



# PARKIN

# Microeconomics

ELEVENTH EDITION

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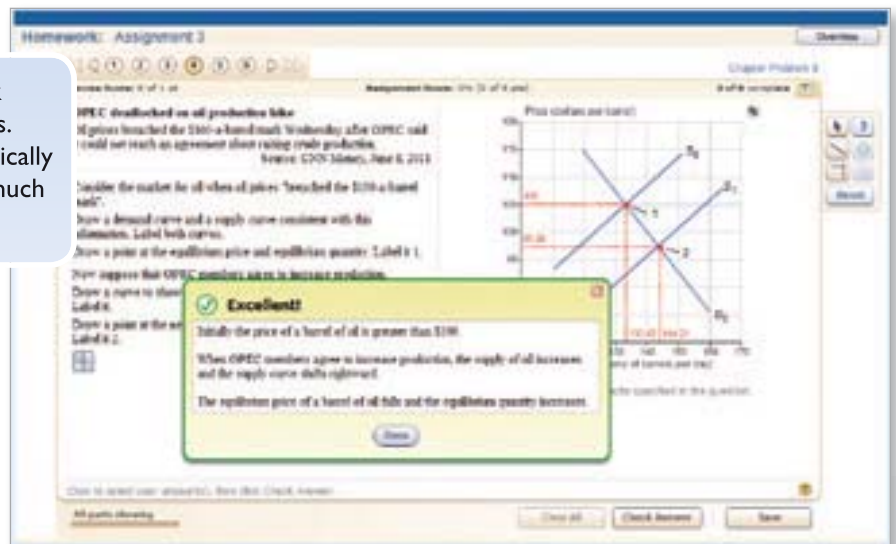
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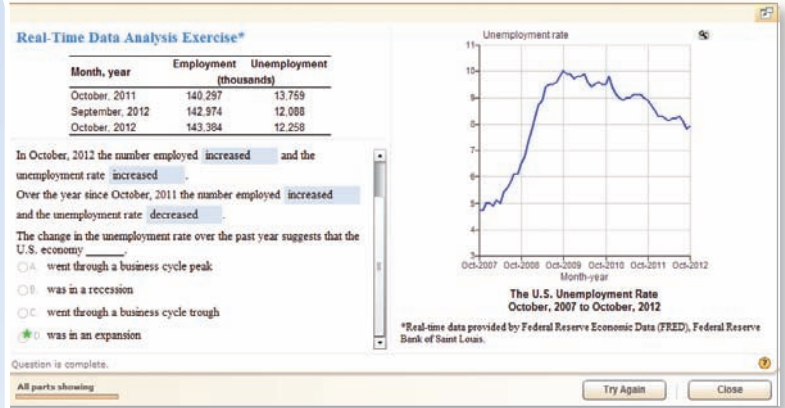
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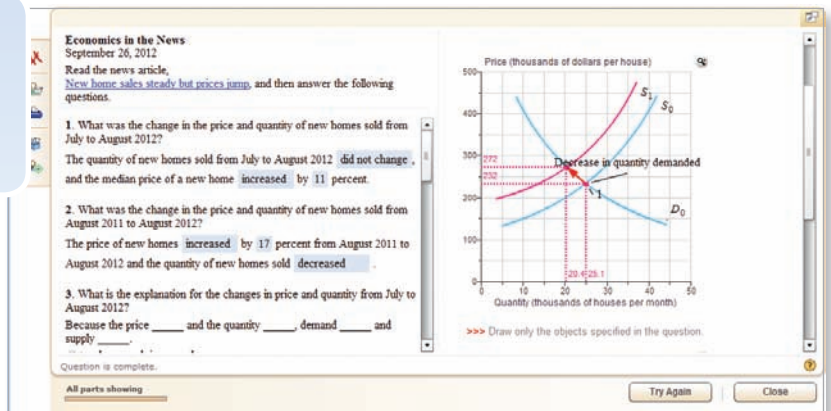
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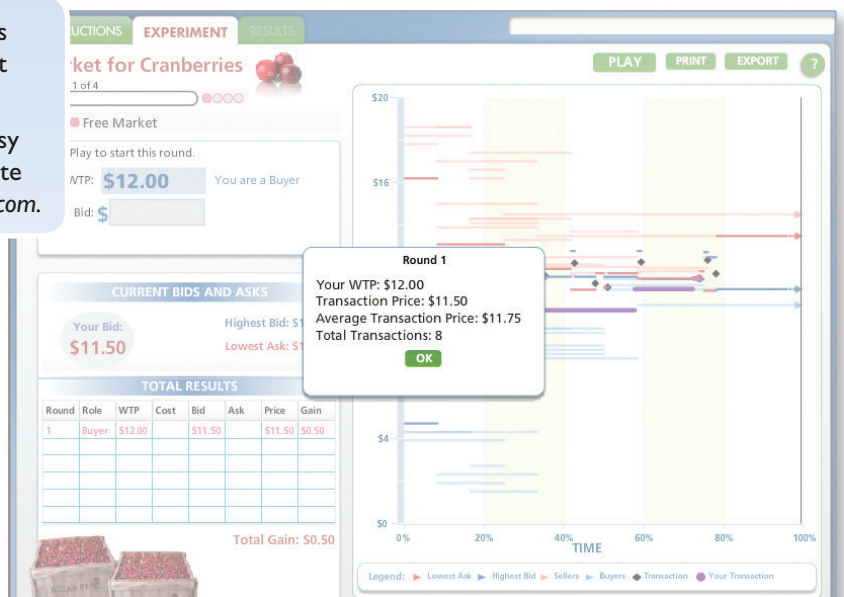
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# MICROECONOMICS

ELEVENTH EDITION

MICHAEL PARKIN

University of Western Ontario

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TO ROBIN

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**Michael Parkin** 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 toward European monetary union. Professor Parkin is an experienced and dedicated teacher of introductory economics.



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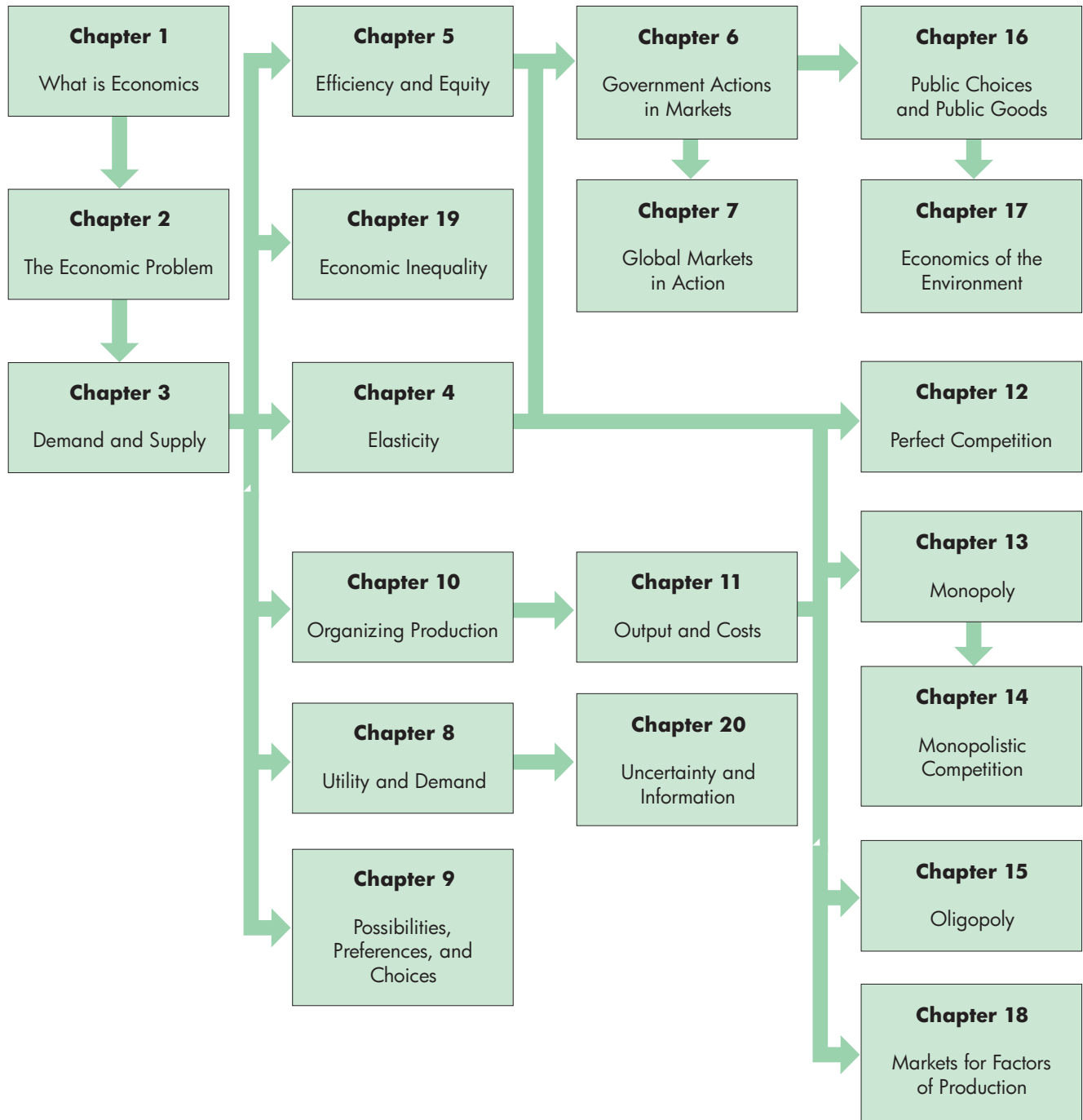
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# ALTERNATIVE PATHWAYS THROUGH MICRO CHAPTERS

## Micro Flexibility



Start here ...

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

... and jump to any of these after  
doing the pre-requisites indicated

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**The future is always uncertain.** But at some times, and now is one such time, the range of possible near-future events is enormous. The major source of this great uncertainty is economic policy. There is uncertainty about the way in which international trade policy will evolve as protectionism is returning to the political agenda. There is uncertainty about exchange rate policy as competitive devaluation rears its head. There is extraordinary uncertainty about monetary policy with the Fed having tripled the quantity of bank reserves and continuing to create more money in an attempt to stimulate a flagging economy but providing no guidance about its eventual exit strategy from stimulus. And there is uncertainty about fiscal policy as a one trillion dollar deficit approaches a fiscal cliff and interacts with an aging population and rising health-care costs to create a national debt time bomb.

In the five years since the subprime mortgage crisis of August 2007 moved economics from the business report to the front page, justified fear has gripped producers, consumers, financial institutions, and governments.

Even the *idea* that the market is an efficient mechanism for allocating scarce resources came into question. Many thoughtful people worried about rising income inequality and some political leaders called for the end of capitalism and the dawn of a new economic order in which tighter regulation reigned 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 through its 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 students begin to think about issues the way real economists do and learn how to explore difficult policy problems and make more informed decisions in their own economic lives.

## The Eleventh Edition Revision

Thoroughly updated, stripped of technical detail where possible, extensively illustrated with well-chosen photographs, enlivened with new applications features that focus on issues at play in today's world, responsive to the suggestions of reviewers and users, and seamlessly integrated with MyEconLab: These are the hallmarks of this eleventh edition of *Microeconomics*.

This comprehensive revision builds on the solid foundation of the previous edition and retains its thorough and careful presentation of the principles of economics, its emphasis on real-world examples and applications, its development of critical thinking skills, its diagrams renowned for pedagogy and clarity, and its 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.

**Current issues organize each chapter.** News stories about today's major economic events and debates tie each chapter together, from new abbreviated chapter-opening vignettes to *Reading Between the Lines* and end-of-chapter problems and applications and online practice.

**A new feature, Economics in the News,** is aimed at better motivating students and showing them how to use the economic toolkit to understand the events and issues they are confronted with in the media. It also helps them to work the related *Economics in the News* end-of-chapter problems and applications.

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

Among the many issues covered in one or more of the two new features described above are:

- Capitalism and its critics in Chapter 1
- Energy independence in Chapter 2
- The relentlessly rising cost of college in Chapter 3
- Price gouging in Chapter 5
- Offshore outsourcing in Chapter 7
- Obamacare in Chapter 16
- Taxing carbon to counter climate change in Chapter 17
- The monopoly power of the NCAA in Chapter 18

## Highpoints of the Revision

Most topics are well explained in the previous edition and are hard to improve on. So the highpoints of the current revision are the new *Economics in the News* and *At Issue* features. Nonetheless, three topics have been substantially revised. They are:

- Price discrimination
- Carbon emissions and climate change externalities
- Education and health care

**Price Discrimination** The key idea we want our students to understand about price discrimination is that it converts consumer surplus into producer surplus and economic profit. To strengthen this insight, I now begin with a brief explanation of the relationship between producer surplus and economic profit. I then use a carefully constructed model of two separated markets to show how discrimination between them can increase producer surplus. I 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. I 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

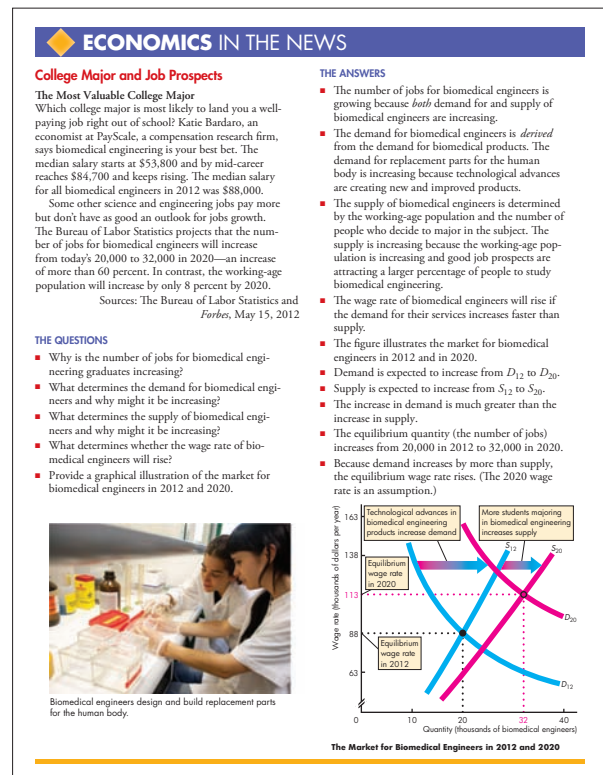
**Externalities** What Nicholas Stern has called the greatest market failure and what some climate-change skeptics see as a problem that markets will eventually solve gets a thoroughly new treatment. I begin by contrasting the success story of local air quality in the major U.S. cities with the unrelenting rise in atmospheric carbon concentration. I then explain the three methods of coping with environmental externalities: property rights, mandating the use of clean technologies, and taxing or pricing emissions. I explore the ability of each method to achieve an efficient outcome. I also explore the special challenge that arises from the global rather than national scope of carbon emission.

**Education and Health Care** These two large items of public expenditure are not *public goods* but are examples of goods that have large *positive externalities*. I have expanded and revised my explanation of the problem of delivering an efficient quantity of these goods with an emphasis on the potential role for vouchers in both markets. I also have a new discussion of charter schools and the role they can play. U.S. health-care service and expenditures are placed in a global perspective.

## Economics in the News

Complementing *Economics in the News* questions, which have appeared daily in MyEconLab and in end-of-chapter problems in previous editions, a series of new *Economics in the News* boxes help students to answer news-based questions (see an example below). The topics covered by these boxes are:

- The invisible hand and entrepreneurship at work
- The fragile global economy in 2013
- Rising global food costs
- Energy independence cost and inefficiency
- The market for college education
- The market for gasoline
- Elasticities of demand for peanut butter
- The changing market for coat hangers
- The principal–agent problem at JPMorgan Chase
- Cost curves at the checkout line
- Record stores exit
- The falling cost of sequencing DNA
- Microsoft monopoly
- Boeing versus Airbus
- The choice of college major and job prospects



### At Issue

Seven new *At Issue* boxes engage the student in debate and controversy. An *At Issue* box (see below) introduces an issue and then presents two opposing views. It leaves the matter unsettled so that the student and instructor can continue the argument in class and reach their own conclusions.

The goal of *At Issue* is to motivate the student to think about the opposing arguments and to take a stand on the issues.

The seven issues covered by this feature are:

- The protest against capitalism and the Occupy Wall Street movement
- Do we need a law against price gouging?
- Does the minimum wage cause unemployment?
- Is offshore outsourcing good or bad for America?
- Is Obamacare the solution to U.S. health-care problems?
- Should we be doing more to limit carbon emissions?
- Monopoly power at NCAA: Is it good or bad?

**AT ISSUE**

**Should We Be Doing More to Reduce Carbon Emissions?**

Economists agree that tackling the global warming problem requires changes in the incentives that people face. The cost of carbon-emitting activities must rise and the cost of clean-energy technologies must fall. Disagreement centers on *how* to change incentives. Should more countries set targets for cutting carbon emissions at a faster rate and introduce a carbon tax or emissions charges or cap-and-trade to cut emissions? Should clean energy research and development be subsidized?

**Yes: The Stern Review**

- Confronting emitters with a tax or price on carbon imposes low present costs for high future benefits.
- The cost of reducing greenhouse gas emissions to safe levels can be kept to 1 percent of global income each year.
- The future benefits are incomes at least 5 percent and possibly 20 percent higher than they will be with inaction every year forever.
- Climate change is a global problem that requires an international coordinated response.
- Unlike most taxes, which bring deadweight loss, a carbon tax eliminates (or reduces) deadweight loss.
- Strong, deliberate policy action is required to change the incentives that emitters face.
- Policy actions should include:
  1. Emissions limits and emissions trading
  2. Increased subsidies for energy research and development, including the development of low-cost clean technology for generating electricity
  3. Reduced deforestation and research into new drought and flood-resistant crop varieties

**No: The Copenhagen Consensus**

- Confronting emitters with a tax or price on carbon imposes high present costs and low future benefits.
- Unless the entire world signs onto an emissions reduction program, free riders will increase their emissions and carbon leakage will occur.
- A global emissions reduction program and carbon tax would lower living standards in the rich countries and slow the growth rate of living standards in developing countries.
- Technology is already advancing and the cost of cleaner energy is falling.
- Fracking technology has vastly expanded the natural gas deposits that can be profitably exploited and replacing coal with gas halves the carbon emissions from electricity generation.
- Free-market price signals will allocate resources to the development of new technologies that stop and eventually reverse the upward trend in greenhouse gases.

**Economist Nicholas Stern, principal author of *The Stern Review on the Economics of Climate Change*.** Greenhouse gas emission is "the greatest market failure the world has ever seen."  
To avoid the risk of catastrophic climate change, the upward CO<sub>2</sub> trend must be stopped.



**Bjorn Lomborg, President of the Copenhagen Consensus and author of *The Skeptical Environmentalist*.** "For little environmental benefit, we could end up sacrificing growth, jobs, and opportunities for the big majority, especially in the developing world."



### Features to Enhance Teaching and Learning

The new features that I have just described are additions to an already powerful teaching and learning package. Here, I briefly review the features retained from the previous edition.

#### Reading Between the Lines

This Parkin hallmark helps students think like economists by connecting chapter tools and concepts to the world around them. In *Reading Between the Lines*, which appears at the end of each chapter, students apply the tools they have just learned by analyzing an article from a newspaper or news Web site. Each article sheds additional light on the questions first raised in the Chapter Opener. Questions about the article also appear with the end-of-chapter problems and applications.

READING BETWEEN THE LINES

## Demand and Supply: The Price of Peanut Butter

**Peanut Butter Prices Expected to Rise After Dry Summer**  
*The Augusta Chronicle*  
October 12, 2011

Another hot, dry summer in key producing states and competition from more profitable crops including cotton have significantly shrunk the U.S. peanut crop this year. U.S. farmers are expected to produce roughly 1.8 million tons of peanuts this year, down nearly 13 percent from last year, according to a survey released Wednesday by the Department of Agriculture. Assuming that estimate holds, it would be the smallest harvest since 2006.

Peanut butter producers already have plans to raise prices for peanut butter significantly in the next few weeks. . . . The J.M. Smucker Co., which makes Jif peanut butter, plans to raise its wholesale prices 30 percent in November. Kraft Foods Co., which launched its Planters peanut butter in June, is raising prices 40 percent on Oct. 31.

A spokesperson for ConAgra Foods Inc., which makes Peter Pan peanut butter, was not immediately available to comment but multiple media outlets report that the company plans to raise its prices as well.

Unilever, which makes Skippy brand peanut butter, said the company is watching the commodities market very closely.

Georgia, the largest peanut-producing state in the country, saw record-breaking heat and a lack of rainfall that prevented some peanut seeds from even germinating in the field. Plants that did grow were baked in the hot summer sun.

**ESSENCE OF THE STORY**

- A hot and dry 2011 summer resulted in a poor peanut harvest.
- Because cotton was more profitable, some farmers that did grow were baked in the hot summer sun.

According to farmers who grow common kitchen butter—cotton

**ECONOMIC ANALYSIS**

- This news article reports events in two markets: the market for peanuts and the market for peanut butter.
- In the market for peanuts, a hot, dry summer decreased supply.
- Also, a rise in the price of cotton, a substitute in production for peanuts, led farmers to plant more cotton acres and fewer peanut acres, so the supply of peanuts decreased for a second reason.
- The decrease in supply led to a large increase in price, a decrease in the quantity demanded, and a decrease in the equilibrium quantity of peanuts.
- Figure 1 illustrates the market for peanuts in 2010 and 2011.
- The demand curve for peanuts is  $D$ . In 2010, the supply curve was  $S_0$ . The equilibrium price was \$450 per ton and 2 million tons of peanuts were produced.

Figure 1 The Market for Peanuts

#### Economics in the News

34. After you have studied *Reading Between the Lines* on pp. 74–75, answer the following questions.
- a. What happened to the price of peanut butter in 2011?
  - b. What substitutions do you expect might have been made to decrease the quantity of peanut butter demanded?

## Diagrams That Show the Action

Through the past ten editions, this book has set new standards of clarity in its diagrams; the eleventh edition continues to uphold this tradition. My goal has always been to show “where the economic action is.” The diagrams in this book continue to generate an enormously positive response, which confirms my view that graphical analysis is the most powerful tool available for teaching and learning economics.

Because many students find graphs hard to work with, I 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
- Color-blended arrows to suggest movement
- Graphs paired with data tables
- Diagrams labeled with boxed notes
- Extended captions that make each diagram and its caption a self-contained object for study and review.

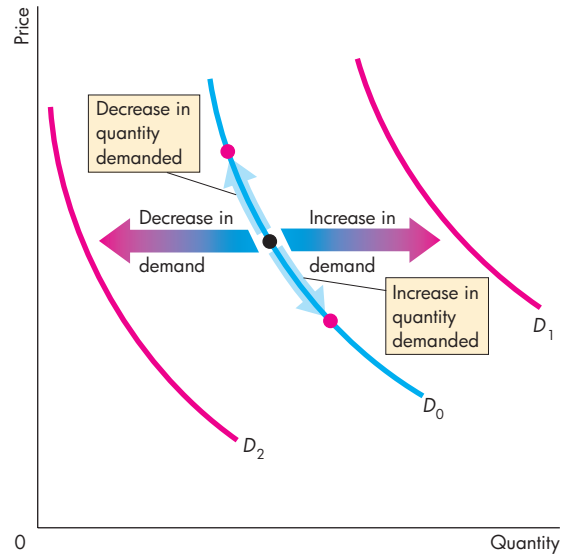
## Economics in Action Boxes

This feature uses boxes within the chapter to address current events and economic occurrences that highlight and amplify the topics covered in the chapter. Instead of simply reporting the current events, the material in the boxes applies the event to an economics lesson, enabling students to see how economics plays a part in the world around them as they read through the chapter.

Some of the many 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, opposing trends in air pollution and carbon concentration, information-age monopolies, is the American dream still alive, and how is income redistributed. A complete list can be found on the inside back cover.

## 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 *Reading Between the Lines* feature that ends each chapter.



### Economics in Action

#### Opposing Trends: Success and Failure

The trends in local U.S. air quality and global greenhouse gas concentrations are starkly opposing. The concentrations of air pollutants in U.S. cities is decreasing, as it has done so for the past 30 years. In contrast, the concentration of greenhouse gases (mainly carbon dioxide) in the global atmosphere is increasing and posing an ever more urgent problem.

#### Air Pollution Trends

Figure 1 shows the trends in the concentrations of the six main pollutants of the air in the United States between 1980 and 2010. The concentrations of all these pollutants decreased.

The Clean Air Act has brought regulations that cut emissions of carbon monoxide, volatile organic compounds, oxides of nitrogen, sulfur dioxide, and particulate matter to around 64 percent of their 1980 levels. And economic actions that you will learn about in this chapter have almost eliminated lead from highway vehicles and industrial processes.

These reductions in air pollution are even more impressive seen against the trends in economic activity. Between 1980 and 2010, total production in the United States increased by 124 percent, vehicle miles traveled increased by 95 percent, and the population increased by 36 percent.

#### Global CO<sub>2</sub> and Temperature Trends

Figure 2 shows the global trends in carbon dioxide (CO<sub>2</sub>) concentration and temperature.

Both trends are starkly upward. CO<sub>2</sub> concentration has increased by almost 40 percent since 1850, and global temperature has been rising for more than 100 years.

Scientists agree that the scale on which we burn fossil fuels is the major source of the rising CO<sub>2</sub> trend. There is more uncertainty about the effect of the increase in CO<sub>2</sub> on global temperature, but the consensus is that the effect is significant.

Stopping the rising CO<sub>2</sub> trend requires joint action by the governments of every nation. But a binding agreement among nations to reduce greenhouse gas emissions, the *Kyoto Protocol*, excluded the major developing countries and the United States refused to ratify it. You will see in this chapter why global warming is a much harder problem to solve than reducing air pollution in the United States.

**Figure 1 U.S. Air Pollution Trends**  
Source of data: United States Environmental Protection Agency.

Los Angeles still has a smoggy dawn on some days.

**Figure 2 Global Warming Trends**  
Sources of data: Temperature: Met Office Hadley Centre (combined land and ocean); CO<sub>2</sub>: Scripps Institution of Oceanography, Mauna Loa Observatory, Hawaii, data since 1950 and ice-core estimates before 1950.

## Key Terms

Highlighted terms simplify the student's task of learning the vocabulary of economics. Each highlighted term appears in an end-of-chapter list with its page number, in an end-of-book glossary with its page number, boldfaced in the index and in MyEconLab in the interactive glossary and the Flash Cards.

## 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 to help students further test their understanding.

### REVIEW QUIZ

- 1 What is the distinction between a money price and a relative price?
- 2 Explain why a relative price is an opportunity cost.
- 3 Think of examples of goods whose relative price has risen or fallen by a large amount.

You can work these questions in Study Plan 3.1 and get instant feedback.

**MyEconLab**

## End-of-Chapter Study Material

Each chapter closes with a concise summary organized by major topics, a list of key terms with page references, 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. All past and present interviews I 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: 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. I have organized this book to enable you to do so. The flexibility chart on p. xi illustrates the book's flexibility. By following the arrows through the chart 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* gives you the choice.

### Instructor's Supplemental Resources

The supplements for instructors are:

- Instructor's Manual
- Solutions Manual
- Test Item Files
- PowerPoint Resources

**Instructor's Manual** The Instructor's Manual for *Microeconomics* integrates the teaching and learning resources and serve as a guide to all the supplements. Written by Laura A. Wolff of Southern Illinois University Edwardsville, the Instructor's Manual is available in hard copy and electronically on the Instructor's Resource Disk.

Each chapter contains an overview, a list of what's new in the eleventh edition, and ready-to-use lecture notes, which enable a new user of Parkin to walk into a classroom and deliver a polished lecture.

**Solutions Manual** The comprehensive solutions manual for *Microeconomics* provides instructors with solutions to the Review Quizzes and the end-of-chapter Problems and Applications as well as additional problems and the solutions to these problems. Written by Mark Rush of the University of Florida and reviewed for accuracy by Jeannie Gillmore of the University of Western Ontario, the Solutions Manual is available in hard copy and electronically on the Instructor's Resource Disk, or downloaded from MyEconLab or the Instructor Resource Center.

**Test Item Files** Three separate Test Item Files with nearly 6,500 questions, provide multiple-choice, true/false, numerical, fill-in-the-blank, short-answer, and essay questions. Mark Rush reviewed and edited all the questions to ensure their clarity and consistency.

New questions were written by Rebecca Stein of the University of Pennsylvania, Svitlana Maksymenko of the University of Pittsburgh, and James K. Self of the University of Indiana, Bloomington.

Questions follow the style and format of the end-of-chapter text problems. End-of-part tests contain integrative questions that cover all the chapters in the part. New to the eleventh edition are news based application questions for each chapter of the text.

Fully networkable and available for Windows® and Macintosh®, TestGen's graphical interface enables instructors to view the Test Item Files, edit and add questions; transfer questions to tests; and print different forms of tests. Tests can be formatted as in any word-processing document with varying fonts, styles, margins, headers, and footers. Search and sort features let the instructor quickly locate questions and arrange them in a preferred order. QuizMaster, working with your school's computer network, automatically grades exams, stores the results, and allows the instructor to view or print a variety of reports.

**PowerPoint Resources** A set of full-color Microsoft® PowerPoint Presentations for each chapter.

Each chapter contains:

- Lecture notes with all the textbook figures animated, tables from the textbook, and speaking notes from the Instructor's Manuals
- Large-scale versions of all the figures and tables in the textbook, animated for instructors to incorporate into their own slide shows
- Clicker-ready multiple-choice quizzes that test important concepts

The presentations can be used electronically in the classroom or can be printed to create hard copy transparency masters. This item is available for Macintosh and Windows.

In addition, a separate set of PowerPoint lecture notes is available for students in MyEconLab.

## Getting Your Instructor's Resources

**Instructor's Resource Disk** Compatible with Windows and Macintosh, the Instructor's Resource Disk contains electronic files of every instructor supplement for the eleventh edition. Files included are: Microsoft® Word and Adobe® PDF files of the Instructor's Manual, Solutions Manual, Test Item Files; the Computerized TestGen® Test Item Files; and the PowerPoint resources. Add this useful resource to your exam copy bookbag, or locate your local Pearson Education sales representative at [www.pearsonhighered.edu/educator](http://www.pearsonhighered.edu/educator) to request a copy.

Instructors can download supplements from a secure, instructor-only source via the Pearson Higher Education Instructor Resource Center Web page ([www.pearsonhighered.com/irc](http://www.pearsonhighered.com/irc)).

**BlackBoard and WebCT** BlackBoard and WebCT ready conversions of the TestGen Test Item Files are available for download from [www.pearsonhighered.com/irc](http://www.pearsonhighered.com/irc).

## Study Guide

The eleventh edition Study Guide by Mark Rush is coordinated with the text, MyEconLab, and the Test Item Files. Each chapter contains key concepts, helpful hints, true/false/uncertain questions, multiple-choice questions, and short-answer questions. Each part allows students to test their cumulative understanding with questions that go across chapters and to work a sample midterm examination. The student is encouraged to explain some common misconceptions as if he or she were the teacher.



## MYECONLAB MyEconLab

MyEconLab works hand-in-hand with *Microeconomics*. Robin Bade and I, assisted by Jeannie Gillmore, Laurel Davies, and Sharmistha Nag, have authored and overseen all of the MyEconLab content for *Microeconomics*. Our team has worked hard to ensure that the Parkin MyEconLab is tightly integrated with the book's content and vision.

With comprehensive homework, quiz, test, and tutorial options, instructors can manage all assessment needs in one program.

- All of the Review Quiz questions and end-of-chapter Problems and Applications are assignable and automatically graded in MyEconLab.
- All the Review Quiz questions and end-of-chapter Study Plan Problems and Applications are available for students to work in Study Plan.
- All 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.
- Test Item File questions are available for assignment as MyEconLab quizzes, tests, or homework.
- The Custom Exercise Builder enables instructors to create their own problems for assignment as test or homework questions.
- The powerful Gradebook records each student's performance and time spent on tests, the study plan, and homework and generates reports by student or by chapter.

**Enhanced Pearson eText** The enhanced Pearson eText, the entire textbook with animated figures that include audio narration is available online in MyEconLab textbook resources. For MyEconLab users, the eText is available offline via an iPad/Android app. Instructors and students can highlight the text, bookmark, search the glossary, and take notes.

**Economics in the News** *Economics in the News* is a turn-key solution to bringing daily news into the classroom. Updated daily during the school year, I upload a microeconomic article and provide links for further information and questions that may be assigned for homework or for classroom discussion.

**Auto-Graded Economics in the News** New to the eleventh edition are auto-graded *Economics in the News* exercises updated weekly throughout the school year. Each week I upload a multi-part microeconomic exercise with links to the relevant article.

**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 and students to use.

- Single-player experiments allow your students to play against virtual players from anywhere at any time with an Internet connection.
- Multiplayer experiments allow you to assign and manage a real-time experiment with your class.

Pre- and post-questions for each experiment are available for assignment in MyEconLab.

For a complete list of available experiments, visit [www.myeconlab.com](http://www.myeconlab.com).

**AACSB and Learning Outcomes** All end-of-chapter and Test Item File questions are tagged in two ways: to AACSB standards and to discipline-specific Learning Outcomes. These two separate tagging systems allow instructors to build assessments around desired departmental and course outcomes and track results in MyEconLab's gradebook.

A more detailed walk-through of the student benefits and features of MyEconLab can be found on the inside front cover. Visit [www.myeconlab.com](http://www.myeconlab.com) for more information and an online demonstration of instructor and student features.

## Acknowledgments

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

It is a special joy to thank the many outstanding editors, media specialists, and others at Pearson who contributed to the concerted publishing effort that brought this edition to completion. Denise Clinton, Publisher of MyEconLab has played a major role in the evolution of this text since its third edition, and her insights and ideas can still be found in this new edition. Donna Battista, Editor-in-Chief for Economics and Finance, is hugely inspiring and has provided overall direction to the project. As ever, Adrienne D'Ambrosio, Executive Acquisitions Editor for Economics and my sponsoring editor, played a major role in shaping this revision and the many outstanding supplements that accompany it. Adrienne brings intelligence and insight to her work and is the unchallengeable pre-eminent economics editor. Sarah Dumouchelle, Editorial Project Manager, provided a steady hand throughout the revision process, managing our immense supplements program, keeping the supplements authors' contributions on track, and working with rights and permissions advisors. Nancy Freihofer, Senior Production Project Manager, oversaw the production and design process and coordinated the photo research program. Susan Schoenberg, Director of Media, directed the development of MyEconLab; Noel Lotz, Content Lead for MyEconLab, managed a complex and thorough reviewing process for the content of MyEconLab; and Melissa Honig, Senior Media Producer ensured that all our

media assets were correctly assembled. Lori Deshazo, Executive Marketing Manager, provided inspired marketing strategy and direction. Catherine Baum provided a careful, consistent, and intelligent copy edit and accuracy check. Jonathan Boylan designed the cover and package and yet again surpassed the challenge of ensuring that we meet the highest design standards. Joe Vetere provided endless technical help with the text and art files. And Heather Johnson with the other members of an outstanding editorial and production team at Integra-Chicago kept the project on track on an impossibly tight schedule.

I thank all of these wonderful people. It has been inspiring to work with them and to share in creating what I believe is a truly outstanding educational tool.

I thank our talented eleventh edition supplements authors and contributors—Laurel Davies, Jeannie Gillmore, Svitlana Maksymenko, Sharmistha Nag, Jim Self, Rebecca Stein, and Laurie Wolff.

I especially thank Mark Rush, who yet again played a crucial role in creating another edition of this text and package. Mark has been a constant source of good advice and good humor.

I thank the many exceptional reviewers who have shared their insights through the various editions of this book. Their contribution has been invaluable.

I thank the people who work directly with me. Jeannie Gillmore provided outstanding research assistance on many topics, including the *Reading Between the Lines* news articles. Richard Parkin created the electronic art files and offered many ideas that improved the figures in this book. Laurel Davies managed an ever-growing and ever more complex MyEconLab database. And Sharmistha Nag has helped me to create *Economics in the News* questions for MyEconLab.

As with the previous editions, this one owes an enormous debt to Robin Bade. I dedicate this book to her and again thank her for her work. I could not have written this book without the tireless and unselfish help she has given me. My thanks to her are unbounded.

Classroom experience will test the value of this book. I would appreciate hearing from instructors and students about how I can continue to improve it in future editions.

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## PART ONE INTRODUCTION

# 1

## WHAT IS ECONOMICS?

After studying this chapter, you will be able to:

- ◆ Define economics and distinguish between microeconomics and macroeconomics
- ◆ Explain the two big questions of economics
- ◆ Explain the key ideas that define the economic way of thinking
- ◆ Explain how economists go about their work as social scientists and policy advisers

**Is economics about money: How people make it and spend it?** Is it about business, government, and jobs? Is it about why some people and some nations are rich and others poor? Economics is about all these things. But its core is the study of *choices* and their *consequences*.

Your life will be shaped by the choices that you make and the challenges that you face. To face those challenges and seize the opportunities they present, you must understand the powerful forces at play. The economics that you're about to learn will become your most reliable guide. This chapter gets you started by describing the questions that economists try to answer and looking at how economists think as they search for the answers.