

MICROECONOMICS

CANADA IN THE GLOBAL ENVIRONMENT **NINTH EDITION**



PARKIN



BADE

MICROECONOMICS

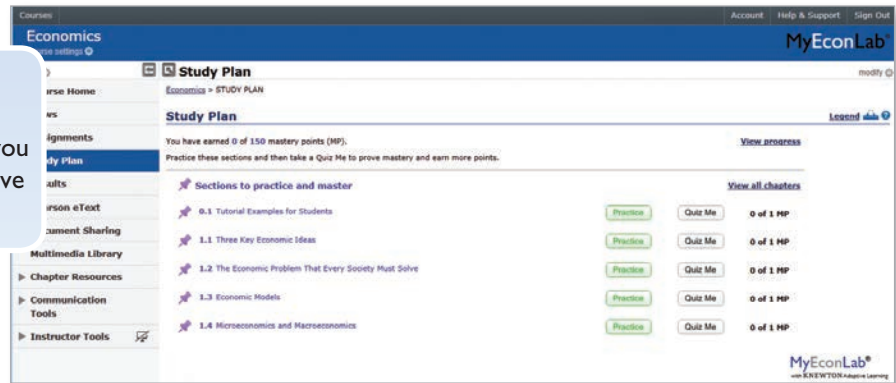
CANADA IN THE GLOBAL ENVIRONMENT NINTH EDITION

MyEconLab[®] Provides the Power of Practice

Optimize your study time with **MyEconLab**, the online assessment and tutorial system. When you take a sample test online, **MyEconLab** gives you targeted feedback and a personalized Study Plan to identify the topics you need to review.

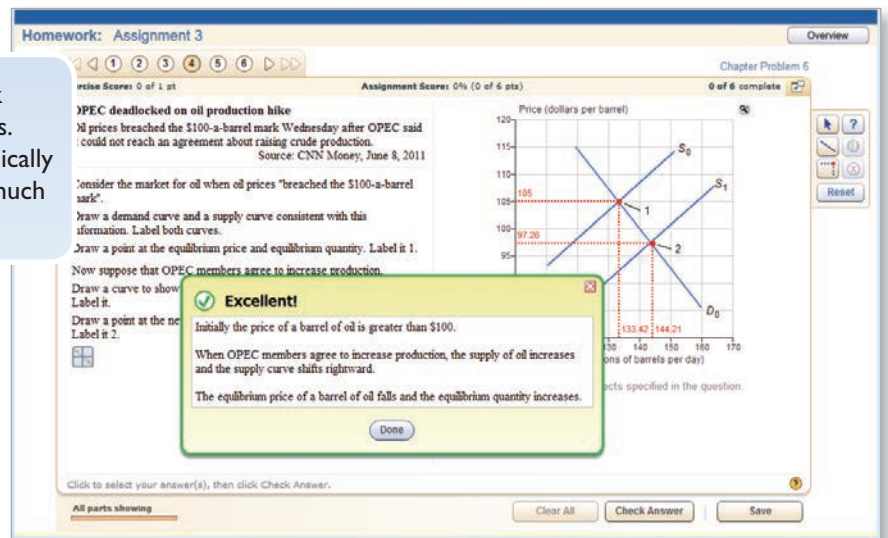
Study Plan

The Study Plan shows you the sections you should study next, gives easy access to practice problems, and provides you with an automatically generated quiz to prove mastery of the course material.



Unlimited Practice

As you work each exercise, instant feedback helps you understand and apply the concepts. Many Study Plan exercises contain algorithmically generated values to ensure that you get as much practice as you need.



Learning Resources

Study Plan problems link to learning resources that further reinforce concepts you need to master.

- **Help Me Solve This** learning aids help you break down a problem much the same way as an instructor would do during office hours. Help Me Solve This is available for select problems.
- **eText links** are specific to the problem at hand so that related concepts are easy to review just when they are needed.
- A **graphing tool** enables you to build and manipulate graphs to better understand how concepts, numbers, and graphs connect.

MyEconLab[®]

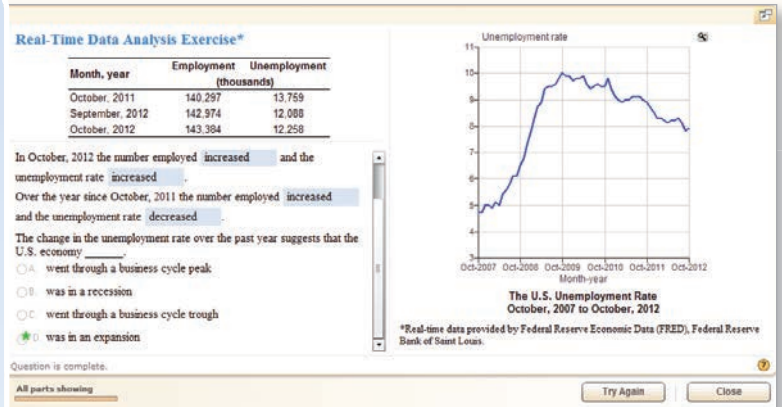
Find out more at www.myeconlab.com

Real-Time Data Analysis Exercises

Up-to-date macro data is a great way to engage in and understand the usefulness of macro variables and their impact on the economy. Real-Time Data Analysis exercises communicate directly with the Federal Reserve Bank of St. Louis's FRED site, so every time FRED posts new data, students see new data.

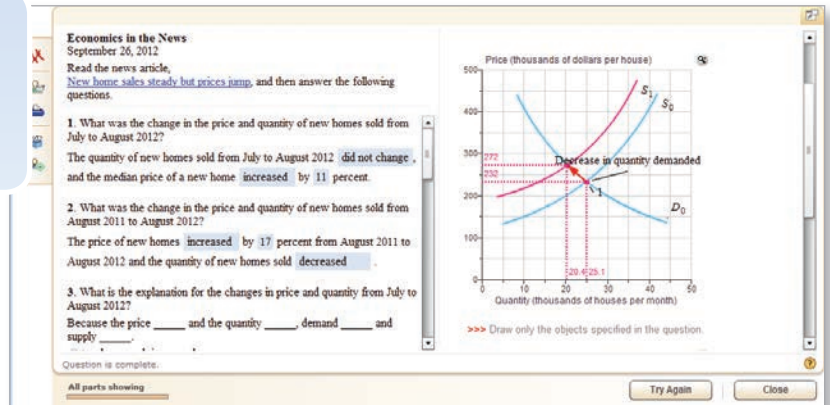
End-of-chapter exercises accompanied by the Real-Time Data Analysis icon include Real-Time Data versions in **MyEconLab**.

Select in-text figures labelled **MyEconLab** Real-Time Data update in the electronic version of the text using FRED data.



Current News Exercises

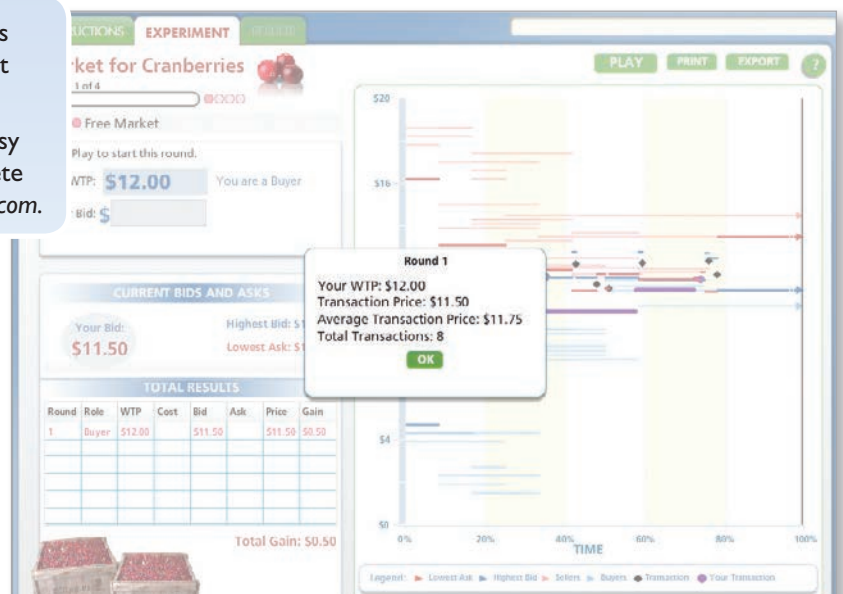
Posted weekly, we find the latest microeconomic and macroeconomic news stories, post them, and write auto-graded multi-part exercises that illustrate the economic way of thinking about the news.



Interactive Homework Exercises

Participate in a fun and engaging activity that helps promote active learning and mastery of important economic concepts.

Pearson's experiments program is flexible and easy for instructors and students to use. For a complete list of available experiments, visit www.myeconlab.com.



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MICHAEL PARKIN  ROBIN BADE

PEARSON

Toronto

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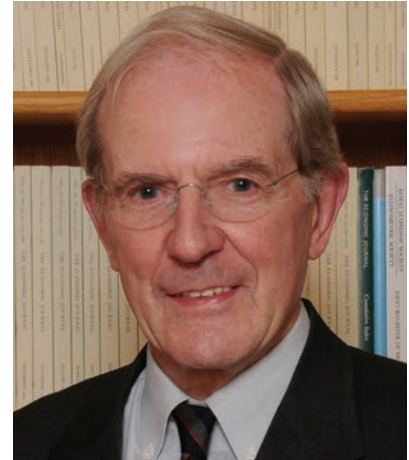


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TO OUR STUDENTS

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Michael Parkin received his training as an economist at the Universities of Leicester and Essex in England. He is Professor Emeritus 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, the University of Essex, and Bond University. He is a past president of the Canadian Economics Association and 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*. Professor Parkin's research on macroeconomics, monetary economics, and international economics has resulted in over 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*. He 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 towards European monetary union.



Robin Bade earned degrees in mathematics and economics at the University of Queensland and her Ph.D. at the Australian National University. She has held faculty appointments at the University of Edinburgh in Scotland, at Bond University in Australia, and at the Universities of Manitoba, Toronto, and Western Ontario in Canada. Her research on international capital flows appears in the *International Economic Review* and the *Economic Record*. Professor Parkin and Dr. Bade are the joint authors of *Foundations of Economics* (Addison Wesley), *Modern Macroeconomics* (Pearson Education Canada), an intermediate text, and have collaborated on many research and textbook writing projects. They are both experienced and dedicated teachers of introductory economics.



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PART ONE**INTRODUCTION** 1

- CHAPTER 1 What Is Economics? 1
 CHAPTER 2 The Economic Problem 31

PART TWO**HOW MARKETS WORK** 55

- CHAPTER 3 Demand and Supply 55
 CHAPTER 4 Elasticity 83
 CHAPTER 5 Efficiency and Equity 105
 CHAPTER 6 Government Actions in Markets 127
 CHAPTER 7 Global Markets in Action 151

PART THREE**HOUSEHOLDS' CHOICES** 177

- CHAPTER 8 Utility and Demand 177
 CHAPTER 9 Possibilities, Preferences, and Choices 201

PART FOUR**FIRMS AND MARKETS** 223

- CHAPTER 10 Organizing Production 223
 CHAPTER 11 Output and Costs 247
 CHAPTER 12 Perfect Competition 271
 CHAPTER 13 Monopoly 297
 CHAPTER 14 Monopolistic Competition 323
 CHAPTER 15 Oligopoly 341

PART FIVE**MARKET FAILURE AND GOVERNMENT** 369

- CHAPTER 16 Externalities 369
 CHAPTER 17 Public Goods and Common Resources 391

PART SIX**FACTOR MARKETS AND INEQUALITY** 413

- CHAPTER 18 Markets for Factors of Production 413
 CHAPTER 19 Economic Inequality 439

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The future is always uncertain. But at some times, and now is one such time, the range of possible futures is enormous. The major sources of this uncertainty are economic policy and global macroeconomic forces. There is uncertainty about the way in which international trade policy will evolve as bilateral deals reshape the competitive landscape. There is uncertainty about exchange rate policy as currency fluctuations bring changes in international relative prices. There is extraordinary uncertainty about monetary policy with the Bank of Canada holding interest rates at historical lows in an attempt to stimulate a flagging economy. And there is uncertainty about fiscal policy as provincial budget deficits interacting with an aging population are ever harder to control. In the global economy, there is uncertainty about when, or even whether, a stagnating European economy will start to show life. And there is uncertainty about how fast China, India, and other developing economies will grow.

Since the global financial crisis of August 2007 moved economics from the business report to the front page, a fall in confidence has gripped producers, consumers, financial institutions, and governments.

Even the idea that the market is an efficient allocation mechanism has come into question. Many thoughtful people worry about increasing income inequality, and some political leaders called for the end of capitalism and the dawn of a new economic order in which tighter regulation reined in unfettered greed.

Rarely do teachers of economics have such a rich feast on which to draw. And rarely are the principles of economics more surely needed to provide the solid foundation on which to think about economic events and navigate the turbulence of economic life.

Although thinking like an economist can bring a clearer perspective to and deeper understanding of today's events, students don't find the economic way of thinking easy or natural. *Microeconomics* seeks to put clarity and understanding in the grasp of the student with a careful and vivid exploration of the tension between self-interest and the social interest, the role and power of incentives—of opportunity cost and marginal benefit—and demonstrating the possibility that markets supplemented by other mechanisms might allocate resources efficiently.

Parkin-Bade students begin to think about issues the way real economists do and learn how to explore policy problems and make better-informed decisions in their own economic lives.

The Ninth Edition Revision

Thoroughly updated, intuitive rather than technical, grounded in data and empirical evidence, extensively illustrated with well-chosen examples and photographs, enlivened with applications that focus on issues at play in today's world, focused on learning by doing, and seamlessly integrated with MyEconLab: These are the hallmarks of this ninth edition of *Microeconomics: Canada in the Global Environment*.

This revision builds on the foundation of the previous edition and retains a thorough and careful presentation of the principles of economics, an emphasis on real-world examples and applications, the development of critical thinking skills, diagrams renowned for clarity, and path-breaking technology.

Most chapters have been thoroughly reworked to achieve even greater clarity and to place greater emphasis on applications to current issues. Some sections of chapters have been removed and other sections added to cover new issues, particularly those that involve current policy problems.

Economics in the News, a weekly feature on MyEconLab, appears in the revised text in two ways. First, the Parkin-Bade hallmark chapter-closing *Reading Between the Lines* is rebranded as *Economics in the News*. Second, additional *Economics in the News* boxes appear at appropriate points within chapters.

The aim of the end-of-chapter news feature is to encourage students to apply the tools they have learned in the chapter by analyzing an article from a newspaper or an online news source. The news article connects with the questions first raised in the chapter opener, and the analysis is reinforced with a related end-of-chapter problem.

Shorter, within-chapter *Economics in the News* boxes present brief news clips, relevant data, questions, and worked solutions. These boxes immediately apply a tool just explained and provide hand-held practice and help in approaching an economic analysis of the news.

A second new feature, **At Issue**, shows two sides of a controversial issue and helps students apply the economic way of thinking to clarify and debate the issues.

A third new feature is a full-page end-of-chapter **Worked Problem**. As part of the chapter review, the student has an opportunity to work a multi-part problem that covers the core content of the chapter and consists of questions, solutions, and key figures. This new feature increases the incentive for the student to learn by doing and actively, rather than passively, review the chapter.

Highpoints of the Revision

In addition to the new features that we have just reviewed, we have built on the strengths of the previous edition by substantially revising the following two topics. They are:

- Price discrimination
- Carbon emissions and climate change externalities

Price Discrimination Chapter 13, Monopoly, has revised coverage of price discrimination, which emphasizes the key idea that price discrimination converts consumer surplus into producer surplus and economic profit. To strengthen this insight, we now begin with a brief explanation of the relationship between producer surplus and economic profit. We then use a carefully constructed model of two separated markets to show how discrimination between them can increase producer surplus. We build on this model to show how perfect price discrimination, if it were possible, would grab the entire consumer surplus and convert it to producer surplus. We illustrate the attempt to move toward perfect price discrimination with applications to Microsoft’s pricing of Windows and Disney’s pricing of tickets to its theme parks.

Carbon Emissions and Climate Change

Externalities Chapter 16, Externalities, gets a thoroughly new treatment of carbon emission and climate change. We begin by contrasting the success story of local air quality in the major cities with the unrelenting rise in atmospheric carbon concentration. We then explain the three methods of coping with environmental externalities: property rights, mandating the use of clean technologies, and taxing or pricing emissions. We explore the ability of each method to achieve an efficient outcome. We also explore the special challenge that arises from the global rather than national scope of carbon emission. The climate change debate appears in an *At Issue*, which contrasts the views of Nicholas Stern and environmental skeptic Bjørn Lomborg.

Many other chapters have been thoroughly reworked to achieve even greater clarity and to place greater emphasis on applications to current issues. And every chapter now contains a new opening vignette linked directly to an *Economics in the News*, an end-of-chapter problem, and online practice.

All the end-of-chapter *Economics in the News* articles have been updated, and the analysis of the news and the linked problems and applications have been appropriately revised.

Features to Enhance Teaching and Learning

The changes that we have described are adjustments to an already powerful teaching and learning package. Here, we briefly review the features retained from the previous edition.

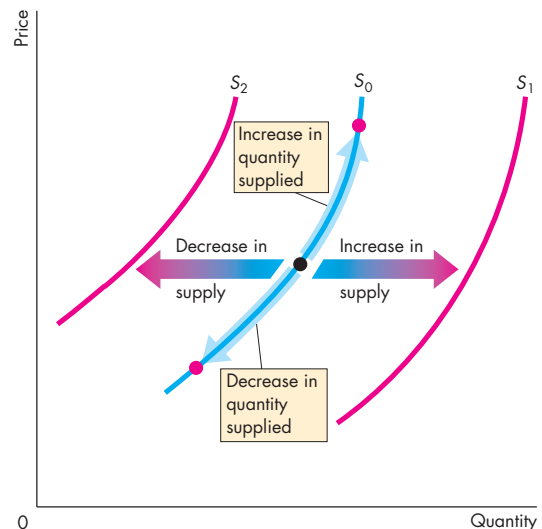
Diagrams That Show the Action

Through the past eight editions, this book has set the standard of clarity in its diagrams; the ninth edition continues to uphold this tradition. Our goal is to show “where the economic action is.” The diagrams in this book continue to generate an enormously positive response, which confirms our view that graphical analysis is the most powerful tool available for teaching and learning economics at the principles level.

Because many students find graphs hard to work with, we have developed the entire art program with the study and review needs of the student in mind.

The diagrams feature:

- Original curves consistently shown in blue
- Shifted curves, equilibrium points, and other important features highlighted in red
- Colour-blended arrows to suggest movement
- Graphs paired with data tables
- Diagrams labelled with boxed notes
- Extended captions that make each diagram and its caption a self-contained object for study and review



Economics in Action Boxes

This feature uses boxes within the chapter to provide data and information that links models to real-world economic activity.

Some of the issues covered in these boxes include the best affordable choice of recorded music, movies, and DVDs; the cost of selling a pair of shoes; how Apple doesn't make the iPhone; taxing carbon emissions; how long a spell of poverty lasts; structural unemployment in Canada; how loanable funds fuel a home price bubble; the Canadian business cycle; and the size of the fiscal stimulus multipliers.

Chapter Openers

Each chapter opens with a student-friendly vignette that raises questions to motivate the student and focus the chapter. This chapter-opening story is woven into the main body of the chapter and is explored in the *Economics in the News* feature that closes each chapter.

In-Text Review Quizzes

A review quiz at the end of each major section enables students to determine whether a topic needs further study before moving on. This feature includes a reference to the appropriate MyEconLab study plan and a new **key terms quiz** to help students further test their understanding.

End-of-Chapter Study Material

Each chapter closes with a concise summary organized by major topics, a list of key terms with page references, a worked problem, and problems and applications. These learning tools provide students with a summary for review and exam preparation.

Interviews with Economists

Each part closes with an overview of the chapters and a teaser of an interview with a leading economist whose work correlates to what the student is learning. These interviews explore the education and research of these prominent economists and their advice for those who want to continue the study of economics. This edition has new interviews with Esther Duflo (MIT) and Raj Chetty (Harvard). The 65 past and present interviews we have conducted are available in full in MyEconLab.

For the Instructor

This book enables you to focus on the economic way of thinking and choose your own course structure in your principles course.

Focus on the Economic Way of Thinking

As an instructor, you know how hard it is to encourage a student to think like an economist. But that is your goal. Consistent with this goal, the text focuses on and repeatedly uses the central ideas of choice; tradeoff; opportunity cost; the margin; incentives; the gains from voluntary exchange; the forces of demand, supply, and equilibrium; the pursuit of economic rent; the tension between self-interest and the social interest; and the scope and limitations of government actions.

Flexible Structure

You have preferences for how you want to teach your course, and we've organized this book to enable you to choose your teaching path. The charts on p. xxiii illustrate the book's flexibility. By following the arrows through the charts you can select the path that best fits your preference for course structure. Whether you want to teach a traditional course that blends theory and policy, or one that takes a fast-track through either theory or policy issues, *Microeconomics: Canada in the Global Environment* gives you the choice.

Instructor's Supplemental Resources

The supplements for instructors are:

- Test Bank
- PowerPoint Resources
- Instructor's Manual
- Solutions Manual

Test Bank The ninth edition Test Bank (Test Item File), with more than 3,000 multiple-choice questions, has been prepared by Jeannie Gillmore of the University of Western Ontario. Jeannie has reviewed and edited all existing questions to ensure their clarity and consistency with the ninth edition and incorporated new questions. The new questions follow the style and format of the end-of-chapter text problems and provide the instructor with a whole

new set of testing opportunities and/or homework assignments. Test Item File questions are available in MyEconLab for instructors to use in a test, quiz, or as homework.

Pearson's **Computerized Test Bank** allows instructors to filter and select questions to create quizzes, tests, or homework. Instructors can revise questions or add their own, and may be able to choose print or online options. These questions are also available in Microsoft Word® format.

PowerPoint Resources Our full-colour Microsoft PowerPoint® Presentations for each chapter contain:

- Lecture notes with all the textbook figures animated, tables from the textbook, and speaking notes from the Instructor's Manual
- Large-scale versions of all the textbook figures and tables, animated for instructors to incorporate into their own slide shows
- A set of lecture notes for students, which include animated versions of the textbook figures

The presentations can be used electronically in the classroom or printed to create hard-copy transparency masters. A student version of the lecture notes is also available on MyEconlab.

Instructor's Manual Our Instructor's Manual integrates the teaching and learning resources and serves as a guide to all the supplements. Each chapter contains an overview, a list of what's new in the ninth edition, and ready-to-use lecture notes.

A new user can walk into a classroom armed to deliver a polished lecture. The lecture notes provide an outline of the chapter; concise statements of key material; alternative tables and figures; key terms and definitions; boxes that highlight key concepts, provide an interesting anecdote, or suggest how to handle a difficult idea; and additional discussion questions. The PowerPoint® lecture notes incorporate the chapter outlines and teaching suggestions.

Solutions Manual Our comprehensive Solutions Manual provides instructors with solutions to the Review Quizzes and the end-of-chapter Problems and Applications.

Getting Your Instructor's Resources

Instructors can download supplements from a secure, instructor-only source via the Pearson Canada Higher Education Instructor Resource Centre Web page (www.pearsoncanada.ca/highered). Instructor resources are also available on a DVD.

Instructor's Resource Centre DVD (IRDVD) Fully compatible with Windows and Macintosh, this IRDVD contains Adobe PDF files of the Test Item File, the Solutions Manual, and the Instructor's Manual; PowerPoint resources; and the TestGen. Locate your local Pearson Canada sales representative at <http://catalogue.pearsoned.ca/educator> to request a copy of the IRDVD.

Other Instructor Aids

CourseSmart CourseSmart goes beyond traditional expectations—providing instant, online access to the textbooks and course materials you need at a lower cost for students. And even as students save money, you can save time and hassle with a digital eTextbook that allows you to search for the most relevant content at the very moment you need it. Whether it's evaluating textbooks or creating lecture notes to help students with difficult concepts, CourseSmart can make life a little easier. See how when you visit www.coursesmart.com/instructors.

Learning Solutions Managers Pearson's Learning Solutions Managers work with faculty and campus course designers to ensure that Pearson technology products, assessment tools, and online course materials are tailored to meet your specific needs.

This highly qualified team is dedicated to helping schools take full advantage of a wide range of educational resources by assisting in the integration of a variety of instructional materials and media formats. Your local Pearson Canada sales representative can provide you with more details on this service program.

Pearson Custom Library For enrollments of 25 students or more, you can create your own textbook by choosing the chapters of Parkin-Bade *Microeconomics* that best suit your own course needs. To begin building your custom text, visit www.pearsoncustomlibrary.com.



The Parkin-Bade MyEconLab has been designed and refined with a single purpose in mind: to create those moments of understanding that transform the difficult into the clear and obvious. With homework, quiz, test, activity, and tutorial options, instructors can manage all their assessment needs in one program.

- All of the Review Quiz questions and end-of-chapter Problems and Applications were recreated as assignable auto-graded exercises with targeted feedback and related “Help Me Solve This” tools by Robin Bade, Jeannie Gillmore of the University of Western Ontario, and Sharmistha Nag of Fairleigh Dickinson University, and were reviewed for accuracy by Trevor Collier of the University of Dayton.
- All of the Review Quiz questions and end-of-chapter Problems and Applications are assignable and automatically graded in MyEconLab.
- The Review Quiz questions and end-of-chapter Study Plan Problems and Applications are available for students to work in the adaptive Study Plan.
- The end-of-chapter Additional Problems and Applications are not available to students in MyEconLab unless assigned by the instructor.
- Many of the problems and applications are algorithmic, draw-graph, and numerical exercises.
- Problems and applications that use real-time data continuously update.
- The Custom Exercise Builder enables instructors to create their own problems for assignment.
- The Gradebook records each student’s performance and time spent on the Tests and Study Plan and generates reports by student or by chapter.
- Test Bank questions are also assignable for test, quiz, or homework and auto-graded in MyEconLab.

Enhanced Pearson eText and New Interactive Features

New for the ninth edition is an enhanced Pearson eText that integrates directly with MyEconLab’s Study Plan, now powered by Knewton Adaptive Learning, and with MyEconLab’s Gradebook.

The enhanced Pearson eText is available within the online course materials and offline via an iPad

app. The eText also allows instructors and students to highlight, bookmark, and take notes. In addition, instructors can create notes and push them out to students.

The new eText includes videos, animations, and problem-solving tools designed to aid comprehension and bring those moments of discovery that stick in the memory.

The features of the enhanced eText include:

- Embedded MyEconLab Study Plan and assessment
- Figure animations
- Interactive graph-drawing exercises
- More *Economics in the News*
- Worked problems
- Key terms quizzes

Embedded MyEconLab Study Plan and

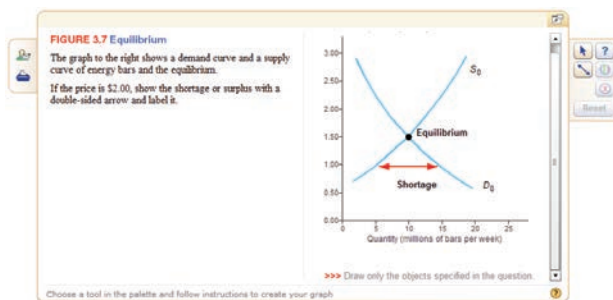
Assessment In the enhanced eText, every Review Quiz question and Study Plan Problem and Application exercise can be worked by the student directly from the eText page on which it occurs. These exercises are auto-graded and feed into MyEconLab’s Adaptive Study Plan, where students receive recommendations based upon their performance. Study Plan links provide opportunities for more practice with problems similar to those in the text and give targeted feedback to guide the student in answering the exercises.

Figure Animations Every textbook figure can be worked through using a step-by-step animation, with audio, to help students learn the intuition behind reading and interpreting graphs. These animations may be used for review or as an instructional aid in the classroom.

More Economics in the News Each in-text *Economics in the News* is reinforced through an extended application of the same analysis. These *Economics in the News* problems are auto-graded and feed into MyEconLab’s Adaptive Study Plan.

Worked Problems Each chapter concludes with a Worked Problem that consists of questions, solutions, and key figures. These problems can be worked in the enhanced eText directly from the Worked Problem page. As the student works through each problem, feedback and just-in-time learning aids help the student develop proficiency with the concept.

Interactive Draw-Graph Exercises For each major figure, a graph-drawing exercise accompanies the step-by-step animation. The student builds and interprets the key graphs and develops understanding by working a multiple-choice question about the graph. Each graph-drawing exercise is auto-graded and feeds into MyEconLab's Adaptive Study Plan.



Key Terms Quizzes Key Terms Quiz links provide opportunities for students to check their knowledge of the definitions and uses of the key terms.

Other MyEconLab Features

MyEconLab also includes the following features:

Adaptive Learning MyEconLab's Study Plan is now powered by a sophisticated adaptive learning engine that tailors learning material to meet the unique needs of each student. MyEconLab's new **Adaptive Learning Study Plan** monitors students' performance on homework, quizzes, and tests and continuously makes recommendations based on that performance.

If a student is struggling with a concept such as supply and demand, or having trouble calculating a price elasticity of demand, the Study Plan provides customized remediation activities—a pathway based on personal proficiencies, the number of attempts, or the difficulty of the questions—to get the student back on track. Students will also receive recommendations for additional practice in the form of rich multimedia learning aids such as videos, an interactive eText, Help Me Solve This tutorials, and graphing tools.

The Study Plan can extrapolate a student's future trouble spots and provide learning material and practice to avoid pitfalls. In addition, students who are showing a high degree of success with the assessment

material are offered a chance to work on future topics based on the professor's course coverage preferences. This personalized and adaptive feedback and support ensures that your students are optimizing their current and future course work and mastering the concepts, rather than just memorizing and guessing answers.

You can learn more about adaptive learning at <http://www.myeconlab.com/product-info/adaptive>.

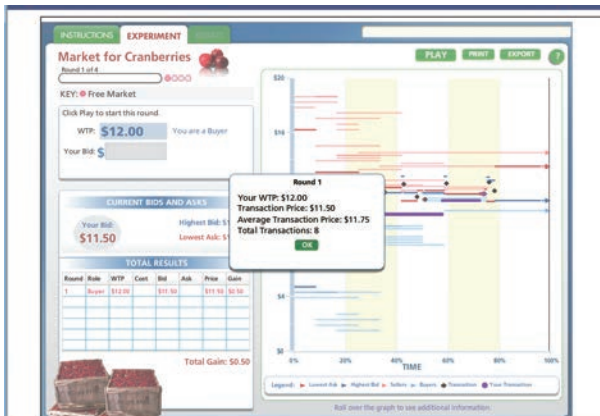
Economics in the News *Economics in the News* is a turnkey solution to bringing current news into the classroom. Updated weekly during the academic year, we upload two relevant articles (one micro, one macro) and provide questions that may be assigned for homework or for classroom discussion.

Current News Each week during the academic year, we upload multi-part microeconomic and macroeconomic exercises, with links to relevant articles, into the MyEconLab assignment manager. These enable instructors to bring current issues and events into the course with easy to assign and auto-graded exercises.

Office Hours Students and instructors can consult the authors using the "Office Hours" links in MyEconLab. The link for students is in Chapter Resources and for Instructors in Instructor Resources/Instructor Tools.

Experiments in MyEconLab Experiments are a fun and engaging way to promote active learning and mastery of important economic concepts. Pearson's Experiments program is flexible and easy for instructors to assign and students to use.

- Available experiments cover competitive market, price floors, price ceilings, taxes, price controls, and public goods.
- Single-player experiments, available to assign, allow your students to play against virtual players from anywhere at any time as long as they have an Internet connection.
- Multi-player experiments allow you to assign and manage a real-time experiment with your class.
- Experiments can be assigned in MyEconLab as homework integrated with pre-questions and post-questions.
- Experiments are auto-graded using algorithms that objectively evaluate a student's economic gain and performance during the experiment.



Digital Interactives A Digital Interactive is a simulation game that immerses the student in an activity that leads to the discovery of a fundamental economic idea or principle. Digital Interactives are designed for use in traditional, online, and hybrid courses, and many incorporate real-time data as well as data display and analysis tools. A Digital Interactive can be presented in class as a visually stimulating, engaging lecture tool, and can be assigned with assessment questions for grading analysis tools.

Learning Catalytics Learning Catalytics is a web-based system for managing the interactive classroom. It is a “bring your own device” platform that supports the peer-instruction teaching method and can also be used to provide the instructor with real-time feedback during class. Instructors can access 18 different question types among which are multiple choice, numerical, sketching, ranking, and highlighting. For more information, visit learningcatalytics.com.

Dynamic Study Modules Dynamic Study Modules, which focus on key topic areas and are available from within MyEconLab, are an additional way for students to obtain tailored help. These modules work by continuously assessing student performance and activity on discrete topics and provide personalized content in real time to reinforce concepts that target each student’s particular strengths and weaknesses.

Each Dynamic Study Module, accessed by computer, smartphone, or tablet, promotes fast learning and long-term retention. Because MyEconLab and Dynamic Study Modules help students stay on track and achieve a higher level of subject-matter mastery, more class time is available for interaction,

discussion, collaboration, and exploring applications to current news and events.

Instructors can register, create, and access all of their MyEconLab courses at www.myeconlab.com.

Acknowledgments

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We thank the several thousand students whom we have been privileged to teach. The instant response that comes from the look of puzzlement or enlightenment has taught us how to teach economics.

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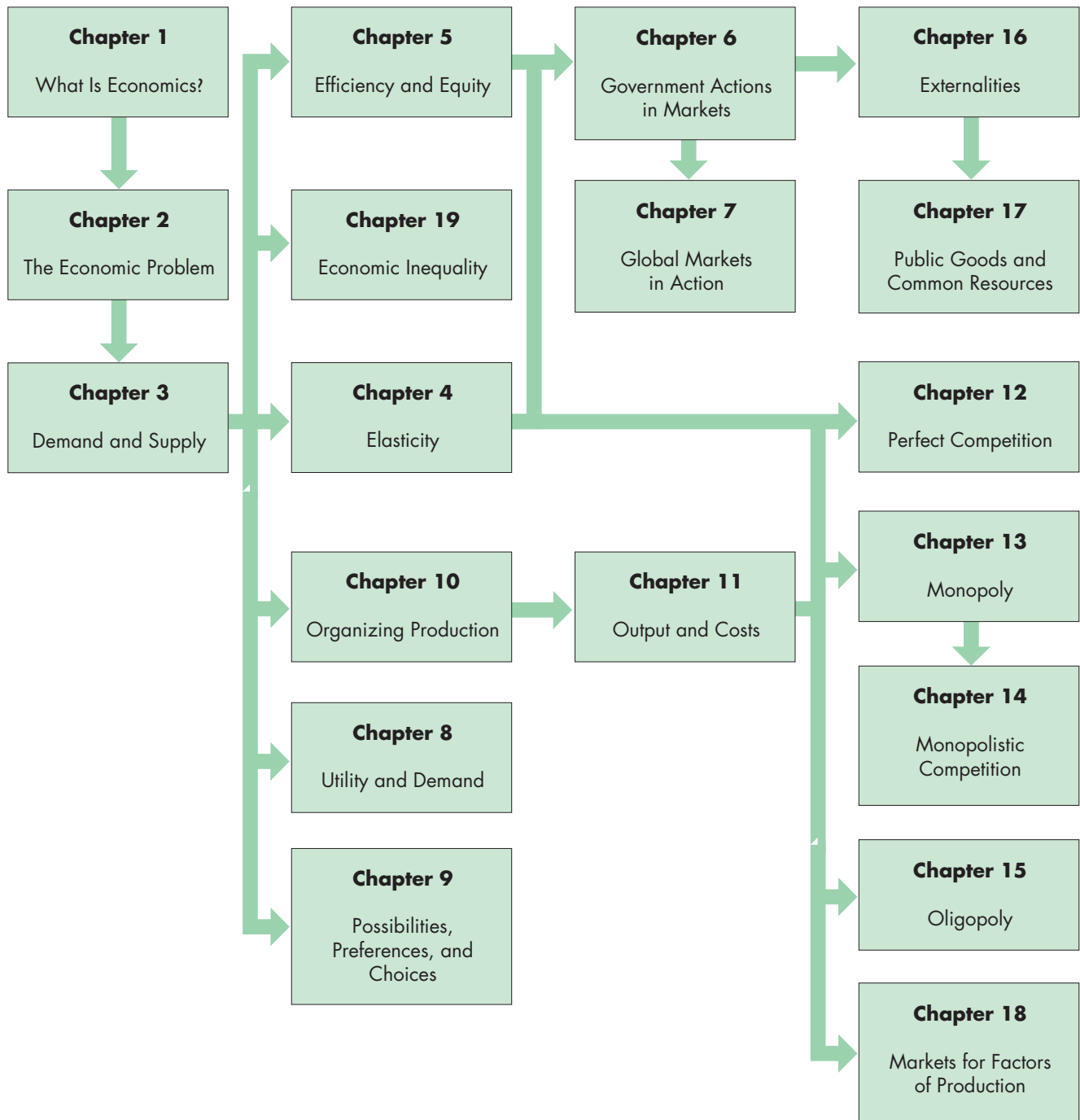
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ALTERNATIVE PATHWAYS THROUGH THE CHAPTERS

Flexibility



Start here ...

... then jump to
any of these ...

... and jump to any of these after
doing the prerequisites indicated

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PART ONE INTRODUCTION 1

CHAPTER 1 WHAT IS ECONOMICS? 1

Definition of Economics	2
Two Big Economic Questions	3
What, How, and For Whom?	3
Do Choices Made in the Pursuit of Self-Interest also Promote the Social Interest?	5
The Economic Way of Thinking	9
A Choice Is a Tradeoff	9
Making a Rational Choice	9
Benefit: What You Gain	9
Cost: What You <i>Must</i> Give Up	9
How Much? Choosing at the Margin	10
Choices Respond to Incentives	10
Economics as Social Science and Policy Tool	11
Economist as Social Scientist	11
Economist as Policy Adviser	11

AT ISSUE 8

ECONOMICS IN THE NEWS 6, 12

Summary (Key Points and Key Terms), Worked Problem, Study Plan Problems and Applications, and Additional Problems and Applications appear at the end of each chapter.

APPENDIX Graphs in Economics 15

Graphing Data	15
Scatter Diagrams	16
Graphs Used in Economic Models	18
Variables That Move in the Same Direction	18
Variables That Move in Opposite Directions	19
Variables That Have a Maximum or a Minimum	20
Variables That Are Unrelated	21
The Slope of a Relationship	22
The Slope of a Straight Line	22
The Slope of a Curved Line	23
Graphing Relationships Among More Than Two Variables	24
<i>Ceteris Paribus</i>	24
When Other Things Change	25

MATHEMATICAL NOTE

Equations of Straight Lines	26
-----------------------------	----

CHAPTER 2 ♦ THE ECONOMIC PROBLEM 31

Production Possibilities and Opportunity Cost 32

- Production Possibilities Frontier 32
- Production Efficiency 33
- Tradeoff Along the *PPF* 33
- Opportunity Cost 33

Using Resources Efficiently 35

- The *PPF* and Marginal Cost 35
- Preferences and Marginal Benefit 36
- Allocative Efficiency 37

Economic Growth 38

- The Cost of Economic Growth 38
- A Nation's Economic Growth 39

Gains from Trade 40

- Comparative Advantage and Absolute Advantage 40
- Achieving the Gains from Trade 42

Economic Coordination 44

- Firms 44
- Markets 44
- Property Rights 44
- Money 44
- Circular Flows Through Markets 44
- Coordinating Decisions 45

■ ECONOMICS IN ACTION 39

■ ECONOMICS IN THE NEWS 34, 46

PART ONE WRAP-UP ♦

Understanding the Scope of Economics

Your Economic Revolution 53

Talking with

Esther Duflo 54

PART TWO
HOW MARKETS WORK 55**CHAPTER 3 ♦ DEMAND AND SUPPLY** 55

Markets and Prices 56

Demand 57

- The Law of Demand 57
- Demand Curve and Demand Schedule 57
- A Change in Demand 58
- A Change in the Quantity Demanded Versus a Change in Demand 60

Supply 62

- The Law of Supply 62
- Supply Curve and Supply Schedule 62
- A Change in Supply 63
- A Change in the Quantity Supplied Versus a Change in Supply 64

Market Equilibrium 66

- Price as a Regulator 66
- Price Adjustments 67

Predicting Changes in Price and Quantity 68

- An Increase in Demand 68
- A Decrease in Demand 68
- An Increase in Supply 70
- A Decrease in Supply 70
- Changes in Both Demand and Supply 72

■ ECONOMICS IN THE NEWS 69, 71, 74

MATHEMATICAL NOTE

Demand, Supply, and Equilibrium 76

CHAPTER 4 ♦ ELASTICITY 83

- Price Elasticity of Demand 84
 - Calculating Price Elasticity of Demand 84
 - Inelastic and Elastic Demand 85
 - The Factors that Influence the Elasticity of Demand 86
 - Elasticity Along a Linear Demand Curve 87
 - Total Revenue and Elasticity 88
 - Your Expenditure and Your Elasticity 90
- More Elasticities of Demand 91
 - Income Elasticity of Demand 91
 - Cross Elasticity of Demand 92
- Elasticity of Supply 94
 - Calculating the Elasticity of Supply 94
 - The Factors That Influence the Elasticity of Supply 95
- ECONOMICS IN ACTION 89, 91, 92
- ECONOMICS IN THE NEWS 90, 93, 98

CHAPTER 5 ♦ EFFICIENCY AND EQUITY 105

- Resource Allocation Methods 106
 - Market Price 106
 - Command 106
 - Majority Rule 106
 - Contest 106
 - First-Come, First-Served 106
 - Lottery 107
 - Personal Characteristics 107
 - Force 107
- Benefit, Cost, and Surplus 108
 - Demand, Willingness to Pay, and Value 108
 - Individual Demand and Market Demand 108
 - Consumer Surplus 109
 - Supply and Marginal Cost 109
 - Supply, Cost, and Minimum Supply-Price 110
 - Individual Supply and Market Supply 110
 - Producer Surplus 111
- Is the Competitive Market Efficient? 112
 - Efficiency of Competitive Equilibrium 112
 - Market Failure 114
 - Sources of Market Failure 114
 - Alternatives to the Market 115
- Is the Competitive Market Fair? 116
 - It's Not Fair if the *Result* Isn't Fair 116
 - It's Not Fair if the *Rules* Aren't Fair 118
 - Case Study: A Generator Shortage in a Natural Disaster 118
- ECONOMICS IN ACTION 113
- AT ISSUE 119
- ECONOMICS IN THE NEWS 120

CHAPTER 6 ♦ **GOVERNMENT ACTIONS IN MARKETS** 127

- A Housing Market with a Rent Ceiling 128
 - A Housing Shortage 128
 - Increased Search Activity 128
 - A Black Market 128
 - Inefficiency of a Rent Ceiling 129
 - Are Rent Ceilings Fair? 130
- A Labour Market with a Minimum Wage 131
 - Minimum Wage Brings Unemployment 131
 - Is the Minimum Wage Fair? 131
 - Inefficiency of a Minimum Wage 132
- Taxes 133
 - Tax Incidence 133
 - A Tax on Sellers 133
 - A Tax on Buyers 134
 - Equivalence of Tax on Buyers and Sellers 134
 - Tax Incidence and Elasticity of Demand 135
 - Tax Incidence and Elasticity of Supply 136
 - Taxes and Efficiency 137
 - Taxes and Fairness 138
- Production Quotas and Subsidies 139
 - Production Quotas 139
 - Subsidies 140
- Markets for Illegal Goods 142
 - A Free Market for a Drug 142
 - A Market for an Illegal Drug 142
 - Legalizing and Taxing Drugs 143
- ECONOMICS IN ACTION 130, 138, 141
- AT ISSUE 132
- ECONOMICS IN THE NEWS 144

CHAPTER 7 ♦ **GLOBAL MARKETS IN ACTION** 151

- How Global Markets Work 152
 - International Trade Today 152
 - What Drives International Trade? 152
 - Why Canada Imports T-Shirts 153
 - Why Canada Exports Regional Jets 154
- Winners, Losers, and the Net Gain from Trade 155
 - Gains and Losses from Imports 155
 - Gains and Losses from Exports 156
 - Gains for All 156
- International Trade Restrictions 157
 - Tariffs 157
 - Import Quotas 160
 - Other Import Barriers 163
 - Export Subsidies 163
- The Case Against Protection 164
 - Helps an Infant Industry Grow 164
 - Counteracts Dumping 164
 - Saves Domestic Jobs 164
 - Allows Us to Compete with Cheap Foreign Labour 164
 - Penalizes Lax Environmental Standards 165
 - Prevents Rich Countries from Exploiting Developing Countries 165
 - Reduces Offshore Outsourcing that Sends Good Canadian Jobs to Other Countries 165
 - Avoiding Trade Wars 166
 - Why Is International Trade Restricted? 166
 - Compensating Losers 167
- ECONOMICS IN ACTION 152, 158, 163
- AT ISSUE 166
- ECONOMICS IN THE NEWS 162, 168

PART TWO WRAP-UP ♦

- Understanding How Markets Work
- The Amazing Market 175
- Talking with
- Susan Athey 176

**PART THREE**
HOUSEHOLDS' CHOICES 177**CHAPTER 8 ♦ UTILITY AND DEMAND 177**

- Consumption Choices 178
 - Consumption Possibilities 178
 - Preferences 179
- Utility-Maximizing Choice 181
 - A Spreadsheet Solution 181
 - Choosing at the Margin 182
 - The Power of Marginal Analysis 184
 - Revealing Preferences 184
- Predictions of Marginal Utility Theory 185
 - A Fall in the Price of a Movie 185
 - A Rise in the Price of Pop 187
 - A Rise in Income 188
 - The Paradox of Value 189
 - Temperature: An Analogy 190
- New Ways of Explaining Consumer Choices 192
 - Behavioural Economics 192
 - Neuroeconomics 193
 - Controversy 193

■ **ECONOMICS IN ACTION 190**■ **ECONOMICS IN THE NEWS 194****CHAPTER 9 ♦ POSSIBILITIES, PREFERENCES, AND CHOICES 201**

- Consumption Possibilities 202
 - Budget Equation 203
- Preferences and Indifference Curves 205
 - Marginal Rate of Substitution 206
 - Degree of Substitutability 207
- Predicting Consumer Choices 208
 - Best Affordable Choice 208
 - A Change in Price 209
 - A Change in Income 211
 - Substitution Effect and Income Effect 212

■ **ECONOMICS IN ACTION 210**■ **ECONOMICS IN THE NEWS 214****PART THREE WRAP-UP ♦****Understanding Households' Choices**

Making the Most of Life 221

Talking with

Steven D. Levitt 222