

ECONOMICS

PRINCIPLES AND APPLICATIONS



HALL &
LIEBERMAN

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PRINCIPLES AND APPLICATIONS

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PREFACE

TO THE INSTRUCTOR

This book is about economic *principles*—and how those principles are applied in the *real world*. It was conceived, written, and rewritten to help your students focus on those basic principles.

All of the existing books we have seen—and used—are *substitutes* for the instructor. They try to replicate what happens in class, as if there *were* no class. Moreover, many of them are encyclopedic—they cover every possible topic and subtopic *just in case* you might want to present them

Our approach is very different. We believe in *complementarity* between textbook and instructor, letting each specialize in the task for which it is best suited. A text has a comparative advantage as a study and reference tool, since the instructor cannot be pulled down off the shelf at a moment's notice. Therefore, a text's primary goal should be a well-organized, logical exposition of economic analysis with a minimum of distraction. As an instructor, you have the comparative advantage in bringing current events into the classroom, sparking controversy and discussion, and fleshing out the material in a highly personal way. A textbook—by its nature—cannot do any of these tasks well. This book is designed to support you—and to stay out of your way. Our philosophy is to treat fewer topics, and to treat them fully. We have tried hard not to write an encyclopedia of economics.

Economics: Principles and Applications has a distinctive approach:

- **We stress the basic principles of economics.** Economic theory makes repeated use of some fundamental ideas that appear again and again in many contexts. To truly understand what economics is all about, students need to learn what these central ideas are, and they need to see them in action in different contexts. We've identified and stressed eight *basic principles of economics* in this text. These are:
 - Maximization Subject to Constraints
 - Opportunity Cost

- Specialization and Exchange
- Markets and Equilibrium
- Short-Run versus Long-Run Outcomes
- Marginal Decision Making
- Policy Tradeoffs
- The Importance of Real Values

A full statement of each principle appears in Chapter 1, and again later when it is first used. Then, whenever the principle is used again in future chapters, it is identified with a key symbol shown in the margin.



- **We avoid nonessential material.** When we believed a topic was not essential to an introductory understanding of economics, we left it out. We have also avoided interviews, news clippings, and boxed inserts with only distant connections to the core material. The features your students *will* find in our book are there to help them understand basic economic theory itself, or to help them explore sources of information on their own using the Internet.
- **We explain difficult concepts patiently.** Because we have avoided the encyclopedic approach, we can explain the topics we *do* cover thoroughly and patiently. We try to lead students, step-by-step, through each aspect of the theory, through each graph, and through each numerical example. Moreover, in the process of developing this book, we asked other experienced teachers to tell us which aspects of economic theory are hardest for their students to learn, and we've paid special attention to the trouble spots. Of course, full, patient explanations take up space, too. This is why our book is only *somewhat* shorter than other texts, even though our focus is more concentrated.
- **We use concrete examples.** Students learn best when they see how economics can explain the world around them. Whenever possible, we develop the theory using real-world examples. When we employ hypothetical examples, because they illustrate the theory more cleanly, we try to make them realistic.

In addition, each chapter ends with a thorough, extended application of new material.

SPECIAL PEDAGOGICAL FEATURES

We've chosen features that reinforce the basic theory, rather than distract from it. Here is a list of the most important ones, and how we believe they help students focus on essentials.

- *Using the Theory* sections, which present extended applications, appear at the end of each chapter. While there are plenty of real-world examples and facts in the body of the chapter, helping to illustrate each step along the way, we also felt it important to have one extended application that unifies the material in the chapter. In the *Using the Theory* sections, students see how the tools they've learned can explain something about the world—something that would be difficult to explain without those tools.
- *Myth* sections are designed to dispel confusions about the economy that students *bring with them* to the class—ideas that they may have gotten from the media or from friends or family. Confronting these myths head-on helps to resolve dissonance between prior beliefs and current course content. We try to head off confusion before it occurs.
- *Dangerous Curves* explanations are designed to eliminate confusion that sometimes arises *as* students read the text—the kinds of mistakes we see year after year in their exams.
- *Internet references* point students to resources that contain truly up-to-the-minute information. We prefer Internet references, rather than the traditional approach of including news stories in the text, for two reasons. First, we want to minimize distractions; and second, what is current news at the time of writing is stale by the time of publication.

WHAT'S DIFFERENT HERE, AND WHY

In addition to the special features just described, you will find some important differences in topical approach and arrangement. These, too, are designed to make the theory stand out more cleanly, and to make learning easier. These are not pedagogical experiments, nor are they innovation for the sake of innovation. On the contrary, we are sensitive to the burden of adapting an existing syllabus to a new text. The pedagogical differences you will find in this text are the product of years of classroom experience.

A few of the differences may require minor adjustments in class lectures, and these are listed below. But we would be remiss if we merely listed them without also pointing out why we believe they are improvements. Please indulge us a bit as you read through this list.

INNOVATIONS IN MICROECONOMICS

- **Scarcity, Choice, and Economic Systems** (Chapter 2): This early chapter, while covering standard material like opportunity cost, also introduces some central concepts much earlier than other texts. Most importantly, the chapter introduces the concept of *comparative advantage*, and the basic principle of *specialization and exchange*. We have moved them to the front of our book because we believe they provide important building blocks for much that comes later. For example, economies of scale (Chapter 6) can result from comparative advantage and specialization *within* the firm. International trade (Chapter 28) can be seen as a special application of these principles, extending them to trade between nations.
- **The Theory of the Firm** (Chapter 7): Many texts introduce the theory of the firm in the context of pure competition. We believe this is an unfortunate choice because it forces students to master the logic of profit maximization and the details of a rather special kind of market at the same time. Students quite naturally think of firms as facing downward-sloping demand curves—not horizontal ones. We've found that they have an easier time learning the theory of the firm in a more familiar context. Further, by treating the theory of the firm in a separate chapter, before pure competition, we can present together those concepts that apply in *all* market structures (the shapes of marginal cost and average cost curves, marginal cost equals marginal revenue, the shut-down rule, etc.), as distinguished from those unique to pure competition.
- **Monopolistic Competition and Oligopoly** (Chapter 10): Two features of our treatment are worth noting here. First, we emphasize advertising, a key feature of both of these types of markets. We find that students are very interested in advertising, and how firms make decisions about it. The chapter opens with this theme, and the *Using the Theory* section pursues it further. Second, we have taken the plunge and jettisoned older theories of oligopoly that raised more questions than they answered, such as the

kinked demand curve model. Our treatment of oligopoly is strictly game-theoretic, but we've taken great care to keep it simple and clear.

- **Description vs. Assessment** (Chapters 8–10 and 14): In treating each of the four basic product market structures (pure competition, monopoly, monopolistic competition, and oligopoly), most texts switch back and forth between the *description* of different markets and the *assessment* of market outcomes. In our view, this has several drawbacks. First, students often confuse the two. Second, it can make learning about market structure overwhelming. It is hard enough for first-time economics students to understand what happens in each type of market, let alone learn what is good and bad about each one at the same time. Finally, by mixing description and assessment, the all-important concept of economic efficiency is lost in the shuffle; it is diffused throughout the book, rather than treated comprehensively as a unified topic.

Our book collects the material on economic efficiency into a single chapter. This has several advantages. First, it permits you to focus on *description* and *prediction* when teaching about the four market structures—a full plate, in our experience. Second, having a chapter devoted to efficiency allows a more comprehensive treatment of the topic than we've seen elsewhere. Finally, our approach—in which students learn about efficiency *after* they have mastered the four market structures—allows them to study efficiency with the perspective needed to really understand it.

- **The Government's Role in Economic Efficiency** (Chapter 15): Like the concept of efficiency itself, this important subject is treated in its own chapter. In addition to the standard topics (externalities, public goods, and assessment of imperfect competition), we introduce a crucial subject often missing from introductory texts: the economic role of the legal system. We believe this should be a core topic in the introductory course.

INNOVATIONS IN MACROECONOMICS

- **Long-Run Macroeconomics** (Chapters 19 and 20): This text presents long-run growth before short-run fluctuations. But unlike many other texts, which treat growth in an entirely descriptive way, our treatment is analytical. Chapter 19 develops the long-run, classical model at a level appropriate for introductory students. Chapter 20 then *uses* the classical model to

explain the causes—and costs—of economic growth in both rich and poor countries.

We believe it is better to treat the long run before the short run, for two reasons. First, the long-run model makes full use of the tools of supply and demand, and thus provides for an easier transition from the preliminary chapters (1, 2, and 3) into macroeconomics. Second, we believe that students can truly understand economic fluctuations only if they understand *how* and *why* the long-run model breaks down over shorter time periods. This, of course, requires a full treatment of the long-run model first.

- **Booms and Recessions** (Chapter 21): This unique chapter provides a bridge from the long-run to the short-run macro model, and paves the way for the short-run focus on *spending* as the driving force behind the Keynesian model.
- **Aggregate Demand and Aggregate Supply** (Chapter 25): One of our pet peeves about other introductory texts is the too-early introduction of aggregate demand and aggregate supply curves, *before* teaching where these curves come from. Students then confuse the AD and AS curves with their microeconomic counterparts, requiring corrective action later. In this text, the AD and AS curves do not appear until Chapter 25, where they are fully explained. Our treatment of AS is based on a very simple mark-up model that our students have found very accessible.
- **Exchange Rates and Open-Economy Macroeconomics** (Chapter 29): Many students find international macroeconomics the most interesting topic in the course, especially the material on exchange rates and what causes them to change. Accordingly, you will find unusually full coverage of exchange rate determination in this chapter. This treatment, while extensive, is kept simple and straightforward, relying exclusively on supply and demand. And it forms the foundation for the discussion of open-economy macroeconomics that ends the chapter.

BUILDING A SYLLABUS

We have arranged the contents of each chapter, and the table of contents as a whole, according to the order of presentation that we recommend. But we've also built in some flexibility. For example, Chapter 5 develops consumer theory with both marginal utility and (in an appendix) indifference curves, allowing you to present either method in class. We've retained the traditional placement of international trade and finance toward the

end of the book (Chapters 28 and 29). But if you wish to highlight international trade, you could assign Chapter 28 immediately following Chapter 3. In macroeconomics, once the core chapters (16 through 25) have been taught, the remaining chapters (26–29) can be presented in virtually any order.

Finally, we have included only those chapters that we thought were both essential and teachable in a year-long course. But not everyone will agree about what is essential. While we—as authors—cringe at the thought of a chapter being omitted in the interest of time, we’ve allowed for that possibility. Nothing in Chapter 12 (income inequality and poverty), Chapter 13 (capital and natural resources), Chapter 15 (government’s role in economic efficiency), Chapter 26 (monetary policy), Chapter 27 (fiscal policy and the deficit), Chapter 28 (international trade), or Chapter 29 (international finance) is required to understand the other chapters in the book. Skipping any of these should not cause continuity problems.

TEACHING AIDS FOR THE INSTRUCTOR

- The Instructor’s Manual contains chapter summaries, lecture outlines, teaching tips and activities, ideas for interactive teaching, and solutions to all end-of-chapter problems and exercises.
- The Microeconomics and Macroeconomics Test Banks contain over 5,000 multiple-choice questions.

They are available in both printed and electronic forms.

- Full-color transparencies are available for most of the key graphs and illustrations in the text.
- Our Web site gives students access to a variety of perspectives on economic issues of the day. It contains a series of accessible position papers that explain competing viewpoints on key policy issues. The site also contains news updates linked to the text, teaching and learning resources, and a variety of other interesting features.
- Tutorial software allows students to create, modify, and use key graphs.
- A CNN video provides a variety of short video clips on various aspects of economics.
- Many of the text’s figures and tables are available as Microsoft PowerPoint files.

A REQUEST

Although we’ve worked hard on this book, we know we’ll be able to improve it further in future editions. For that, our fellow users are indispensable. We invite your comments and suggestions wholeheartedly. We especially welcome your suggestions for additional “Myths” and “Dangerous Curves.” You may send your comments to either of us care of South-Western College Publishing.

*Bob Hall
Marc Lieberman*

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This book is a case study of the principle of specialization and exchange. So many people contributed their valuable skills and expertise, especially the staff of South-Western College Publishing. First and foremost among them is our development editor, Dennis Hanseman. Not only does he hold a Ph.D. in economics, but he also possesses a rare ability to take the viewpoint of someone new to economics. His knack for spotting potential areas of confusion, his stubborn insistence on absolute clarity at every turn, and his innumerable contributions in planning and executing the project were immensely valuable. Jack Calhoun, formerly acquisitions editor at South-Western and now team director there, originally signed us as authors, so it is fair to say that this book would not exist without him. He was a relentless advocate for South-Western as a superior publishing company (a description that turned out to be entirely accurate), and a great problem solver once the project was under way. John Alessi, who took over midstream from Jack, jumped into the project with enthusiasm, energy, and skill. Lisa Lysne did a superior job of marketing and advertising this book and coming up with creative ways to explain what it was all about. Joe Devine created the design features for the text, and accomplished a near impossible task: designing a cover that both authors like a lot.

In addition to those at South-Western, we would like to thank Sue Ellen Brown, of Justified Left, and Ann Mohan at WordCrafters, who turned our manuscript into a beautiful book. Bruce Watson and Jennifer Stephan contributed many of the end-of-chapter questions. Geoffrey Jehle, of Vassar College, Heinz Kohler, of Amherst College, and Mike Pogodzinski of San Jose State University, also made important contributions.

Finally we would like to thank our many reviewers, who carefully read the draft manuscript and provided, literally, more than a thousand suggestions for changes and improvements as we drafted and redrafted. While we had no intention of writing a book that would be “all things to all people,” and could not incorporate every suggestion, our reviewers helped us make the book “more things for more people.” Among those whose suggestions we found particularly valuable are the following:

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PERSONAL NOTE FROM BOB HALL. Charlotte Pace, who keeps my office humming at Stanford, contributed in many ways, especially raising the art of copy checking and proofreading to new levels of excellence. My son Chris served as college culture consultant for the book. My wife, Susan Woodward—a financial economist—helped in so many ways, and happily tolerated the domestic dislocations that inevitably accompany a project like this one. She read and commented on many of the chapters and drafted material in her areas of interest. And she made Marc very happy by cooking dinner for him.

TO THE STUDENT

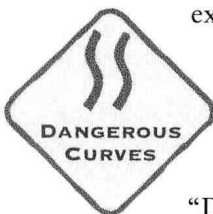
You may have already noticed that this note is substantially shorter than our note to instructors. And for good reason. The entire book has been written with you in mind. Here, we just want to give you some advice on using some special features of this book, and suggest some helpful supplements.

- **Getting started:** The first chapter tells you what economics is, and gives some tips on how to study it.
- **The Basic Principles:** As you will see, much of economic theory boils down to a small number of fundamental ideas, which appear again and again in many contexts. In this book, we've identified eight of them, and we call them the *basic principles of economics*. The entire list is presented in Chapter 1, and each principle is discussed, in more detail, in a later chapter when it is first used. Throughout the book, each time the principle appears again, it is identified with a key symbol, as shown at left.



When you see one of these keys, it's a signal to stop and think about how the principle is being used.

- **Dangerous Curves:** Professors *do* talk about other things besides the mistakes their students make on exams. But when the subject comes up, it is surprising that our experiences are so similar. Year after year, no matter how hard we try, the same confusions pop up. We've tried to identify the most common ones in our "Dangerous Curves" feature, which you will find throughout the text. You may want to skip them as you read through the chapter the first time, and concentrate on them later—especially before exam time.



- **Myths:** From reading the newspaper, watching the news on TV, or even talking to your friends, you have probably developed a number of ideas about the economy and how it operates.



Some of these ideas will be accurate but, unfortunately, others are dead wrong. We've identified some of the more common myths you may have encountered, and have tried to dispel them using the concepts you'll learn in this book. Again, these can be skipped as you read through the chapter the first time, but make sure you come back to them later.

- **Using the Theory:** Each chapter ends with an application that demonstrates how the tools you've

learned can help you understand something new about the world, something that would be hard to understand *without* those tools. These

USING THE
THEORY

applications should be read the first time you go through the chapter. They can be read again later as a useful review of how economic tools are used.

- **Mathematical Appendix:** For the most part, the only math you need to understand this book is what you learned in high school—and only a small part of that. The required math, as well as the basics of graphs, are reviewed in the mathematical appendix at the end of the book. If you are very rusty, you might want to read the appendix in its entirety, early on. Otherwise, just know that it's there, and refer to it when you need it.
- The Hall/Lieberman **Web site** contains a variety of helpful features that will enrich your study of economics. Check it out on a regular basis at <http://hall-lieb.swcollege.com>



LEARNING AIDS

The following items are also available to help you learn economics:

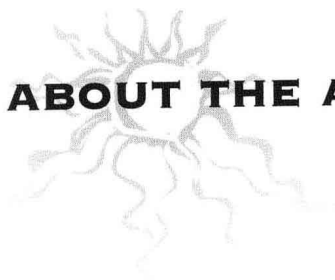
- **The Study Guide:** Learning is different from memorizing. This textbook has been written to help you understand each concept. Nevertheless, to really master the material, there is nothing like repeated problem solving. Much as practicing helps a pianist, the Study Guide written to accompany this book will help you strengthen your knowledge of economics. (ISBN: 0-538-85471-5)
- **ECONOMICS ALIVE!** is a pair of exciting CD-ROMs that contain animated lessons, economic tool-building exercises, and simulations that will help you learn economics interactively. (For microeconomics, ISBN: 0-538-84650-X. For macroeconomics, ISBN: 0-538- 85471-5)

These learning aids can be ordered through your campus bookstore.

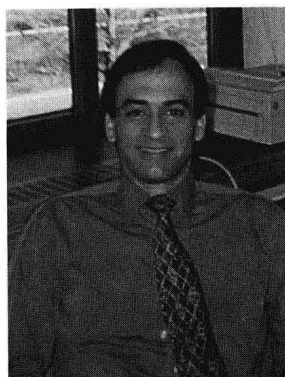
We are honored to help your instructor welcome you to the field of economics. We hope you find the experience of reading this book a fulfilling one—as fulfilling as the experience we had writing it.

Bob Hall
Marc Lieberman

ABOUT THE AUTHORS



Robert E. Hall is one of the world's most eminent economists. He is Senior Fellow at the Hoover Institution and Professor of Economics at Stanford University where he conducts research on inflation, unemployment, taxation, monetary policy, and the economics of high technology. He received his Ph.D. from MIT and has taught there as well as at the University of California, Berkeley. Hall is Director of the research program on Economic Fluctuations of the National Bureau of Economic Research, and Chairman of the Bureau's Committee on Business Cycle Dating, which maintains the semiofficial chronology of the U.S. business cycle. He has published numerous monographs and articles in scholarly journals, and is the co-author of the popular intermediate text, *Macroeconomics: Theory, Performance, and Policy*. Hall has advised the Treasury Department and the Federal Reserve Board on national economic policy, and has testified on numerous occasions before congressional committees.



Marc Lieberman is Associate Professor of Economics at Vassar College and a visiting lecturer at Princeton University, where he received his Ph.D. He has presented his extremely popular Principles of Economics course at Vassar, Harvard, the University of California-Santa Cruz, and the University of Hawaii. Lieberman is co-editor and contributor to *The Road to Capitalism: Economic Transformation in Eastern Europe and the Soviet Union*. In addition, he has consulted with the Bank of America and the Educational Testing Service. In his spare time, he is a professional screenwriter. He co-wrote the script for *Love Kills*, a movie that aired on the USA Cable Network and is now available in video stores around the world.



BRIEF CONTENTS

PART I PRELIMINARIES

1	What Is Economics?	1
2	Scarcity, Choice, and Economic Systems	18
3	Supply and Demand	43

PART II MICROECONOMICS: FUNDAMENTAL CONCEPTS

4	Elasticity: Concept and Use	73
5	Consumer Choice	103
6	Production and Cost	137
7	How Firms Make Decisions: Profit Maximization	175

PART III PRODUCT MARKETS

8	Pure Competition	203
9	Monopoly	236
10	Monopolistic Competition and Oligopoly	263

PART IV INPUT MARKETS

11	The Labor Market	294
12	Income Inequality	331
13	Markets for Capital and Natural Resources	363

PART V EFFICIENCY AND THE ROLE OF GOVERNMENT

14	Economic Efficiency and the Competitive Ideal	392
15	Government's Role in Economic Efficiency	416

PART VI MACROECONOMICS: BASIC CONCEPTS

16	What Macroeconomics Tries to Explain	445
17	Production, Income, and Employment	457
18	The Monetary System, Prices, and Inflation	489

PART VII LONG-RUN MACROECONOMICS

- | | | |
|----|---|-----|
| 19 | The Classical Long-Run Model | 513 |
| 20 | Economic Growth and Rising Living Standards | 543 |

PART VIII SHORT-RUN MACROECONOMICS

- | | | |
|----|-------------------------------|-----|
| 21 | Booms and Recessions | 573 |
| 22 | The Short-Run Keynesian Model | 593 |

PART IX MONEY, PRICES, AND FLUCTUATIONS

- | | | |
|----|---|-----|
| 23 | The Banking System and the Money Supply | 630 |
| 24 | The Money Market and the Interest Rate | 658 |
| 25 | Aggregate Demand and Aggregate Supply | 688 |

PART X MACROECONOMIC POLICY

- | | | |
|----|--|-----|
| 26 | Inflation and Monetary Policy | 720 |
| 27 | Fiscal Policy: Taxes, Spending, and the Budget Deficit | 749 |

PART XI THE INTERNATIONAL ECONOMY

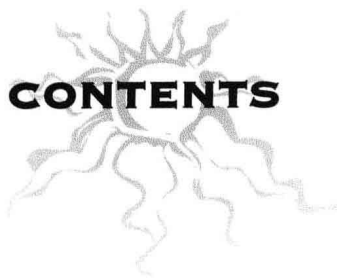
- | | | |
|----|--|-----|
| 28 | Comparative Advantage and the Gains from Trade | 777 |
| 29 | Exchange Rates and Open-Economy Macroeconomics | 803 |

Mathematical Appendix	MA-1
-----------------------	------

Glossary	G-1
----------	-----

Index	I-1
-------	-----

Photo Credits	PC-1
---------------	------



CONTENTS

PART I

PRELIMINARIES

1 WHAT IS ECONOMICS? 1

Myths about Economics 2

Economics, Scarcity, and Choice 3

Scarcity and the Individual 3 Scarcity and Society 3
Scarcity and Economics 4

The World of Economics 5

Microeconomics and Macroeconomics 5 Positive and
Normative Economics 5 Fields of Economics 6

Why Study Economics? 8

To Understand the World Better 8 To Gain Self-
Confidence 8 To Achieve Social Change 8 To Help
Prepare for Other Careers 8 To Become an Economist 9

The Methods of Economics 9

The Art of Building Economic Models 9 Assumptions
and Conclusions 10 Two Fundamental Assumptions 11
A Few Words on Macroeconomics 13 Choosing among
Theories 13

“How Much Math Do I Need?” 13

The Basic Principles of Economics 14

How to Study Economics 15

2 SCARCITY, CHOICE, AND ECONOMIC SYSTEMS 18

The Concept of Opportunity Cost 18

Opportunity Cost for Individuals 18 Opportunity Cost
and Society 20

The Principle of Opportunity Cost 20

Production Possibilities Frontiers 20 The Search for a Free
Lunch 23

Economic Systems 26

Specialization and Exchange 27 Resource Allocation 32
Resource Ownership 36 Types of Economic Systems 37

Using the Theory: Opportunity Cost and the Internet 39

3 SUPPLY AND DEMAND 43

Markets 44

The Size of the Market 44 Competition in Markets 44

Demand 45

Price and Quantity Demanded 46 The Demand Schedule
and the Demand Curve 47 Changes in Demand 48

Supply 52

Price and Quantity Supplied 52 The Supply Schedule and
the Supply Curve 53 Changes in Supply 55

Putting Supply and Demand Together 57

What Happens When Things Change? 60

The Principle of Markets and Equilibrium 63

A Myth about Supply and Demand 64

Government Intervention in Markets 65

Price Ceilings 65 Price Floors 67 Supply and Demand
and Normative Economics 68

Using the Theory: Anticipating a Price Change 68

PART II

MICROECONOMICS: FUNDAMENTAL CONCEPTS

4 ELASTICITY: CONCEPT AND USE 73

Price Elasticity of Demand 74
 The Problem with Using Slope 74 The Elasticity Approach
 75 Calculating Price Elasticity of Demand 76 Categoriz-
 ing Goods by Elasticity 78 Elasticity of Straight-Line
 Demand Curves 80 Elasticity and Total Expenditure 81
 Determinants of Elasticity 84 Using Price Elasticity of
 Demand: The War on Drugs 88 The Basic Principle of
 Policy Tradeoffs 89

Other Demand Elasticities 90
 Income Elasticity of Demand 90 Cross-Price Elasticity of
 Demand 93

Price Elasticity of Supply 94

Using the Theory: The Problem with Food 97

5 CONSUMER CHOICE 103

The Budget Constraint 104
 Changes in the Budget Line 106

Consumer Preferences 108
 Early Insights 108 Rationality 110 Tastes 111

Consumer Decision Making 112

What Happens When Things Change? 116
 Changes in Income 116 Changes in Price 117

Consumers in Markets 122
 From Individual to Market Demand 122

Challenges to Consumer Theory 123

Using the Theory: Improving Education 124

Appendix: Consumer Theory with Indifference Curves 131
 The Indifference Map 133 The Marginal Rate of
 Substitution 134 Consumer Decision Making 134
 Indifference Curves and the Individual Demand
 Curve 136

6 PRODUCTION AND COST 137

The Nature of the Firm 138
 Types of Business Firms 139 Why Employees? 141 The
 Limits to the Firm 143

Inputs and Outputs 144
 The Short Run and the Long Run 145

Production in the Short Run 146
 Total, Marginal, and Average Product 147 Marginal
 Returns to Labor 148 Graphing Product Curves 151 The
 Total-Marginal Relationship 151 The Average-Marginal
 Relationship 151

Cost in the Short Run 153
 Thinking about Costs 153 Measuring Short-Run
 Costs 156 The Relationship between Average and
 Marginal Costs 160 Time to Take a Break 160

Production and Cost in the Long Run 161
 The Relationship between Long-Run and Short-Run
 Costs 163 Average Cost and Plant Size 165 Explaining
 the Shape of the LRATC Curve 166

Using the Theory: Cost Curves and
 Economic Reform in Russia 169

7 HOW FIRMS MAKE DECISIONS: PROFIT MAXIMIZATION 175

The Goal of Profit Maximization 175

Understanding Profit 176
 Two Definitions of Profit 176 Why Are There Profits? 178
 A Myth about Profit 179

The Profit-Maximizing Output Level 179
 Constraints on Revenue and Cost 180 Total Revenue 181
 Total Cost 182 The Total Revenue and Total Cost
 Approach 182 The Marginal Revenue and Marginal Cost
 Approach 183 Profit Maximization Using Graphs 185
 What about Average Costs? 188 The Importance of
 Marginal Decision Making: A Broader View 189 Dealing
 with Losses: The Shutdown Rule 190

The Goal of the Firm Revisited 192
 The Principal-Agent Problem 193 The Principal-Agent
 Problem at the Firm 193 The Assumption of Profit
 Maximization 194

Using the Theory: Getting It
 Wrong and Getting It Right 197
 Getting It Wrong: The Failure of Franklin National
 Bank 197 Getting It Right: The Success of Continental
 Airlines 199

PART III

PRODUCT MARKETS

8 PURE COMPETITION 203

The Notion of Competition 204
 What Is Pure Competition? 205

The Purely Competitive Firm 208
 The Demand Curve Facing a Competitive Firm 209 Cost
 and Revenue Data for a Competitive Firm 209 Finding the
 Profit-Maximizing Output Level 210 Measuring Total
 Profit 212 The Firm's Short-Run Supply Curve 214

Competitive Markets in the Short Run 216
 The (Short-Run) Market Supply Curve 216 Short-Run
 Equilibrium 216

Competitive Markets in the Long Run 219
 Profit and Loss and the Long Run 219 Long-Run
 Equilibrium 220 Distinguishing Short-Run from Long-Run
 Outcomes 222 The Notion of Zero Profit in Pure
 Competition 223 Pure Competition and Plant Size 224
 A Summary of the Competitive Firm in the Long Run 225

What Happens When Things Change? 225
 Constant-Cost Industries 226 Increasing-Cost Industries
 227 Decreasing-Cost Industries 229 Changes in Demand:
 A Summary 230

Using the Theory: Changes in Technology 231

9 MONOPOLY 236

What Is a Monopoly? 236

The Origins of Monopoly 237
 Economies of Scale 238 Control of Scarce Inputs 238
 Government-Enforced Barriers 238

The Single-Price Monopoly 240
 Price and Output Decisions of a Single-Price Monopoly 240
 Profit and Loss 242 Monopoly in the Short Run 244

Monopoly in the Long Run 245 Comparing Monopoly to
 Pure Competition 246 Why Monopolies Often Earn Zero
 Economic Profit 249

Myths about Monopoly 250

Price Discrimination 251
 Requirements for Price Discrimination 252 Effects of Price
 Discrimination 254

The Demise of Monopoly 258

Using the Theory: Price Discrimination
 at Colleges and Universities 259

10 MONOPOLISTIC COMPETITION AND OLIGOPOLY 263

The Concept of Imperfect Competition 263

Monopolistic Competition 264
 Monopolistic Competition in the Short Run 266
 Monopolistic Competition in the Long Run 265 Excess
 Capacity under Monopolistic Competition 268 Nonprice
 Competition 269

Oligopoly 270
 Oligopoly in the Real World 271 Why Oligopolies
 Exist 271 Oligopoly Behavior 274 Cooperative Behavior
 in Oligopoly 278 The Limits to Oligopoly 284

Using the Theory: Advertising in
 Monopolistic Competition and Oligopoly 285
 Advertising and Market Equilibrium under Monopolistic
 Competition 285 Advertising and Collusion in
 Oligopoly 288

The Four Market Structures: A Postscript 289

PART IV

INPUT MARKETS

11 THE LABOR MARKET 294

Resource Markets in General 294

Labor Markets in Particular 296

Defining a Labor Market 296 Competitive Labor Markets 297

Demand for Labor by a Single Firm 298

The Firm's Employment Decision When Only Labor Is Variable 299 The Firm's Employment Decision When Several Inputs Are Variable 304

The Market Demand for Labor 305

Shifts in the Market Labor Demand Curve 307

Labor Supply 310

Individual Labor Supply 311 Market Labor Supply 313 Shifts in the Market Labor Supply Curve 313 Short-Run versus Long-Run Labor Supply 316

Labor Market Equilibrium 319

What Happens When Things Change? 321

A Change in Labor Demand 321 A Change in Labor Supply 323 Labor Shortages and Surpluses 324

Using the Theory: Understanding the Market for College-Educated Labor 326



12 INCOME INEQUALITY 331

Why Do Wages Differ? 332

An Imaginary World 332 Compensating Differentials 334 Barriers to Entry 340 Union Wage Setting 342

Discrimination and Wages 344

Employer Prejudice 344 Employee and Customer Prejudice 345 Statistical Discrimination 346 Dealing with Discrimination 346 Discrimination and Wage Differentials 347

Measuring Income Inequality 349

The Poverty Rate 350 The Lorenz Curve 351 Problems with Inequality Measures 354

Income Inequality, Fairness, and Economics 357

Using the Theory: The Minimum Wage 358



13 MARKETS FOR CAPITAL AND NATURAL RESOURCES 363

Flows versus Stocks 364

Rental Markets and Asset Markets 364

Rental Markets for Capital and Natural Resources 365

Demand for a Resource 365 Supply 367 Market Equilibrium 367

Asset Markets for Capital and Natural Resources 368

Comparing Future Dollars with Present Dollars 369 Capitalizing an Income Stream 371 Purchase Prices of Natural Resources 372 An Application: Land Price Differentials 373

Nonrenewable Resources: Are We Doomed? 374

A Model of Resource Exhaustion 375 Betting on the Planet 377

Interest and the Market for Loanable Funds 378

Consumers' Time Preference 378 The Time Productivity of Producers 380 Nominal Interest versus Real Interest 380 A Firm's Selection of Investment Projects 381 The Loanable Funds Market 382

Financial Markets in the United States 383

Bonds 383 Stocks, Diversification, and Systematic Risk 384 Growth and Value 386 Efficient Markets 387

Using the Theory: A Corporate Buyout 388