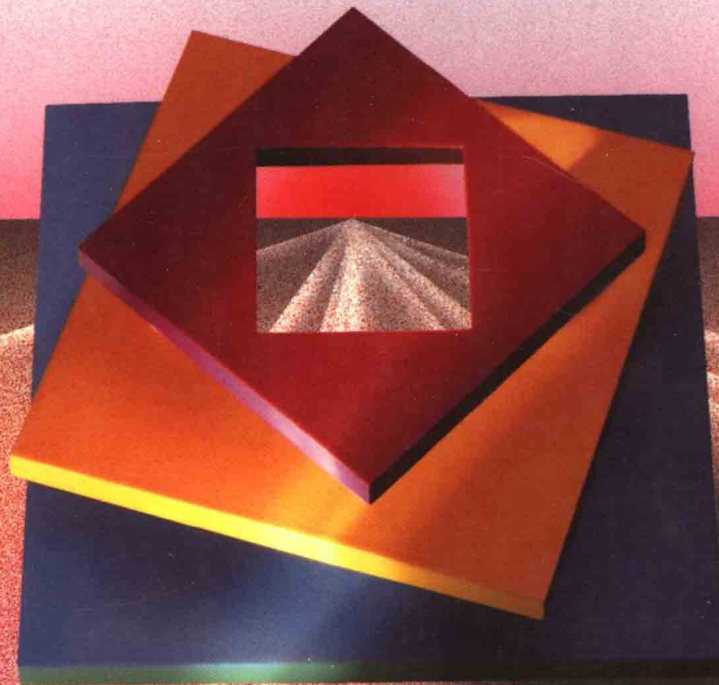


# MICROECONOMICS

SECOND EDITION

MICHAEL PARKIN



UPDATED EDITION

# MICROECONOMICS

SECOND EDITION

MICHAEL PARKIN

UNIVERSITY  
OF  
WESTERN ONTARIO



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*To Robin*

## ABOUT MICHAEL PARKIN

Michael Parkin received his training as an economist at the Universities of Leicester and Essex in England. Currently in the Department of Economics at the University of Western Ontario, Canada, Professor Parkin has held faculty appointments at Brown University, the University of Manchester, and the University of Essex. He has served on the editorial boards of the *American Economic Review* and the *Journal of Monetary Economics* and as managing editor of the *Canadian Journal of Economics*. He is the author of *Macroeconomics* (Prentice-Hall). Professor Parkin's research on macroeconomics, monetary economics, and international economics has resulted in 160 publications in journals and edited volumes, including the *American Economic Review*, the *Journal of Political Economy*, the *Review of Economic Studies*, the *Journal of Monetary Economics*, and the *Journal of Money, Credit and Banking*. It became most visible to the



public with his work on inflation that discredited the use of wage and price controls. Michael Parkin also spearheaded the movement toward European monetary union. Professor Parkin is an experienced and dedicated teacher of introductory economics.



TO CHANGE THE WAY STUDENTS SEE THE world—this is my purpose in teaching economics and has remained my goal in preparing this revision. There is no greater satisfaction for a teacher than sharing the joy of students who have come to understand the powerful lessons of the economic approach. But these lessons are not easy to master. Every day in my classroom, I relearn the challenges of gaining the insights that we call the economist's way of thinking and recall my own early struggles to master this discipline. In preparing this revision, I have been able to draw on the experiences not only of my own students, but also of hundreds of users of the first edition, both instructors and their students.

Three assumptions have guided the choices that

faced me in writing this book. First, students are eager to learn, but they are overwhelmed by the seemingly endless claims on their time and energy. Therefore they want to know why they are being asked to study a

particular body of material and require demonstration of its relevance to their own everyday experience. Second, students expect thoughtful and straightforward explanations, so they can begin to apply the principles they are learning. Third, today's students are more interested in the present and the future than in the past. They want to learn the economics of the 1990s so that, as they enter the twenty-first century, they will be equipped with the principles that will help them understand apparently unpredictable events.



## PREFACE

### Approach



he core of the principles course has been around for more than 100 years, and other important elements, especially parts of the theory of the firm and Keynesian macroeconomics, have been with us for more than 50 years. But economics has also been developing and

changing rapidly during the past few decades. All principles texts pay some attention to these more recent developments, but none has succeeded in integrating the new and traditional. My goal has been to incorporate new ideas—game theory, the modern theory of the firm, information, and public choice—into the body of timeless principles.

The presence of modern topics does not translate into “high level”; nor does it translate into “bias.” At every point, I have striven to make recent developments accessible to beginning students. Where these theories are controversial, alternative approaches are presented, evaluated, and compared.

But this book does have a point of view. It is that economics is a serious, lively, and evolving science—a science that seeks to develop a body of theory powerful enough to explain the economic world around us and that pursues its task by building, testing, and rejecting economic models. Where matters are settled, I present what we know; where controversy persists, I present the alternative viewpoints.

### The Second Edition Update

Consistent with my desire to keep pace with rapid change in the economic landscape, I have made many changes to bring this special updated edition closer to the student’s “real time.” For instance, four of the second edition’s “Reading Between the Lines” features have been replaced. Statistics have been updated through 1992. And the Clinton administration’s first steps in formulating policy have been included.

### Microeconomics and Changes in the Second Edition

The structure of the microeconomics presentation remains consistent with the first edition, but I have made many important changes. I have simplified but vastly increased the range of application of the demand and supply model (Chapter 6) to deal with such issues as who pays a sales tax and trading in prohibited goods. I have expanded the treatment of the marginal utility theory of consumer choice (Chapter 7) to give a stronger graphical derivation of consumer equilibrium and the demand curve. The modern theory of the firm, including principal and agent issues, is given a much simplified treatment in Chapter 9, and isoquants are covered in the appendix to Chapter 10. My presentation of the game theory approach to understanding oligopoly has been

well received for its simple yet serious treatment. In revising the oligopoly chapter (Chapter 13), I recognized that students can gain additional insights from the traditional oligopoly models and included these. A completely new chapter (Chapter 17) deals with the issues arising from uncertainty and incomplete information and illustrates these issues with examples drawn from markets for used cars, insurance, credit, and risky assets. My approach in this chapter is the same as in the rest of the book—to explain a difficult (and in this case relatively new) topic in a clear and accessible way that fits naturally into the core principles sequence. Finally, the discussion of income distribution issues in Chapter 18 now contains a much expanded treatment of income redistribution policies, including the negative income tax.



### Special Features

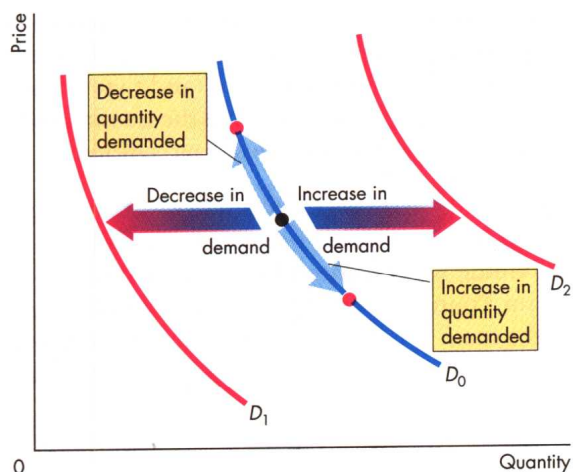
This second edition, like its predecessor, is packed with special features designed to enhance the learning process.

### Art Program

A highly successful innovation in the first edition was the outstanding art program. The art not only was visually attractive and engaging but also communicated the economic principles unambiguously and clearly. We received enormously positive feedback on the art program, confirming our belief that one of the most important tools for economists is graphical analysis and also that this is precisely an area that gives many students much difficulty. In the second edition, we have further refined the data-based art by deriving a style that clearly reveals the data and trends. In addition, diagrams that illustrate economic processes now consistently distinguish key economic players (firms, households, governments, and markets).


Our goal is to show clearly “where the economic action is.” To achieve this, we observe a consistent protocol in style, notation, and use of color, including:

- ◆ Highlighting shifted curves, points of equilibrium, and the most important features in red



- ◆ Using arrows in conjunction with color to lend directional movement to what are usually static presentations
- ◆ Pairing graphs with data tables from which the curves have been plotted
- ◆ Using color consistently to underscore the content and referring to such use of color in the text and captions
- ◆ Labeling key pieces of information in graphs with boxed notes
- ◆ Rendering each piece electronically so that precision is achieved

The entire art program has been developed with the study and review needs of the student in mind. We have retained the following features:

- ◆ Marking the most important figures and tables with a red key  and listing them at the end of the chapter under “Key Figures and Tables”
- ◆ Using complete, informative captions that encapsulate major points in the graph so that students can preview or review the chapter by skimming through the art

## The Interviews

Substantive interviews with famous economists constituted another popular feature in the first edition. I am continuing the tradition and have included all new interviews—nine in total—each with an economist who has contributed significantly to advancing the thinking and practice in our discipline. Three of the interviews are with Nobel laureates: Kenneth Arrow, Ronald H. Coase, and Robert Solow. The

interviews encourage students to participate in the conversations as the economists discuss their areas of specialization, their unique contributions to economics, and also their general insights that are relevant to beginning students.

Each interview opens one of the book’s nine parts and has been carefully edited to be self-contained. Since each interview discusses topics that are introduced formally in the subsequent chapters, students can use it as a preview to some of the terminology and theory they are about to encounter. A more careful reading afterwards will give students a fuller appreciation of the discussion. Finally, the whole series of interviews can be approached as an informal symposium on the subject matter of economics as it is practiced today.

## Reading Between the Lines

Another feature of the previous edition that was well received was “Reading Between the Lines.” These news article spreads help students to build critical thinking skills and to interpret daily news events (and their coverage in the media) using economic principles. I have updated all of the news articles in this edition and have selected topics that appeal to students, such as falling SAT scores, Nintendo rentals, and the environmental debate over the spotted owl. Each “Reading Between the Lines” spread contains three passes at a story. It begins with a facsimile (usually abbreviated) of an actual newspaper or magazine article. It then presents a digest of the article’s essential points. Finally, it provides an economic analysis of the article, based on the economic methods presented in that chapter.

## Our Advancing Knowledge

The fully revised “Our Advancing Knowledge” features help students trace the evolution of path-breaking economic ideas and recognize the universality of their application, not only to the past but to the present. For example, Adam Smith’s powerful ideas about the division of labor apply to the creation of a computer chip as well as to the pin factory of the eighteenth century. And Dionysius Lardner’s 1850s application of demand and supply theory to railroad pricing applies equally to airline pricing today. A new visual design brings excitement and vitality to these inserts, much in the way that the ideas have brought excitement and vitality to economics.



## Learning Aids

We have refined our careful pedagogical plan to ensure that this book complements and reinforces classroom learning. Each chapter contains the following pedagogical elements:

**Objectives** Each chapter opens with a list of objectives that enable students to set their goals as they begin the chapter.

**Chapter Openers** Intriguing puzzles, paradoxes, or metaphors frame the important questions that are unraveled and resolved as the chapter progresses.

**Highlighted In-Text Reviews** Succinct summaries for review are interspersed throughout the chapter at the ends of sections.

**Key Terms** Highlighted within the text, these concepts form the first part of a three-tiered review of economic vocabulary. These terms are repeated with page references at chapter ends and compiled in the end-of-book glossary.

**Key Figures and Tables** The most important figures and tables are identified with the red key and listed at chapter end. 

**End-of-Chapter Study Material** Chapters conclude with summaries organized around major headings, lists of key terms with page references, lists of key figures and tables with page references, review questions, and problems. In the second edition, we have added many new problems.

## Flexibility

I have tried to accommodate a wide range of teaching approaches by building flexibility and optionality into the book. There are several optional sections, which are indicated by footnote. These may be omitted with no loss of continuity.

### The Teaching and Learning Package

O

ur fully integrated text and supplements package provides students and professors with a seamless teaching and

learning experience. The authors of the components are outstanding educators and scholars and have brought their own human capital (and that of their students!) to the job of improving the quality and value of the ancillaries for the second edition.

**Study Guide** Now available in microeconomics and macroeconomics split versions, the revised Study Guide was prepared by David Spencer of Brigham Young University. Carefully coordinated with the main textbook, each chapter of the Study Guide contains: Chapter in Perspective; Learning Objectives; Helpful Hints; Self-Test (concepts review, true/false, multiple-choice, and short-answer questions, and problems) and Answers to Self-Test; and Key Figures and Tables.

### Economics in the News with Video Selections

Updated with all new articles, this unique workbook extends the “Reading Between the Lines” feature of the textbook. Prepared by Saul Pleeter (U.S. Department of Defense) and Philip Way of the University of Cincinnati, the supplement includes eighty-five recent news articles organized according to the topical outline of the textbook. An introductory paragraph, learning objectives, and preview precede a facsimile of each article, which is accompanied by analytical questions that give students practice in developing their ability to think like economists. In this edition we have also incorporated ten video excerpts from the MacNeil-Lehrer Business Reports. Just as for the print articles, Pleeter and Way provide a series of probing questions to help students dissect the economic principles that underlie the issues illustrated in the video news clips.

**Instructor’s Manual for Economics in the News** The solutions to questions and problems in Economics in the News are available to instructors upon request from the Business and Economics Group at Addison-Wesley.

**Test Item File** Thoroughly revised test items were prepared by David Denslow of the University of Florida and Barbara Haney Martinez of the Center for Economic Education at the University of Alaska, Fairbanks. The file includes over 4,000 multiple choice questions, about half of which are new to this edition. All questions have been reviewed carefully for accuracy by Robert Horn and Sharon O’Hare at James Madison University. Each chapter includes a

section of questions that are directly from the Study Guide and a section of questions that parallel those in the Study Guide.

**Computerized Test Item File** Testing software with graphics capability for IBM-PC and compatible microcomputers or Macintosh microcomputers is available to qualified adopters.

**Instructor's Manual** A brand new Instructor's Manual has been prepared by Mark Rush of the University of Florida. It includes detailed chapter outlines and teaching suggestions; cross-references to the color acetates, videos, and software; answers to all review questions and problems in the textbook; additional discussion questions; information on material new to the second edition; explanations of how each chapter relates to the rest of the book; and a flexibility guide for different course sequences.

**Acetates and Overlays** Key figures from the text are rendered in full color on the acetates. There are 180 acetates, of which 70 have overlays. The acetates are available to qualified adopters of the textbook (contact your Addison-Wesley sales representative).

**MacNeil-Lehrer Business Reports Videos** An exclusive from Addison-Wesley, these videos illustrate economic principles in action via highly topical news stories. Ten video selections, split evenly between macroeconomic and microeconomic concepts, can be used in conjunction with either the textbook or the Economics in the News supplement. The videos are free to adopters.

**Video Guide to MacNeil-Lehrer Business Reports** Helpful teaching notes and discussion questions for using videos in the classroom, as well as relevant graphics prepared as transparency masters, are provided free to adopters.

**"Economics in Action" Software** New to this edition is truly interactive tutorial software available for both IBM-compatible and Macintosh computers. This software was created specifically for this text by Douglas McTaggart (co-author of the Australian edition of this book) and David Gould of Bond University, Paul Davies of the University of Melbourne, and myself, with a great deal of help from the many people thanked below. The software includes modules on core concepts such as graphing,

production possibilities and opportunity cost, demand and supply, elasticity, utility and demand, product curves and cost curves, perfect competition, monopoly, macroeconomic performance, aggregate demand and aggregate supply, expenditure multipliers, money and banking, and international trade.

Three interactive modes take full advantage of the computer's capability to facilitate critical thinking skills. First, a tutorial mode walks students through the central concepts. Second, a quiz mode enables guided self-testing. Third, a free mode allows students and professors to interact with economic models by changing parameters and observing the effects on the graphs. For professors, a special disk is available that extends this capability to generating electronic transparencies for dynamic use in the classroom.

In addition to its emphasis on interaction, the software is also closely integrated with the text. The art style is the same, the terminology is consistent, and supporting material in the text is cross-referenced in the software.

The software has its own authoring language that enables professors to customize tutorials, quizzes, and graphs to fit their own course material. The software has been fully tested and reviewed for accuracy. An Economics in Action Instructor's Guide is available.

## Acknowledgments



The endeavor of creating a principles textbook involves the creative collaboration and contribution of many individuals. Although the extent of my debts cannot be fully acknowledged here, it is nevertheless a joy to record my gratitude to the many people who have helped, some without realizing just how helpful they were.

I want to thank those of my colleagues at the University of Western Ontario who have taught me a great deal that can be found in these pages: Jim Davies, Jeremy Greenwood, Ig Horstmann, Peter Howitt, Greg Huffman, David Laidler, Phil Reny, Chris Robinson, John Whalley, and Ron Wonnacott.

I want to extend a special thanks to Glenn MacDonald, who worked well beyond the call of duty discussing this project with me from its outset, helping me develop many of the pedagogical features and reading and commenting in detail on all the micro chapters. Special thanks also go to Doug McTaggart of Bond University and Christopher Findlay of the University of Adelaide, co-authors of the Australian edition, and David King, co-author of the European edition. Their suggestions arising from their adaptations of the first edition have been extremely helpful in fine-tuning this edition. More than that, Doug and I worked together on the early drafts of the new chapter on uncertainty and information in the perfect Queensland winter of 1991.

I also want to acknowledge my debt to those who have had a profound influence on my whole view of and approach to economics and whose influence I can see in these pages. Although I never sat in their classrooms, they are in a very real sense my teachers. I am especially grateful to John Carlson (Purdue University), Carl Christ (Johns Hopkins University), Robert Clower (University of South Carolina), Ed Feige (University of Wisconsin at Madison), Herschel Grossman (Brown University), and Sam Wu (University of Iowa). I also want to place on record my enormous debt to the late Karl Brunner. The energy, drive, and entrepreneurship of this outstanding economist provided me and my generation of economists with incredible opportunities to interact and learn from each other in a wide variety of conference settings, in both the United States and Europe.

It is also a pleasure to acknowledge my debt to the several thousand students to whom I have been privileged to teach introductory economics. The instant feedback that comes from the look of puzzlement or enlightenment has taught me, more than anything else, how to teach economics.

Producing a text such as this is a team effort, and the members of the Addison-Wesley "Parkin Team" are genuine co-producers of this book. I am especially grateful to and have been truly inspired by Barbara Rifkind, an extraordinary editor who, as executive editor, created and directed the team with whom it has been a privilege to work. I am also deeply indebted to my development editor, Marilyn Freedman. The personal dedication and professional skill that she brought to the task of crafting the book's broad thrust and fine details and her commit-

ment to making the book as interesting, effective, and error-free as possible were extraordinary. High praise and great thanks go to Loren Hilgenhurst Stevens, who, as production supervisor, coordinated the entire production process, coping calmly and decisively with the cascading crises that daily crossed her desk as she brought all the many complex elements together. Sincere thanks also to Marjorie Williams, who, as senior economics editor, managed and coordinated all the interviews and devised the weekly workload memo that kept my nose pointed firmly in the desired direction; Dave Theisen, business and economics marketing manager, who devised and managed the marketing plan; Kari Heen, assistant editor, whose cheery voice and friendly faxes lifted the sagging spirits in just the right way at just the right time; and especially Cindy Johnson, project manager of the supplements, whose outstanding editorial and managerial skills and personal commitment have brought together a state-of-the-art teaching and learning package. Great thanks go to Loretta Bailey, Janice Mello, Sherry Berg, Sharon Cogdill, Phyllis Coyne, Kelley Hersey, Jane Hoover, Karen Lehman, Stephanie Magean, Dick Morton, Kazia Navas, Meredith Nightingale, and Barbara Willette.

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I have left until last four people to whom I want to give special thanks. First, my wife, colleague, best friend, and co-author of the Canadian edition, Robin Bade, has been almost a co-author of this work. She has read every word that I have written, commented in detail on every draft, and helped manage the project from its conception to its conclusion. Without the anticipation of her help and its availability, I could not have contemplated embarking on this project. Finally, I want to acknowledge

the help and inspiration of my children, Catherine, Richard, and Ann. Through the years when I was developing and writing the first edition, they were going through various stages of high school and college. They forced me to craft a book that they could understand and found interesting. In preparing this edition, I have been especially helped by Richard, who became a Harvard Graphics wizard and created the entire art manuscript.

The empirical test of this textbook's value continues to be made in the classroom. I would appreciate *hearing from instructors and students about how I might continue to improve the book in future editions.*

*Michael Parkin*  
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**CHAPTER 22:** Nineteenth-century clipper ship card (p. 592), Museum of the City of New York. Container ship (p. 593), Sea-Land Corporation. David Ricardo (p. 593), Historical Pictures/Stock Montage.

**CHAPTER 23:** Chinese peasant farmers (p. 616), Mark Riboud/Magnum. Affluent contemporary Chinese couple (p. 617), Owen Franken/Stock Boston. Karl Marx (p. 617), The Bettmann Archive.

# BRIEF CONTENTS

## **PART 1** INTRODUCTION 1

- Chapter 1 What Is Economics? 5
- Chapter 2 Making and Using Graphs 27
- Chapter 3 Production, Specialization, and Exchange 49
- Chapter 4 Demand and Supply 71

## **PART 2** HOW MARKETS WORK 97

- Chapter 5 Elasticity 101
- Chapter 6 Markets in Action 124

## **PART 3** HOUSEHOLDS' CHOICES 152

- Chapter 7 Utility and Demand 156
- Chapter 8 Possibilities, Preferences, and Choices 178

## **PART 4** FIRMS' CHOICES 203

- Chapter 9 Organizing Production 207
- Chapter 10 Output and Costs 231

## **PART 5** MARKETS FOR GOODS AND SERVICES 274

- Chapter 11 Competition 278
- Chapter 12 Monopoly 312
- Chapter 13 Monopolistic Competition and Oligopoly 340

## **PART 6** MARKETS FOR FACTORS OF PRODUCTION 327

- Chapter 14 Pricing and Allocating Factors of Production 376
- Chapter 15 Labor Markets 406
- Chapter 16 Capital and Natural Resource Markets 427

## **PART 7** MARKETS, UNCERTAINTY, AND DISTRIBUTION 454

- Chapter 17 Uncertainty and Information 458
- Chapter 18 The Distribution of Income and Wealth 484

## **PART 8** MARKETS AND GOVERNMENT 512

- Chapter 19 Market Failure 516
- Chapter 20 Public Choice 536
- Chapter 21 Regulation and Antitrust Law 557

## **PART 9** INTERNATIONAL ECONOMICS 577

- Chapter 22 Trading with the World 581
- Chapter 23 Economic Systems in Transition 608

# PART I

## INTRODUCTION

TALKING WITH ROBERT SOLOW 1

# CONTENTS

## CHAPTER 1 What Is Economics? 5

*Choice and Change* 6

*Wages and Earnings* 7

*Government, Environment, and Economic Systems* 7

*Unemployment* 7

*Inflation* 8

*International Trade* 8

*Wealth and Poverty* 8

Scarcity 9

Economic Activity 9

Choice 10

Opportunity Cost 10

Competition and Cooperation 11

The Economy 12

What Is the Economy? 12

Decision Makers 13

Markets 14

Decisions 14

Coordination Mechanisms 14

The Global Economy 16

Economic Science 17

What Is and What Ought To Be 17

Observation and Measurement 18

Economic Theory 18

Economic Model 18

Microeconomic and Macroeconomic Models 20

Model, Theory, and Reality 21

## OUR ADVANCING KNOWLEDGE

UNDERSTANDING THE SOURCES OF ECONOMIC WEALTH 22

Summary 24

Key Elements 25

Review Questions 25

Problems 26



**CHAPTER 2** Making and Using Graphs 27

*Three Kinds of Lies* 28

**Graphing Data** 29

Two-Variable Graphs 29

Scatter Diagrams 30

Time-Series Graphs 32

**Graphs Used in Economic Models** 38

Things That Go Up and Down Together 38

Things That Move in Opposite Directions 38

Things That Have a Maximum and a Minimum  
40

Things That Are Independent 41

**The Slope of a Relationship** 42

Calculating Slope of a Straight Line 42

Calculating Slope of a Curved Line 43

**Graphing Relationships among More Than Two  
Variables** 44

Other Things Being Equal 44

**READING BETWEEN THE LINES**

**GRAPHS IN ACTION** 36

Summary 46

Key Elements 46

Review Questions 47

Problems 47

**CHAPTER 3** Production, Specialization,  
and Exchange 49

*Making the Most of It* 50

**The Production Possibility Frontier** 51

A Model Economy 51

Jane's Preferences 53

**Opportunity Cost** 54

The Best Alternative Forgone 54

Measuring Opportunity Cost 54

Increasing Opportunity Cost 54

The Shape of the Frontier 54

Everything Has an Increasing Opportunity Cost  
54

Production Possibilities in the Real World 56

**Economic Growth** 57

The Cost of Economic Growth 57

Capital Accumulation and Technological Change  
57

Economic Growth in the Real World 59

**Gains from Trade** 60

Comparative Advantage: Jane Meets Joe 60

Achieving the Gains from Trade 61

Productivity and Absolute Advantage 62

**Exchange in the Real World** 63

Property Rights 63

Money 66

**READING BETWEEN THE LINES**

**THE GAINS FROM SPECIALIZATION AND EXCHANGE**  
64

Summary 67

Key Elements 68

Review Questions 68

Problems 69