President Herbert Hoover did eventually make a few halfhearted attempts to get the economy moving again, his greatest contribution to the economy was apparently his slogans. When he ran for the presidency in 1928, he promised "two cars in every garage" and "a chicken in every pot." As the Depression grew worse, he kept telling Americans that "prosperity is just around the corner." It's too bad he didn't have Frank Perdue in those days to place a chicken in every pot.

While most Americans to this day blame President Hoover for not preventing the Depression, and then, doing too little to end it, perhaps the single biggest cause of the Depression was that the Federal Reserve let the money supply fall by one-third, causing deflation. And to make things still worse, it did nothing to prevent an epidemic of bank failures, causing a credit crisis.

#### Why did the downturn reverse itself?

*I see one-third of a nation  
ill-housed, ill-clad, ill-nourished.*

—Franklin D. Roosevelt

Second Inaugural Address,  
January 1937

Why did the downturn of August 1929 to March 1933 finally reverse itself? Well, for one thing, we were just about due. Business inventories had been reduced to rock-bottom levels, prices had finally stopped falling, and there was a need to replace some plants and equipment. The federal budget deficits of 1931 and 1932, even if unwillingly incurred, did provide a mild stimulus to the economy.<sup>5</sup>

Clearly a lot of the credit must go to the new administration of Franklin D. Roosevelt, which reopened the banks, ran large budget deficits, and eventually created government job

<sup>3</sup>How the Department of Labor computes the unemployment rate is discussed in the chapter on economic fluctuations in *Economics and Macroeconomics*. In Chapter 2, we'll be looking at the concept of full employment, but you can grasp intuitively that when our economy enters even a minor downturn, we are operating at less than full employment.

<sup>4</sup>"Brother, Can You Spare a Dime?" was a Depression era song written by Yip Harburg and Jay Gorney.

<sup>5</sup>In Chapter 12 of *Economics and Macroeconomics* we'll explain how budget deficits stimulate the economy.



## The New Deal

When Franklin D. Roosevelt ran for president in 1932, he promised “a new deal for the American people.” Action was needed, and it was needed fast. In the first 100 days Roosevelt was in office, his administration sent a flurry of bills to Congress that were promptly passed.

The **New Deal** is best summarized by the three Rs: relief, recovery, and reform. Relief was aimed at alleviating the suffering of a nation that was, in President Roosevelt’s words, one-third “ill-fed, ill-clothed, and ill-housed.” These people needed work relief, a system similar to today’s workfare (work for your welfare check) programs. About 6 million people, on average, were put to work at various jobs ranging from raking leaves and repairing public buildings to maintaining national parks and building hydroelectric dams. Robert R. Russell made this observation:

The principal objects of work-relief were to help people preserve their self-respect by enabling them to stay off the dole and to maintain their work habits against the day when they could again find employment in private enterprises. It was also hoped that the programs, by putting some purchasing power into the hands of workers and suppliers of materials, would help prime the economic pump.\*

The economic recovery could not begin to take off until people again began spending money. As these 6 million Americans went back to work, they spent their

paychecks on food, clothing, and shelter, and managed to pay off at least some of their debts. The most lasting effect of the New Deal was reform. The Securities and Exchange Commission (SEC) was set up to regulate the stock market and avoid a repetition of the speculative excesses of the late 1920s, which had led to the great crash of 1929. After the reform, bank deposits were insured by the Federal Deposit Insurance Corporation (FDIC) to prevent future runs on the banks by depositors, like those experienced in the early 1930s. Also, an unemployment insurance benefit program was set up to provide temporarily unemployed people with some money to tide them over. The most important reform of all was the creation of Social Security. Although even today retired people need more than their Social Security benefits to get by, there is no question that this program has provided tens of millions of retired people with a substantial income and has largely removed workers’ fears of being destitute and dependent in their aging years.

The New Deal was a much greater success in the long run than in the short run. While New Deal spending programs did not end the Depression, the reforms it put in place laid the foundation for unprecedented economic growth and broadly shared prosperity in the years after World War II.

\*Robert R. Russell, *A History of the American Economic System* (New York: Appleton-Century-Crofts, 1964), p. 547.

programs that put millions of Americans back to work (see the box titled “The New Deal”). Recognizing a crisis in confidence, Roosevelt said, “The only thing we have to fear is fear itself.” Putting millions of people back to work was a tremendous confidence builder. A 50-month expansion began in March 1933 and lasted until May 1937. Although output did finally reach the levels of August 1929, more than 7 million people were still unemployed.

By far, the most important reason for the success of the New Deal’s first four years was the massive federal government spending that returned millions of Americans to work. This huge infusion of dollars into our economy was just what the doctor ordered. In this case, the doctor was John Maynard Keynes, the great English economist, who maintained that it didn’t matter *what* the money was spent on—even paying people to dig holes in the ground and then to fill them up again—as long as enough money was spent. But in May 1937, just when it had begun to look as though the Depression was finally over, we plunged right back into it again.

What went wrong? Two things: First, the Federal Reserve Board of Governors, inexplicably more concerned about inflation than about the lingering economic depression, greatly tightened credit, making it much harder to borrow money. Second, the Roosevelt administration suddenly got that old balance-the-budget-at-all-costs religion. Government spending was sharply reduced—the budget of the Works Progress Administration was cut in half—and taxes were raised. The cost of that economic orthodoxy—which would have made sense during an economic boom—was the very sharp and deep **recession** of 1937–38.

The **New Deal** was a massive federal program that provided jobs to the unemployed, raised spending, and created important financial and economic institutions.

### The recession of 1937–38

A **recession** is a decline in real GDP for two consecutive quarters.