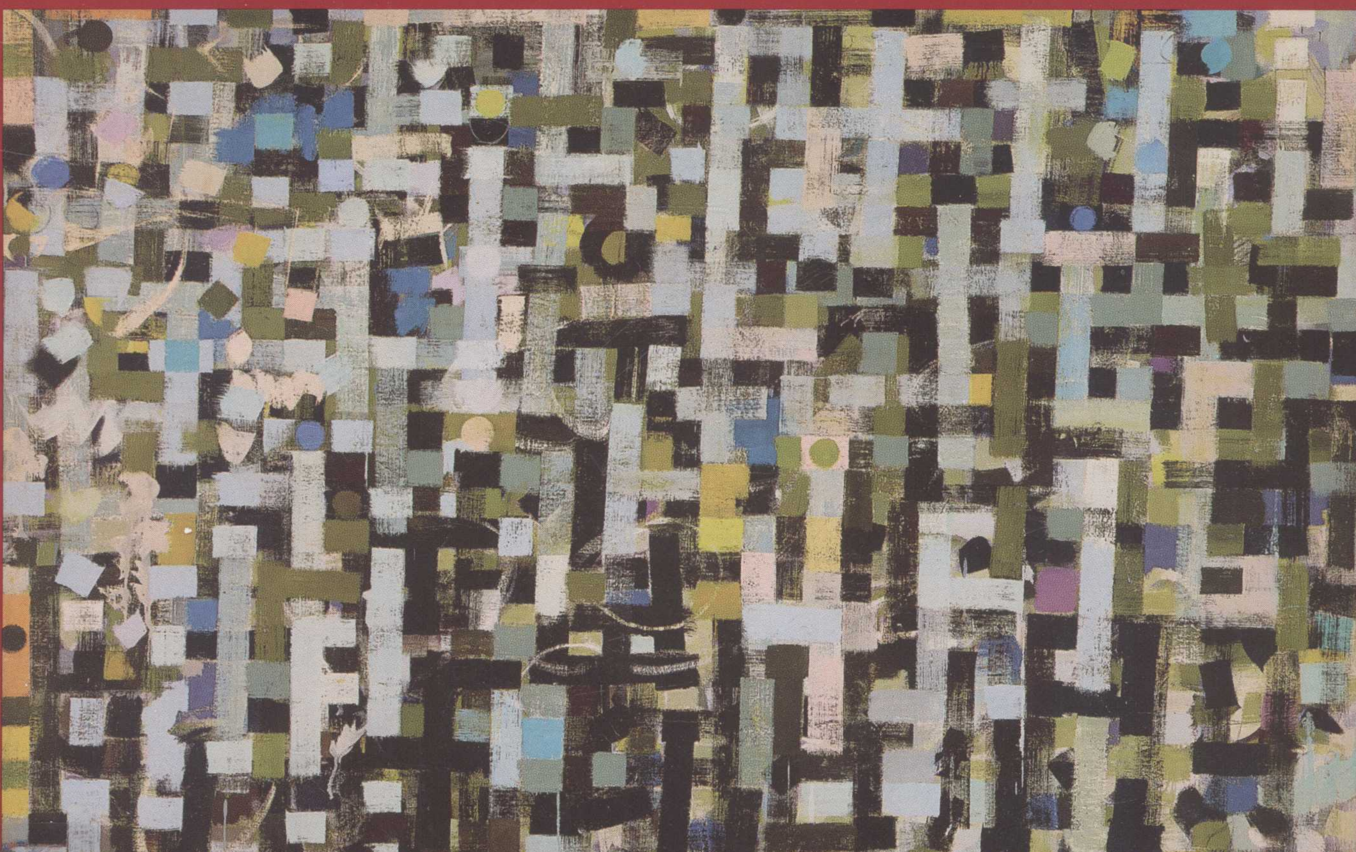
# EDWIN MANSFIELD

Principles of

# MACROECONOMICS



SEVENTH EDITION

# PRINCIPLES OF MACROECONOMICS

EDWIN MANSFIELD

DIRECTOR / CENTER FOR ECONOMICS AND TECHNOLOGY / UNIVERSITY OF PENNSYLVANIA

SEVENTH EDITION

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To Edward Deering Mansfield (1801–1880)
and his brother-in-law Charles Davies (1798–1876)
neither of whom should be held responsible
for the views expressed here.



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# PRINCIPLES OF MACROECONOMICS

SEVENTH EDITION

# PREFACE

Textbooks, like firms and economies, do not change at a constant rate; instead, some revisions are minor, while others are extensive and fundamental. This seventh edition, while it shares the same objectives as its predecessor, is a very substantial departure from it. Eight of the major changes are briefly described below.

1. *Additional material on the New Classical Macroeconomics (including real business cycle models) and New Keynesianism.* There is now a new chapter (Chapter 14) devoted almost entirely to these topics, which were given much less attention in the previous edition.

2. *New chapter on the federal budget deficit.* There is now an entire chapter (Chapter 15) dealing with the size and effects of the federal deficit, including treatments of Ricardian equivalence and a variety of other topics relating to theoretical and policy differences in this area.

3. *Expanded treatment of the role of expectations.* A much more complete discussion of the theory of rational expectations is provided in Chapter 13, together with a thorough treatment of the role of expectations in models of inflation and unemployment.

4. *Much more emphasis on aggregate demand and supply curves.* Beginning now in Chapter 5, aggregate demand and supply curves are used and emphasized; the simple Keynesian model is confined largely to Chapter 6, where it is used mainly to derive the aggregate demand curve.

5. *Earlier and more continual discussion of the controversies between policy activists and their critics.* From Chapter 5 on, there are now continual references to the differences of opinion between activists and their critics; this new emphasis both enhances the liveliness of the text and makes the discussion more balanced and complete.

6. *Open economy assumed from the start.* Beginning in Chapter 4, the models presented in the text include exports and imports; and early in our discussion of fiscal policy (Chapter 9) and monetary policy (Chapter 12) we take up the workings of each type of policy, recognizing that the United States is an open economy.

7. *Added emphasis on relationship between business fluctuations and economic growth.* In keeping with the recent tendency of economists to view business fluctuations and growth as part of essentially the same dynamic process, the material on economic growth has been moved forward to Chapter 16 and has been integrated more clearly with the discussion of business fluctuations.

8. *Improved organization.* Many chapters have been moved to improve the organization of the book. The material on economic growth has been moved to Chapter 16, and the chapters on government spending and taxation have been moved to Chapters 19, 20, and 21.

Based on the positive reaction of both students and instructors to the sections on central economic problems in the previous edition, each two or more pages long, this feature has been maintained and refined. Five of the new multipage inserts on *Central Economic Issues* are new: (1) How to Make the Transition from Communism to Capitalism: The Case of Poland, (2) Will the Banks Go the Way of the Savings and Loan Industry? (3) America's Chronic Trade Deficit (completely rewritten), (4) Medical Care: Can Benefit-Cost Analysis Be Used? and (5) What Should Be Done about Global Warming? These new features should be of great use in whetting the interests of students and in helping them to thread their way through complex contemporary issues.

As in previous editions, the boxed inserts and examples are designed to make economics more relevant and interesting to students. Well over half of the boxed inserts are new: (1) Toting up the Costs of the War against Saddam Hussein, (2) How Asymmetric Information Affects the Market for Used Cars, (3) The First Estimates of GNP in the United States, (4) Why So Much Unemployment in Europe? (5) How a Shift in the Consumption Function Can Upset a Forecast, (6) President Eisenhower and Automatic Stabilizers, (7) The Failure of the Knickerbocker Trust in 1907, (8) *P*-Star: A Useful Guide to Long-Run Inflation? (9) Expectations and Interest Rates, (10) The Design of Macroeconomic Policy: The CEA Criticizes Its Predecessors, (11) How Inflation Distorts the Deficit, (12) Should Eisenhower Have Tried to Balance the Budget? (13) Restrictions on U.S. Imports of Japanese Autos, (14) International Policy Coordination, (15) Are Foreigners Buying up the United States at Bargain Prices? (16) Why the Tennessee Valley Authority? and (17) The Clash over the Protection of Intellectual Property. These inserts take up a wide variety of topics of current interest, as well as a number of new theoretical topics. They are very important in showing how economics can be used to help solve a host of major problems. Also, one of the boxed examples is new: (1) Can Profit-Sharing Be Used to Reduce Unemployment?

Most textbooks do not encourage the student to get involved in the subject. They simply lay out the material, leaving the student to absorb it passively. In previous editions, I have invited students to *do* economics in order to understand it better. Scores of examples were provided, each describing a real (or realistic) situation and then calling on the student to work through the solution. Also, in each chapter there were two problem sets, both designated "Test Yourself" that enabled students to check their comprehension of what they had just read. The reaction of instructors and students was very favorable, and the emphasis on doing economics is maintained in this Seventh Edition.

All of the empirical and policy-oriented chapters have been updated. Since a text should reflect current conditions and concerns, the government policies in all the major economic areas—fiscal, monetary, incomes, farm, energy, environmental, and international—are reviewed in depth. The latest data available have been incorporated in the tables, diagrams, and discussions, while revisions in sections on economic forecasting, reserve requirements, and a variety of other topics have brought them into line with current developments.

As supplements to this text, I have prepared both a book of readings and a study guide containing problems and exercises. The book of readings is *Principles of Macroeconomics: Readings, Issues, and Cases,* Fourth Edition. It provides a substantial set of supplementary articles, carefully correlated with the text for instructors who want to introduce their students to the writings of major contemporary economists. It is designed to acquaint the student with a wide range of economic analysis, spanning the spectrum from the classics to the present-day radicals. The emphasis, as in the text, is on integrating theory, measurement, and applications.

The *Study Guide*, Seventh Edition, contains, in addition to problems, review questions, and tests, a large number of cases that require the student to work with quantitative material in applying concepts to practical situations. Both students and instructors have reported that such cases are important in motivating students and illuminating economic theory.

An *Instructor's Manual* has been prepared by Michael Claudon of Middlebury College to accompany the text. A *Test Item File*, prepared by Herbert Gishlick of Rider College, is available both in printed form and on computer disk. *Transparency Masters* are also available to instructors who adopt the text.

Finally, it is a pleasure to acknowledge the debts that I owe to the many teachers at various colleges and universities who have commented in detail on various parts of the manuscript. The first, second, and third editions benefited greatly from the advice I received from the following distinguished economists, none of whom is responsible, of course, for the outcome: Wallace Atherton, California State University at Long Beach; Bela Balassa, Johns Hopkins; Robert Baldwin, University of Wisconsin (Madison); Arthur Benavie, North Carolina; Lee Biggs, Montgomery College; Donald Billings, Boise State; William Branson, Princeton; Martin Bronfenbrenner, Duke; Edward Budd, Penn State; Phillip Burstein, Purdue; Wade Chio, U.S. Air Force Academy; Michael Claudon, Middlebury; Warren Coates, Federal Reserve; Richard Cooper, Yale; Alan Deardorff, Michigan; William Desvousges, Missouri (Rolla); F. Trenery Dolbear, Brandeis; Robert Dorfman, Harvard; James Duesenberry, Harvard; William Dugger, North Texas State University; Richard Easterlin, University of Southern California; Jonathan Eaton, Princeton; David Fand, Wayne State; Judith Fernandez, University of California (Berkeley); David Gay, University of Arkansas; Howard A. Gilbert, South Dakota State University; Gerald Goldstein, Northwestern; Robert Gordon, Northwestern; Edward Gramlich, Michigan; Herschel Grossman, Brown; William Gunther, Alabama; Jerry Gustafson, Beloit; Judith Herman, Queens College; Alan Heston, University of Pennsylvania; Albert Hirschman, Harvard; Ronald Jones, Rochester; John Kareken, Minnesota; Ann Krueger, Duke; Robert Kuenne, Princeton; Simon Kuznets, Harvard; William Leonard, St. Joseph's; Richard Levin, Yale; Raymond Lubitz, Columbia and the Federal Reserve; John F. MacDonald, Illinois (Chicago Circle); Sherman Maisel, University of California (Berkeley); Leonard Martin, Cleveland State University; Thomas Mayer, University of California (Davis); William McEachern, University of Connecticut; Joseph McKinney, Baylor; Edward McNertney, Texas Christian University; Steven Morrison, University of California (Berkeley); John Murphy, Canisius; Arthur Okun, Brookings Institution; Lloyd Orr, Indiana; R. D. Peterson, Markenomics Associates (Fort Collins); E. Dwight Phaup, Union College; Roger Ransom, University of California (Berkeley); Charles Ratliff, Davidson College; Albert Rees, Sloan Foundation; Edward Renshaw, State University of New York (Albany); Anthony Romeo, Unilever; Vernon Ruttan, Minnesota; Warren St. James, Nassau County Community College; Steven Sacks, University of Connecticut; Allen Sanderson, William and Mary; David Schulze, Florida, Edward Shapiro, University of Toledo; William Shugart, Arizona; Paul Sommers, Middlebury; Nicolas Spulber, Indiana; Charles Tone, Swarthmore; Richard Sutch, University of California (Berkeley); Frank Tansey, City University of New York; Michael

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I would like to thank Elisabeth Allison of Harvard University and Nariman Behravesh of Oxford Economics USA for contributing the inserts that appear (over their initials) in various chapters, and Catherine Wick and W. Drake McFeely of W. W. Norton for their efficient handling of the publishing end of the work. As always, my wife, Lucile, has contributed an enormous amount to the completion of this book.

*Philadelphia, 1991* E.M.

# PART ONE

# INTRODUCTION TO ECONOMICS

# CONTENTS

## PART FOUR INTERNATIONAL ECONOMICS



## PART FIVE GOVERNMENT AND THE ECONOMY

C H A P T E R 1

# ECONOMIC PROBLEMS AND ANALYSIS

George Bernard Shaw, the great playwright, once said, "The only time my education was interrupted was when I was in school." Fortunately, economics, if properly presented, can contribute mightily to your education—and you can learn it without leaving school. Let's look at a sample of the major problems economists deal with; you'll find that each of them could have a big effect on your own life.

## ECONOMIC PROBLEMS: A SAMPLER

### Unemployment and Inflation

The history of the American economy is for the most part a story of growth. Our output—the amount of goods and services we produce annually—has grown rapidly over the years, giving us a standard of living that could not have been imagined a century ago. For example, output per person in the United States was about $22,000 in 1990; in 1900, it was much, much smaller. Nonetheless, the growth of output has not been steady or uninterrupted; instead, our output has tended to fluctuate and so has unemployment. In periods when output has fallen, thousands, even millions, of people have been thrown out of work. In the Great Depression of the 1930s over 20 percent of the labor force was unemployed (see Figure 1.1). Even in 1992, layoffs occurred in many areas.

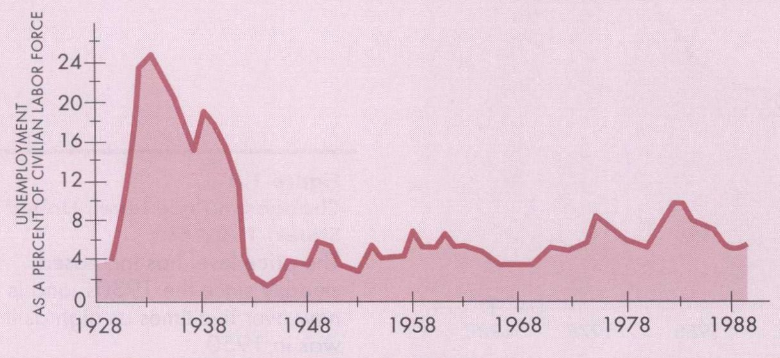


**Figure 1.1**
**Unemployment Rates, United States, 1929–90**
The unemployment rate has varied substantially from year to year. In the Great Depression, it reached a high of over 24 percent. In late 1990, it was about 6 percent.