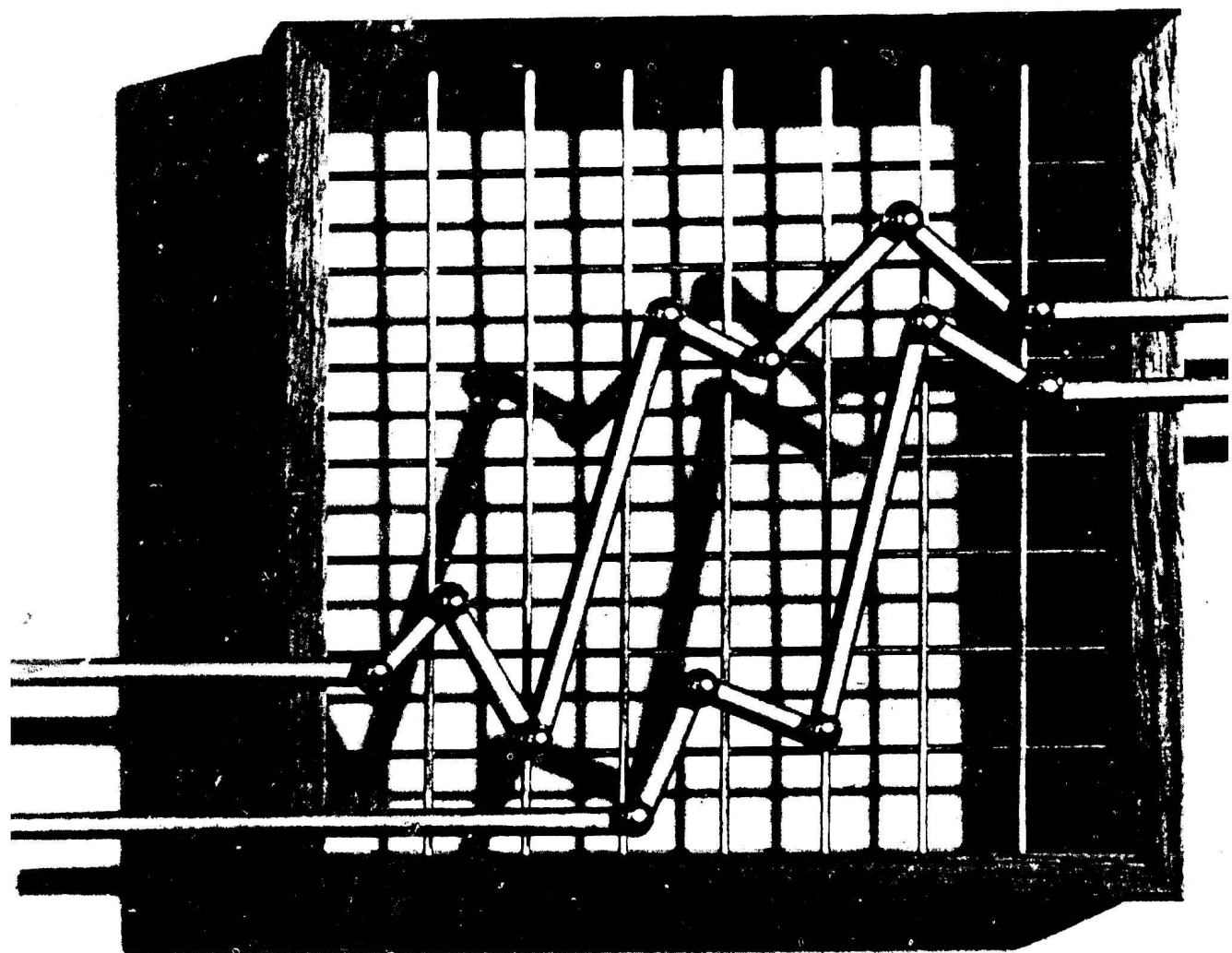


Economics

Sixth Edition

**Richard G. Lipsey
and Peter O. Steiner**



Economics

SIXTH EDITION

Richard G. Lipsey

Queen's University

Peter O. Steiner

The University of Michigan

SPONSORING EDITOR: John Greenman
SPECIAL PROJECTS EDITOR: Mary Lou Mosher
PROJECT EDITOR: Robert Ginsberg
DESIGNER: Emily Harste
SENIOR PRODUCTION MANAGER: Kewal K. Sharma
COMPOSITOR: Ruttle, Shaw & Wetherill
PRINTER AND BINDER: Kingsport Press
ART STUDIO: Danmark and Michaels Inc.

ECONOMICS, Sixth Edition

Copyright © 1981 by Richard G. Lipsey and Peter O. Steiner. Portions of this work were first published in the United Kingdom as *An Introduction to Positive Economics*, © 1963 by Richard G. Lipsey. All rights reserved. Printed in the United States of America. No part of this book may be used or reproduced in any manner whatsoever without written permission except in the case of brief quotations embodied in critical articles and reviews. For information address Harper & Row, Publishers, Inc., 10 East 53rd Street, New York, N.Y. 10022.

Library of Congress Cataloging in Publication Data

Lipsey, Richard G 1928—
Economics.

"Portions of this work were first published in the United Kingdom as *An introduction to positive economics*, © 1963 by Richard G. Lipsey."

Includes index.

1. Economics. I. Steiner, Peter Otto, 1922—
joint author. II. Title.

HB171.5.L733 1981 330 80-26594
ISBN 0-06-043969-1

HARPER INTERNATIONAL EDITION
35-04248

Preface

Our basic motivation in writing *Economics* always has been, and in this sixth edition still is, to provide a book that reflects the enormous changes in economics over the last 40 years. Economics is always changing, but in the years since World War II there has been a change of such importance that we do ourselves and our students a great disservice if we neglect it. During this period economics has moved very rapidly toward becoming a genuine science. We apply the term *science* neither to praise nor to castigate economics, but to describe its movement toward the characteristic that distinguishes any science: the systematic confrontation of theory with observation.

The quotation from Lord William Beveridge on the endpapers of this book is our text—in the preacher's sense of that word. Beveridge was scolding the profession in 1937, but things since then have clearly changed for the better. Today we all agree that economics is not a stage on which we parade our pet theories and ask to have them admired solely for their elegance or their conclusions, nor is it a container in which we collect quantities of unrelated institutional and statistical material about the economy. Economists are making a serious attempt to push back the frontiers of ignorance about the economic environment in order both to understand it and to control it. As we repeatedly discover, new problems and new phenomena challenge our existing knowledge. Economists must therefore continually be concerned with the relations among theory, institutions, and facts and must regard every theory as subject to empirical challenge.

A second major theme of this book concerns the relations between economic theory and economic policy. An appreciation of these relations is not new to economics. Indeed, many nineteenth-century economists expressed the modern view that although economic theory can show us some of the consequences of our actions, it can never show us what we ought to do. What is new today is the realization of how little can be said about policy on the basis of the purely qualitative theories, and the resulting successful application of the quantitative revolution of the last 40 years to matters of policy. Four decades of systematic observations have provided us with a much better idea of how things are related to one another quantitatively, and this knowledge has greatly increased the economist's power to say sensible and relevant things about public policy. This is not to deny that there are still great areas where economists' knowledge is painfully sparse, as the current debates about how to cope with the twin problems of unemployment and inflation, and on the relative efficacy of monetary and fiscal policy, remind us.

The third major feature of the book relates to the way we view modern students. We have tried in several different ways to be as honest with them as is possible within the confines of an introductory textbook. No subject worth studying is always easy, and we have not glossed over hard points just because they are hard. We have tried to follow Einstein's advice: make things as simple as possible, but not simpler. We do not approve of slipping particularly hard bits of analysis past students without letting them see what is happening and what has been assumed, nor do we approve of teaching them things they will have to unlearn if they go on in economics (a practice sometimes justified on the grounds that it is important to get to the big issues quickly).

Every student who continues in economics soon learns that, although economics has many triumphs to its credit, there are areas where present knowledge is woefully inadequate. It is sometimes argued that in an elementary course such inadequacies should be played down or altogether suppressed so that beginning students

will not lose faith in their subject. We reject this view. Both the students' education and our subject depend upon careful criticism. We have devoted some space to examining both sensible and foolish criticisms of economic theories. In doing this, we hope to give students some inkling of how it is possible to criticize effectively, and hence to improve, the existing body of economic theory.

Effective criticism of existing ideas is the springboard to progress in science, and we believe that an introduction to economics should also introduce students to methods for testing, criticizing, and evaluating the present state of the subject. We do not accept the notion that if you suggest the possibility of criticism to students, they will make hasty and confused criticisms. Students will always make criticisms and evaluations of their courses, and their criticisms are much more likely to be informed and relevant if they are given both practice and instruction in how to go about challenging in an effective, constructive manner what they have been taught rather than reverting to mere dogmatic assertion of error or irrelevance.

MAJOR REVISIONS IN THIS EDITION

This revision is the most comprehensive we have undertaken since the second edition. Users of the fifth edition will want to check the details of the new table of contents carefully. The most basic change is the revision of the core of macroeconomic theory and policy, as described in detail below. But other major changes have been made throughout the book. We believe our treatment is now more up-to-date, more relevant to contemporary issues, and easier for students. Only time—and your letters—will tell us if we are right.

Changes in Microeconomics

We have expanded Supply and Demand in Action to two chapters in order to add full discussions of the economics of the draft and of rent

control, and to add a summary section on General Lessons About Resource Allocation. The discussion of cost in Part Four has been reorganized, combining the long run and the very long run (formerly two chapters) into a single chapter and deferring the discussion of social cost to a greatly expanded Chapter 24, Benefits and Costs of Government Intervention in the Market Economy.

In this revision we have expanded the discussion of just when and how markets prove to be efficient and inefficient. This affects Chapters 14, 15, 18, and 24. We have also added a parallel discussion of government success and government failure (see especially the final half of Chapter 24).

Among the new applications of economics to current microeconomic problems is an extended discussion of OPEC and the price of gasoline (Chapter 17), and the proposal for a greatly expanded program of federally subsidized medical care (Chapter 25).

To make room for these and other additions, some of the fifth edition coverage of isoquants, long-run equilibrium, and monopolistic competition has been placed in appendixes, where these topics remain available to those who wish to assign them but can be readily omitted.

Changes in Basic Macroeconomics

Parts Eight, Nine, and Eleven of the fifth edition (Parts Eight, Nine, and Ten of this edition) have been totally rewritten to let aggregate demand and aggregate supply curves bear much of the weight of the analysis. This has a number of substantial advantages for teaching economics in the 1980s. First, the price level can be allowed to vary from the outset. Our experience is that contemporary students become increasingly restive with a treatment that holds the price level constant while most of national income theory is being covered. Second, it is much easier to deal with supply shocks and to explain stagflation. Third, the treatment of the definition and determination of national income can be greatly simplified. The present Chapter 27 is very much

simpler than its fifth edition counterpart, Chapter 26. Gone are the four increasingly complex economies (spendthrift, frugal, governed, and open) with which we formerly built the analysis. Gone too is the withdrawals-injections explanation of equilibrium. (These concepts, in the Swedish process-analysis tradition, have much to commend them, but many students find them harder than the more static approach embodied in aggregate demand and supply diagrams.)

No approach is without its own difficulties. The major difficulty with aggregate demand-supply lies in the instability of the aggregate supply curve. Although the economy can move up and down a given aggregate demand curve in response to shifts in aggregate supply, the reverse is not true. The aggregate supply curve will itself shift in response to some aggregate demand curve shifts, owing partly to the downward rigidity of prices. The complications inherent in this instability of the aggregate supply curve can often be sidetracked, where they are unimportant, by using a kinked aggregate supply curve (that suppresses the intermediate gradually rising portion) and this we do where we can. A second difficulty is that the downward slope of the aggregate demand curve cannot be fully explained until after money is introduced. The full explanation does not come, therefore, until Chapter 34. One important pedagogical payoff to our current approach is the overview of recent economic events that can be provided at the very outset, in Chapter 26, and in detail in Chapter 37.

The shift to an aggregate demand-aggregate supply approach pervades Part Eight (National Income and Fiscal Policy), Part Nine (Money, Banking, and Monetary Policy), and Part Ten (Macroeconomic Policy in Action: The Control of Inflation and Unemployment). The essential unity of these three parts had led us to put all three before the discussion of International Trade and Finance (Part Eleven).

In addition to this major change in approach, a number of other significant changes have been made in these parts. The chapter on fiscal policy has been heavily revised to eliminate policy debates from previous decades in favor of such

current debates as “Can and should the budget be balanced?” and “How can the stance of fiscal policy be judged?” The Role of Money in Macroeconomics (Chapter 34) has been completely rewritten. The explanation of the demand for money now is rooted in the analysis of Tobin rather than Keynes. The chapter includes the full explanation of the shape of the aggregate demand curve as well as an explanation of why continuous inflations require monetary validation. The Classical Quantity Theory of Money has been placed in an appendix. Chapter 36 provides an expanded discussion of employment, inflation, and the possible relation between the two. It is not analytically demanding. The rather difficult analysis of the Phelps-Friedman theory of expectational inflation and stagflation is now given in the appendix to Chapter 36.

Many students have read or heard that economists cannot understand the inflation-unemployment experience of the last decade. They will be pleasantly surprised in reading the wholly new Chapter 37, Macroeconomic Experience, to learn that economics can yield a good explanation of the decade-by-decade experience of the economy over the last half century.

The discussion of current policy issues in macroeconomics has been updated and expanded. Among the topics receiving expanded attention are wage and price controls, rational expectations, and the so-called natural rate of unemployment.

Changes in International Trade and Finance

This part was overdue for a major revision to reflect two major events. The first is the replacement of fixed exchange rates by managed, floating rates. The second is the rising importance of nontariff barriers to trade, which threaten a reversal of the long-term trend away from economic protectionism.

In this edition we have both updated and reorganized the trade material. We begin with the two “real” chapters: The Gains from Trade

(Chapter 39) and Barriers to Free Trade (Chapter 40). The first is little changed, the second is both expanded and modernized. The two monetary trade chapters are much changed. Chapter 41 shifts the emphasis from the balance of payments (important in a world of fixed exchange rates) to the theory and management of flexible exchange rates. Chapter 42 is an updated discussion of international monetary systems.

TEACHING AIDS

Tag lines and captions for figures and tables. The boldface tag line below the figure or table indicates succinctly the central conclusion intended by the illustration; the lightface caption provides information needed to reach that conclusion. Titles, tag lines, and captions are, with the figure or table, a self-contained set, and many students find them a useful device for reviewing a chapter.

Boxes. The material in green “boxes” contains examples or materials that are relevant extensions of the text narrative but need not be read in sequence.

End-of-chapter material. Each chapter contains a Summary, a list of Topics for Review, and a set of Discussion Questions. The questions are particularly useful for class discussion or for “quiz sections.” They are answered in the Instructor’s Manual.

Mathematical notes. Mathematical notes to the body of the text are collected in a self-contained section at the end of the book. Since mathematical notation and derivation is not required to understand the principles of economics, but is helpful in more advanced work, this seems to us to be a sensible arrangement. It provides clues to the uses of mathematics for the increasing numbers of students who come to beginning economics with some background in math, without encumbering the text with notes that may appear formidable to those who find mathematics arcane or

frightening. Students with a mathematical background have many times told us they find the notes helpful.

Glossary. The glossary covers widely used definitions of economic terms. Because some users treat micro- and macroeconomics in that order, and others in reverse order, words in the glossary are printed in boldface type when they are first mentioned in *either half* of the text.

Endpapers. Inside the front cover is a list of the most commonly used abbreviations in the text. Inside the back cover is a set of useful data about the U.S. economy.

Supplements

Our book is accompanied by a workbook, *Study Guide and Problems*, prepared by Professor Dascomb R. Forbush and Professor Frederic C. Menz. The workbook is designed to be used either in the classroom or by the students working on their own.

An *Instructor's Manual*, prepared by us, and a *Test Bank*, prepared under our supervision, are available to instructors adopting the book. The Test Bank is also available in a computerized form known as ACCESS; contact the publisher for details.

USING THE BOOK

This textbook reflects to some extent the way its authors would teach their own courses. Needs of students differ; some want to have material that goes beyond the average class level, but others have gaps in their backgrounds. To accommodate the former, we have included more material than we would assign to every student. Also, because there are many different kinds of first-year economics courses in colleges and universities, we have included more material than normally would be included in any single course. Requests and suggestions from users of previous editions have prompted us to include some additional alternative material.

Although teachers can best design their own courses, it may be helpful if we indicate certain views of our own as to how this book *might* be adapted to different courses.

Sequence

Because the choice of order between macro and micro is partly a personal one, it cannot be decided solely by objective criteria. We believe that in the 1980s there are good reasons for preferring the micro-macro order. Whereas in the immediate post-World War II years, the major emphasis was on the development of both the theory and the policy implications of Keynesian economics, the thrust over the last 20 years has been to examine the micro underpinnings of macro functions and to erect macroeconomics on a firmer base of micro behavioral relations. Changes have occurred not only in economic theory but in the problems that excite students. Although macroeconomic problems such as inflation and unemployment are still of great concern, many of the problems that students find most challenging today—the plight of the cities, poverty, pollution, and managing wage and price controls—are microeconomic in character. The micro-macro order, moreover, reflects the historical evolution of the subject. A century of classical and neoclassical development of microeconomics preceded the Keynesian development of macroeconomics.

For those who prefer the macro-micro order and who wish to reverse the order of our book, we have attempted to make reversibility virtually painless. The overview chapter that ends Part One has been built up to provide an improved base on which to build either the microeconomics of Part Two or the macroeconomics of Part Eight. Chapter 5 is worth assigning after Chapter 4, even in macro-first courses. Where further microeconomic concepts are required—as in the macro investment chapter—we have added brief sections to make the treatment self-contained, while providing review material for those who have been through the microeconomic section.

One-Semester Courses

Thorough coverage of the bulk of the book supposes a two-semester course in economics. A great many first courses in economics are only one semester (or equivalent) in length and our book can be easily adapted to such courses. Suggestions for use of this book for such courses are given on pages xxv–xxvi. We recognize that for any one-semester course a choice must be made among emphases. Most one-semester survey courses necessarily give some coverage to theory and to policy, to micro- and to macroeconomics, but the relative weights vary. Instructors will wish to choose the topics to be included or excluded and to vary the order to suit their own preferences.

ACKNOWLEDGMENTS

So many teachers, colleagues, students, and friends contributed to the original book and to its continuing revision that it is impossible for us to acknowledge our debts to all of them individually. Hundreds of users, both teachers and students, have written to us with specific suggested improvements, and much of the credit for the fact that the book does become more and more teachable belongs to them. We can no longer list them individually but we thank them all, most sincerely. A few individuals provided reviews of the fifth edition that were most helpful in preparing the present edition. These are Charles Brown, Stephen F. Austin State University; Eric Gustafson, University of California at Davis; Rodney H. Mabry, Northeast Louisiana Univer-

sity; James R. Marsden, University of Kentucky; Felipe Montt, University of Minnesota; Stephen Nord, Northern Illinois University; Gerard T. O'Boyle, St. John's University; Stephen E. Reynolds, University of Utah; William J. Swift, Pace University; and Josephine K. Tan, University of Central Arkansas. In addition, the following reviewed draft manuscript of Chapters 26–31: Robert M. Aduddell, Loyola University of Chicago; David Terkla, Boston University; Stanislaw Wasowski, Georgetown University; and William C. Wood, University of Virginia.

Patricia O. Steiner contributed greatly to the updating of the illustrative examples and to the end-of-chapter questions. Judith Roberts, Mark Meyer, and Cappy Hill provided significant research assistance. Frederick Menz, Dascomb Forbush, Douglas Auld, and Kenneth Grant, who contributed to the supplements, have all contributed to this edition as well.

We owe special thanks to Carolyn Shaw Bell, Richard C. Porter, and Douglas Purvis for detailed suggestions for revision of particular chapters in their areas of specialty.

Dorothy O'Reilly and Marlene Rego coped with mountains of manuscript with extraordinary skill and patience under difficult circumstances. Weidenfeld and Nicholson generously gave permission to use material first prepared for the fifth edition of *An Introduction to Positive Economics* by R. G. Lipsey.

Finally it is with great sadness we report the death of our long-time collaborator and friend, Dorothy Fitts Forbush, and we dedicate this sixth edition to her memory.

Richard G. Lipsey
Peter O. Steiner

Suggested Outline for a One-semester Course¹

Basic core chapters for courses covering both micro and macro

INTRODUCTION

- 1 The Economic Problem
- 2 Economics as a Social Science
- 4 An Overview of the Economy

MICROECONOMICS

- 5 Demand, Supply, and Price
- 6 Elasticity of Demand and Supply
- 11 The Firm, Production, and Cost
- 12 Production and Cost in the Short Run
- 13 Production, Substitution, and Productivity Increases: Cost in the Long and Very Long Run
- 14 Pricing in Competitive Markets
- 15 Pricing in Monopoly Markets
- 24 Microeconomic Policy I: Benefits and Costs of Government Intervention in the Market Economy

MACROECONOMICS

- 26 Aggregate Demand and Aggregate Supply
- 27 The Concepts of National Product and National Income
- 28 What Determines National Income?
- 29 Changes in National Income
- 31 Fiscal Policy (to page 570)
- 32 The Nature and History of Money
- 33 The Banking System and the Money Supply
- 36 The Nature of Unemployment and Inflation (to page 684)

¹ A full semester course can cover not more than 25 full chapters. The core consists of about 18 chapters. Selections from other chapters, as listed below or according to the instructor's own preferences, can produce courses with various emphases.

Chapters that can be added to give different emphases to different courses²

MICROECONOMICS

- * 7 Supply and Demand in Action I: Agriculture and the Volunteer Army
- * 8 Supply and Demand in Action II: Price and Rent Ceilings
- 16 Industrial Organization and Theories of Imperfect Competition
- 17 Price Theory in Action
- *18 Monopoly Versus Competition
- 20 The Distribution of National Income
- *21 Collective Bargaining, Discrimination, and the Determination of Wages (from p. 368)
- *23 Poverty, Inequality, and Mobility (up to p. 407)
- *25 Microeconomic Policy II: Public Finance and Public Expenditure

MACROECONOMICS

- *31 Fiscal Policy (from p. 570)
- 34 The Role of Money in Macroeconomics
- *35 Monetary Policy
- *37 Macroeconomic Experience
- 39 The Gains from Trade
- 40 Barriers to Free Trade
- 43 Growth in Developed Economies
- *44 Growth and the Less-developed Countries
- 45 Comparative Economic Systems

APPENDIXES TO CONSIDER

- 3 Graphing Economic Magnitudes
- 11 Balance Sheets, Income Statements, and Costs of Production: Two Views

² Chapters shown with an * are particularly appropriate for courses with a heavy policy orientation. Chapters not listed here or in the core seem to us to be of lower priority in a one-semester course.

To the Student

A good course in economics will give you some real insight into how an economy functions and into some of the policy issues that are currently the subject of serious debate. Like all rewarding subjects, economics will not be mastered without effort. A book on economics must be worked at. It cannot be read like a novel.

Each student must develop an individual technique for studying, but the following suggestions may prove helpful. It is usually a good idea to read a chapter quickly in order to get the general run of the argument. At this first reading you may want to skip the "boxes" of text material and any footnotes. Then, after reading the Topics for Review and the Discussion Questions, reread the chapter more slowly, making sure that you understand each step of the argument. With respect to the figures and tables, be sure you understand how the conclusions stated in the brief tag lines below each table or figure have been reached. You should be prepared to spend time on difficult sections; occasionally, you may spend an hour on only a few pages. Paper and a pencil are indispensable equipment in your reading. It is best to follow a difficult argument by building your own diagram while the argument unfolds rather than by relying on the finished diagram as it appears in the book. It is often helpful to invent numerical examples to illustrate general propositions. The end-of-chapter questions require you to apply what you have studied. We advise you to outline answers to some of the questions. In short, you must seek to understand economics, not to memorize it.

After you have read each part in detail, reread

it quickly from beginning to end. It is often difficult to understand why certain things are done when they are viewed as isolated points, but when you reread a whole part, much that did not seem relevant or entirely comprehensible will fall into place in the analysis.

We call your attention to the glossary at the end of the book. Any time you run into a concept that seems vaguely familiar but is not clear to you, check the glossary. The chances are that it will be there, and its definition will remind you of what you once understood. If you are still in doubt, check the index entry to find where the concept is discussed more fully. Incidentally, the glossary, along with the captions under figures

and tables and the end-of-chapter summaries, may prove very helpful when reviewing for examinations.

The bracketed green numbers in the text itself refer to a series of nearly 50 mathematical notes that are found starting on page 930. For those of you who like mathematics or prefer mathematical argument to verbal or geometric exposition, these may prove useful. Others may ignore them.

We hope that you will find the book rewarding and stimulating. Students who used earlier editions made some of the most helpful suggestions for revision, and we hope you will carry on the tradition. If you are moved to write to us, please do.

Brief Contents

PART ONE

The Nature of Economics

- 1 The Economic Problem, 2
- 2 Economics as a Social Science, 17
- 3 The Role of Statistical Analysis, 29
- 4 An Overview of the Economy, 43

MICROECONOMICS

PART TWO

A General View of the Price System 57

- 5 Demand, Supply, and Price, 58
- 6 Elasticity of Demand and Supply, 78
- 7 Supply and Demand in Action I:
Agriculture and the Volunteer Army, 90
- 8 Supply and Demand in Action II:
Price and Rent Ceilings, 111

PART THREE

Demand 129

- 9 Household Consumption Behavior, 130
- 10 Demand Theory in Action, 154

PART FOUR

Production and Cost 169

- 11 The Firm, Production, and Cost, 170
- 12 Production and Cost in the Short Run, 185
- 13 Production, Substitution, and
Productivity Increases: Cost in the Long
and Very Long Run, 198

PART FIVE

Markets and Pricing 219

- 14 Pricing in Competitive Markets, 220
- 15 Pricing in Monopoly Markets, 241

- 16 Industrial Organization and Theories of Imperfect Competition, 257
- 17 Price Theory in Action, 274
- 18 Monopoly Versus Competition, 291
- 19 Who Runs the Firm and for What Ends? 312

PART SIX

Factor Pricing and the Distribution of Income 329

- 20 The Distribution of National Income, 330
- 21 Collective Bargaining, Discrimination, and the Determination of Wages, 354
- 22 Interest and the Return on Capital, 379
- 23 Poverty, Inequality, and Mobility, 397

PART SEVEN

The Market Economy: Problems and Policies 417

- 24 Microeconomic Policy I: Benefits and Costs of Government Intervention in the Market Economy, 418
- 25 Microeconomic Policy II: Public Finance and Public Expenditure, 443

MACROECONOMICS

PART EIGHT

National Income and Fiscal Policy 473

- 26 Aggregate Demand and Aggregate Supply, 474
- 27 The Concepts of National Product and National Income, 491
- 28 What Determines National Income? 507
- 29 Changes in National Income, 521

- 30 Cycles and Fluctuations in National Income, 536

- 31 Fiscal Policy, 559

PART NINE

Money, Banking, and Monetary Policy 587

- 32 The Nature and History of Money, 588
- 33 The Banking System and the Money Supply, 610
- 34 The Role of Money in Macroeconomics, 631
- 35 Monetary Policy, 651

PART TEN

Macroeconomic Policy in Action: The Control of Inflation and Unemployment 667

- 36 The Nature of Unemployment and Inflation, 668
- 37 Macroeconomic Experience, 692
- 38 Current Issues in Macroeconomic Policy, 706

PART ELEVEN

International Trade and Finance 731

- 39 The Gains from Trade, 732
- 40 Barriers to Free Trade, 742
- 41 Foreign Exchange, Exchange Rates, and the Balance of Payments, 760
- 42 International Monetary Systems, 780

PART TWELVE

Economic Growth and Comparative Systems 801

- 43 Growth in Developed Economies, 802
- 44 Growth and the Less-developed Countries, 821
- 45 Comparative Economic Systems, 846

Contents

Preface, xix

PART ONE **The Nature of Economics 1**

1 **THE ECONOMIC PROBLEM 2**

Economic Problems of the Eighties, 3

Unemployment and Inflation, 3

Energy, 3

Productivity and Growth, 4

Growth and Pollution, 4

Poverty, Medical Care, and Government Policies, 5

What Is Economics? 5

Resources and Commodities, 5

Scarcity, 6

Choice, 6

A Classification of Economic Problems, 8

Economics: A Working Definition, 10

Economic Analysis and Economic Policy, 11

The Pervasiveness of Policy Decisions, 11

The Roles of the Economist in Economic Policy, 11

Economic and Political Objectives, 14

2 **ECONOMICS AS A SOCIAL SCIENCE 17**

The Distinction Between Positive and Normative, 17

The Scientific Approach, 19

Is Human Behavior Predictable? 20

The Nature of Scientific Theories, 22

What Is a Theory and How Is It Tested? 22

Economics as a Developing Science, 25

3	THE ROLE OF STATISTICAL ANALYSIS	29
	Index Numbers, 29	
	Index Numbers of Prices, 30	
	Index Numbers of Physical Outputs, 32	
	The Accuracy and Significance of Index Numbers, 33	
	Measurement and Testing of Economic Relations, 33	
	Techniques for Testing Theories, 34	
	The Statistical Testing of Economic Theories: An Example, 35	
	Evaluating the Evidence, 39	
4	AN OVERVIEW OF THE ECONOMY	43
	The Evolution of Market Economies, 43	
	Surplus, Specialization, and Trade, 44	
	Factor Services and Division of Labor, 44	
	Scarcity and the Allocation of Resources, 45	
	The Decision Makers, 45	
	Households, 45	
	Firms, 47	
	Central Authorities, 47	
	Other Decision Makers, 48	
	Markets and Economies, 48	
	Markets, 48	
	Economies, 48	
	Sectors of an Economy, 49	
	How Individual Markets Work: An Overview of Microeconomics, 50	
	The Circular Flow: From Microeconomics to Macroeconomics, 52	
	An Overview of Macroeconomics, 52	
	Micro- and Macroeconomics Compared, 54	
	PART TWO	
	A General View of the Price System	57
5	DEMAND, SUPPLY, AND PRICE	58
	The Basic Theory of Demand, 58	
	The Nature of Quantity Demanded, 59	
	What Determines Quantity Demanded? 60	
	Demand and Price, 60	
	The Demand Schedule and the Demand Curve, 61	
	The Basic Theory of Supply, 65	
	The Nature of Quantity Supplied, 66	
	What Determines Quantity Supplied? 66	
	Supply and Price, 66	
	The Supply Schedule and the Supply Curve, 67	
	The Determination of Price by Demand and Supply, 70	
	The "Laws" of Supply and Demand, 72	
	The Theory of Price in an Inflationary World, 74	
6	ELASTICITY OF DEMAND AND SUPPLY	78
	Demand Elasticity, 78	
	Price Elasticity: A Measure of the Responsiveness of Quantity Demanded to Price Changes, 80	
	Other Demand Elasticities, 84	
	Supply Elasticity, 86	
7	SUPPLY AND DEMAND IN ACTION I: AGRICULTURE AND THE VOLUNTEER ARMY	90
	Agriculture and the Farm Problem, 90	
	The Nature of the Farm Problem, 91	
	Fluctuations and Trends in Prices and Incomes, 92	
	Agricultural Stabilization and Support, 97	
	Problems with Agricultural Stabilization and Support Plans, 99	
	American Farm Policy Since 1929, 100	
	Prospects for Agriculture in the 1980s, 103	
	The Volunteer Army Versus the Draft, 104	
	Effects of Alternative Methods, 105	
	Evaluation of Alternatives, 107	
8	SUPPLY AND DEMAND IN ACTION II: PRICE AND RENT CEILINGS	111
	The Theory of Price Ceilings, 111	
	Quantity Exchanged at Non-equilibrium Prices, 111	
	Effective Ceiling Prices, 112	
	Allocating a Commodity in Short Supply, 113	
	The Experience with Ceiling Prices, 114	
	Rent Controls, 115	
	The Theory of Ceiling Prices Applied to Rent Controls, 115	
	Special Aspects of the Housing Market, 115	
	Supply Response to Changes in Rents, 118	
	The Demand for Rental Housing, 119	
	When Rent Controls Work: Short-term Shortages, 120	
	When Rent Controls Fail: Long-term Shortages, 121	
	Rent Controls in the United States Today, 122	
	What Are the Alternatives? 124	
	Four General Lessons About Resource Allocation, 125	
	Costs May Be Shifted, but They Cannot Be Avoided, 125	
	Free-market Prices and Profits Encourage Economical Use of Resources, 125	