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TO ROBIN
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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New To This Edition

All data figures, tables, and explanations thoroughly updated to the latest available; five main content changes; 20 new Economics in the News items based on recent events and issues; almost 70 new news-based problems and applications; and all seamlessly integrated with MyLab Economics and Pearson eText: These are the hallmarks of this thirteenth edition of *Economics*.

Main Content Changes

Chapter 1 now contains an entirely new section, “Economists in the Economy”, which describes the types of jobs available to economics majors, their earnings compared with majors in other related areas, and the critical thinking, analytical, math, writing, and oral communication skills needed for a successful career in economics.

Chapter 2 has a new section prompted by the ongoing concern about the rust-belt economy, its causes and cures, which describes and illustrates the changing patterns of production as an economy expands, and explains how technical change and economic growth first shrinks the share of agriculture as manufacturing expands and later shrinks the share of manufacturing as services expand.

Chapter 2 also has an expanded explanation and graphical derivation of the outward-bowed PPF.

A revised ‘At Issue’ in Chapter 14 ‘Support for and Opposition to Keeping Interest Rates Low’, contrasts the views of two new Fed presidents, Loretta Mester of the Cleveland Fed, and Esther George of the Kansas City Fed, which includes material on Dodd–Frank, the Volcker Rule, and other macroprudential regulation.

Economics in the News

The new Economics in the News features are listed on the back inside cover. They are all chosen to address current issues likely to interest and motivate the student. An example is the one in Chapter 2 on the Rust Belt.
News-Based Problems and Applications
Just a sample of the topics covered in the 140 new news-based problems and applications include:
Shrinking brick-and-mortar retail and expanding online shopping; Amazon’s impact on the jobs market; robots improve efficiency; cash is still king for Americans; dismantling NAFTA; paying with smartphone; and the effects of Irma and Harvey on the federal budget.

Solving Teaching and Learning Challenges
To change the way students see the world: this is my goal in teaching economics, in writing this book, and in playing a major role in creating content for MyLab Economics.

Three facts about students are my guiding principles. First, they want to learn, but they are overwhelmed by the volume of claims on their time and energy. So, they must see the relevance to their lives and future careers of what they are being asked to learn. Second, students want to get it, and get it quickly. So, they must be presented with clear and succinct explanations. And third, students want to make sense of today’s world and be better prepared for life after school. So, they must be shown how to apply the timeless principles of economics and its models to illuminate and provide a guide to understanding today’s events and issues, and the future challenges they are likely to encounter.

The organization of this text and MyLab arise directly from these guiding principles. Each chapter begins with a clear statement of learning objectives that correspond to each chapter section.

The learning resources also arise directly from the three guiding principles, and I will describe them by placing them in five groups:

■ Making economics real
■ Learning the vocabulary
■ Seeing the action and telling the story
■ Learning interactively—learning by doing
■ MyLab Economics

Making Economics Real
The student needs to see economics as a lens that sharpens the focus on real-world issues and events, and not as a series of logical exercises with no real purpose. Economics in the News and At Issue are designed to achieve this goal.

Each chapter opens with a student-friendly vignette that raises a question to motivate and focus the chapter. The chapter explains the principles, or model, that address the question and ends with an Economics in the News application that helps students to think like economists by connecting chapter tools and concepts to the world around them. All these news exercises are in MyLab with instant targeted feedback and auto-grading and constant uploading of new current exercises.

In many chapters, an additional briefer Economics in the News (shown here) presents a short news clip, supplemented by data where needed, poses some questions, and walks through the answers.

ECONOMICS IN THE NEWS

The Market for College Education
Why Is Tuition So High?

A decrease in supply brings a rise in price and a decrease in quantity demanded. A rise in demand brings a rise in price and an increase in quantity demanded. The equilibrium price and quantity are mutually determined.

Equilibrium price is $14,000 and equilibrium quantity is 8.5 million. Equilibrium price is $12,000 and equilibrium quantity is 9.5 million. If tuition increases, the demand for college education declines. If tuition decreases, the demand for college education increases.

The scatter diagram provides data on college enrollments and tuition from 1971 through 2015. The supply curve of college education, S, shifts right because the principle of increasing opportunity cost applies to college education just as it does to other goods and services.

In 2015, the demand for college education was $15,000 and 10 million students were enrolled in college. Between 2001 and 2015:
1. Income per person increased
2. Population increased, and
3. More men jobs required higher education. These and possibly other factors increased the demand for college education. The demand curve shifted upward to D2015. Equilibrium tuition increased to $15,000 and the quantity supplied increased to 10 million students. 

Five At Issue boxes, one of which is new, engage the student in debate and controversy. An At Issue box introduces an issue and then presents two opposing views. It leaves the matter unsettled so that students and the instructor can continue the argument in class and reach their own conclusions.

Economics in Action boxes make economics real by providing 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; the low cost of making and the high cost of selling a pair of shoes; how Apple doesn’t make the iPhone; opposing trends in air pollution and carbon concentration; and the size of the fiscal stimulus multipliers.

Interviews with leading economist, whose work correlates to what the student is learning, are the final component of making economics real. These interviews explore the education and research of prominent economists and their advice for those who want to continue studying the subject.

Learning the Vocabulary
Learning the vocabulary isn’t exciting, but it is the vital first step to every discipline and it needs to be effective and quick. Highlighted key terms simplify this task. Each key term is defined in the sentence in which it highlighted and appears in an end-of-chapter list and the end-of-book glossary (both with its page number); boldfaced in the index; and in MyLab Economics in an interactive glossary, Flash Card tool, and in an auto-graded Key Terms Quiz with targeted student feedback.

Key Terms
- Change in demand, 62
- Change in the quantity supplied, 45
- Complement, 63
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- Elasticity, 64
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MyLab Economics Key Terms Quiz

Learning Interactively—Learning by Doing
At the end of every chapter section, a Review Quiz invites the student to rework the section with questions that cover the key ideas. A parallel set of questions appears on the MyLab platform in a Key Terms Quiz, MyLab Economics Key Terms Quiz

Showing the Action and Telling the Story
Through the past twelve editions, this book has set the standard of clarity in its diagrams; the thirteenth edition continues to uphold this tradition. My goal is 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 at the principles level.

Recognizing that some 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.
in MyLab Study Plan enable the student to work the questions and get instant targeted feedback. 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, key points, and a key figure. This feature increases the incentive for the student to learn-by-doing and review the chapter actively, rather than passively. The worked problems are also available in MyLab Study Plan along with interactive animations of the problem's key figure.

**MyLab™ Economics**

**Reach Every Student with MyLab Economics** MyLab is the teaching and learning platform that empowers you to reach every student. By combining trusted author content with digital tools and a flexible platform, MyLab personalizes the learning experience and improves results for each student. Learn more about MyLab Economics. With our new enhanced Pearson eText, students will be able to interact with Figure Animations right in line with the text. Each chapter then concludes with a Worked Problem that consists of questions, solutions, and a key figure.

**Deliver Trusted Content** You deserve teaching materials that meet your own high standards for your course. That's why we partner with highly respected authors to develop interactive content and course-specific resources that you can trust — and that keep your students engaged. The Economics in the News stories address current issues that are likely to interest and motivate students, and are available to be assigned and auto-graded within MyLab Economics.

**Empower Each Learner** Each student learns at a different pace. Personalized learning pinpoints the precise areas where each student needs practice; giving all students the support they need — when and where they need it — to be successful.

**Teach Your Course Your Way** Your course is unique. So whether you'd like to build your own assignments, teach multiple sections, or set prerequisites, MyLab Economics gives you the flexibility to easily create your course to fit your needs. For instructors who want to make the most recent data a central part of their course, 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 can see the most recent data update automatically.

**Improve Student Results** When you teach with MyLab, student performance improves. That’s why instructors have chosen MyLab for over 15 years, touching the lives of over 50 million students.

**✿ Developing Employability Skills**

The economic way of thinking is a foundational skill for citizenship and career. Every feature of the text helps the student develop this skill, repeatedly using its central ideas of tradeoff; opportunity cost; the margin; incentives; the gains from voluntary exchange; the forces of demand, supply, and equilibrium; the pursuit of economic rent; and the tension between self-interest and the social interest.

The new section of Chapter 1, “Economists in the Economy”, identifies a further five general skills that are crucial for getting a job and developing a successful career. The table lists these skills and the features of this text that promote them.

**CAREER SKILLS AND THE FEATURES THAT PROMOTE THEM**

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<th>Feature</th>
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<td>and applications as short-answer written</td>
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<td>Oral communication skills</td>
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**Table of Contents Overview and Flexibility**

You have preferences for how you want to teach your course, and I’ve organized this book to enable you to choose your teaching path. The chart on p. x 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 fasttrack through either theory or policy issues, this text gives you the choice.
## Instructor Teaching Resources

The program comes with the following teaching resources.

<table>
<thead>
<tr>
<th>Supplements available to instructors at <a href="http://www.pearsonhighered.com/irc">www.pearsonhighered.com/irc</a></th>
<th>Features of the Supplement</th>
</tr>
</thead>
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| **Instructor’s Manual**  
*Macroeconomics Instructor’s Manual by Russ McCullough, Ottawa University* | ● Chapter-by-chapter overviews  
● List of what’s new in the thirteenth edition  
● Ready-to-use lecture notes |
| **Solutions Manual**  
*Macroeconomics Solutions Manual by Mark Rush, University of Florida* | ● Solutions to Review Quizzes  
● Solutions to the end-of-chapter Study Plan Problems and Applications  
● Solutions to the end-of-chapter Additional Problems and Applications |
| **Test Bank**  
*New questions for the Macroeconomics Test Bank by Luke Armstrong, Austin Community College, and Alexandra Nica, University of Iowa*  
*Mark Rush, University of Florida, reviewed all questions to ensure their clarity and consistency* | ● Nearly 7,000 multiple-choice, true/false, short-answer, and graphing questions with these annotations:  
● Difficulty level (1 for straight recall, 2 for some analysis, 3 for complex analysis)  
● Type (Multiple-choice, true/false, short-answer, essay)  
● Topic (The term or concept the question supports)  
● AACSB learning standard |
| **Computerized TestGen** | ● TestGen enables instructors to:  
■ Customize, save, and generate classroom tests  
■ Edit, add, or delete questions from the Test Item Files  
■ Analyze test results  
■ Organize a database of tests and student results. |
| **PowerPoints** | ● Slides include:  
■ Lectures with all the textbook figures and tables animated and speaking notes from the Instructor’s Manuals  
■ Large-scale versions of all textbook figures and tables animated, for instructors to incorporate into their own slide shows  
■ A student version of the lectures with animated textbook figures and tables.  
■ Accessibility PowerPoints meet standards for students with disabilities. Features include, but not limited to:  
■ Keyboard and Screen Reader access  
■ Alternative text for images  
■ High color contrast between background and foreground colors |
Tricia Murphy, Senior Product Marketer, and Carlie Marvel, Senior Field Marketing Manager, provided inspired marketing strategy and direction.

Catherine Baum provided a careful, consistent, and intelligent copy edit and accuracy check, and wrote original news articles for Economics in the News. And Heather Johnson with the other members of an outstanding editorial and production team at Integra kept the project on track on a 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 thirteenth edition supplements authors and contributors—Luke Armstrong, Svitlana Maksymenko, Russ McCullough, Alexandra Nica, Jim Self, Laurie Wolff, and Jeannie Shearer. Thanks, also, to Trevor Collier of the University of Dayton for reviewing MyLab exercises.

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 Shearer provided outstanding research assistance on many topics, including finding news articles and creating MyLab exercises. Richard Parkin created the electronic art files and offered many ideas that improved the figures in this book. Robin Bade managed an ever-growing and ever more complex MyLab database. And Sharmistha Nag helped me to create news-based exercises, Real-Time Data Analysis questions, and Draw Graph exercises.

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 selfless 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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