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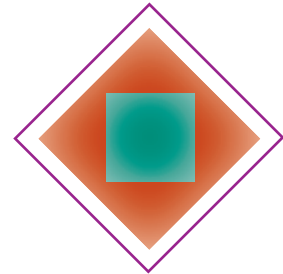
Michael Parkin

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ECONOMICS

FOURTEENTH EDITION
GLOBAL EDITION



MICHAEL PARKIN

University of Western Ontario



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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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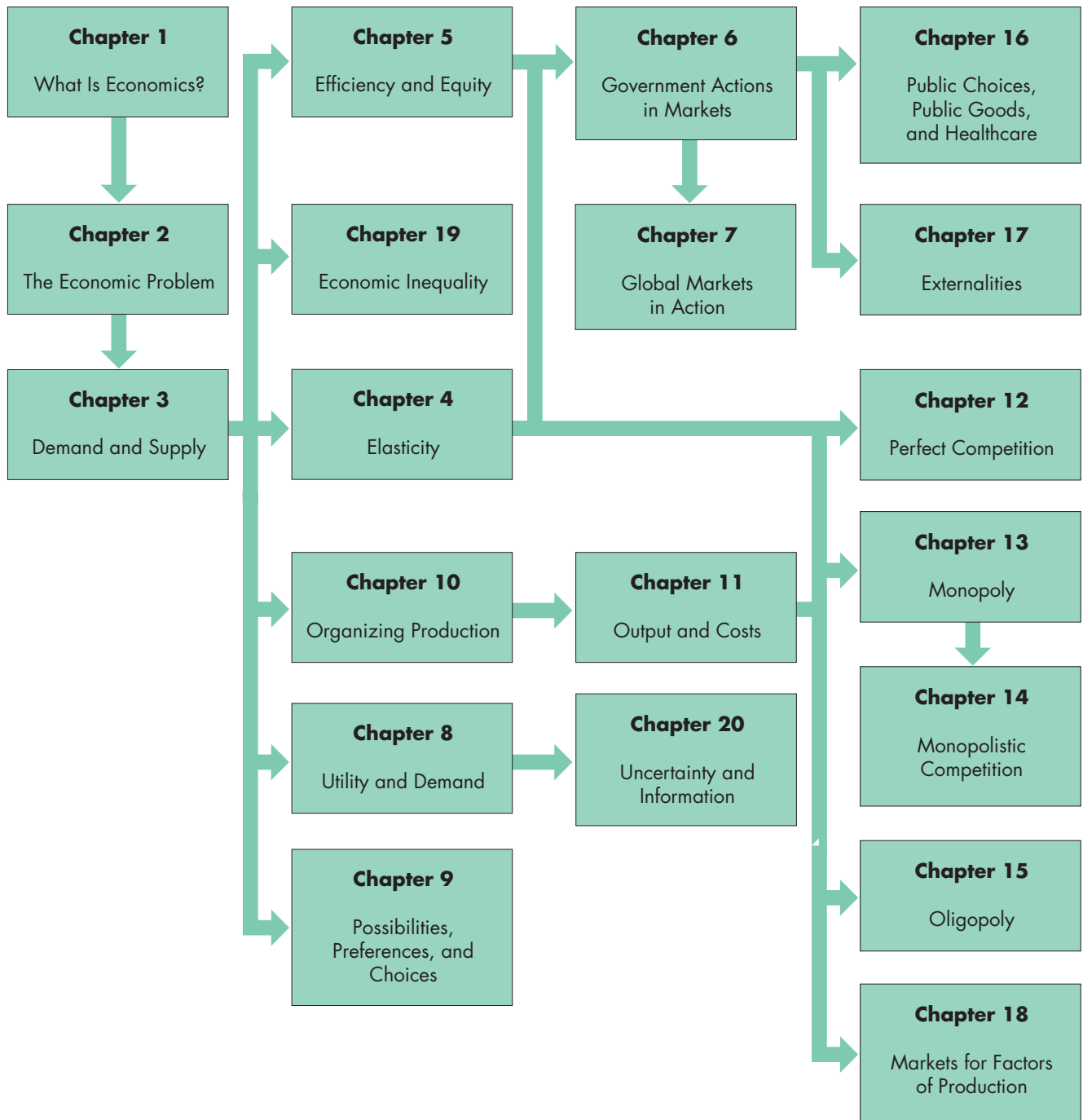
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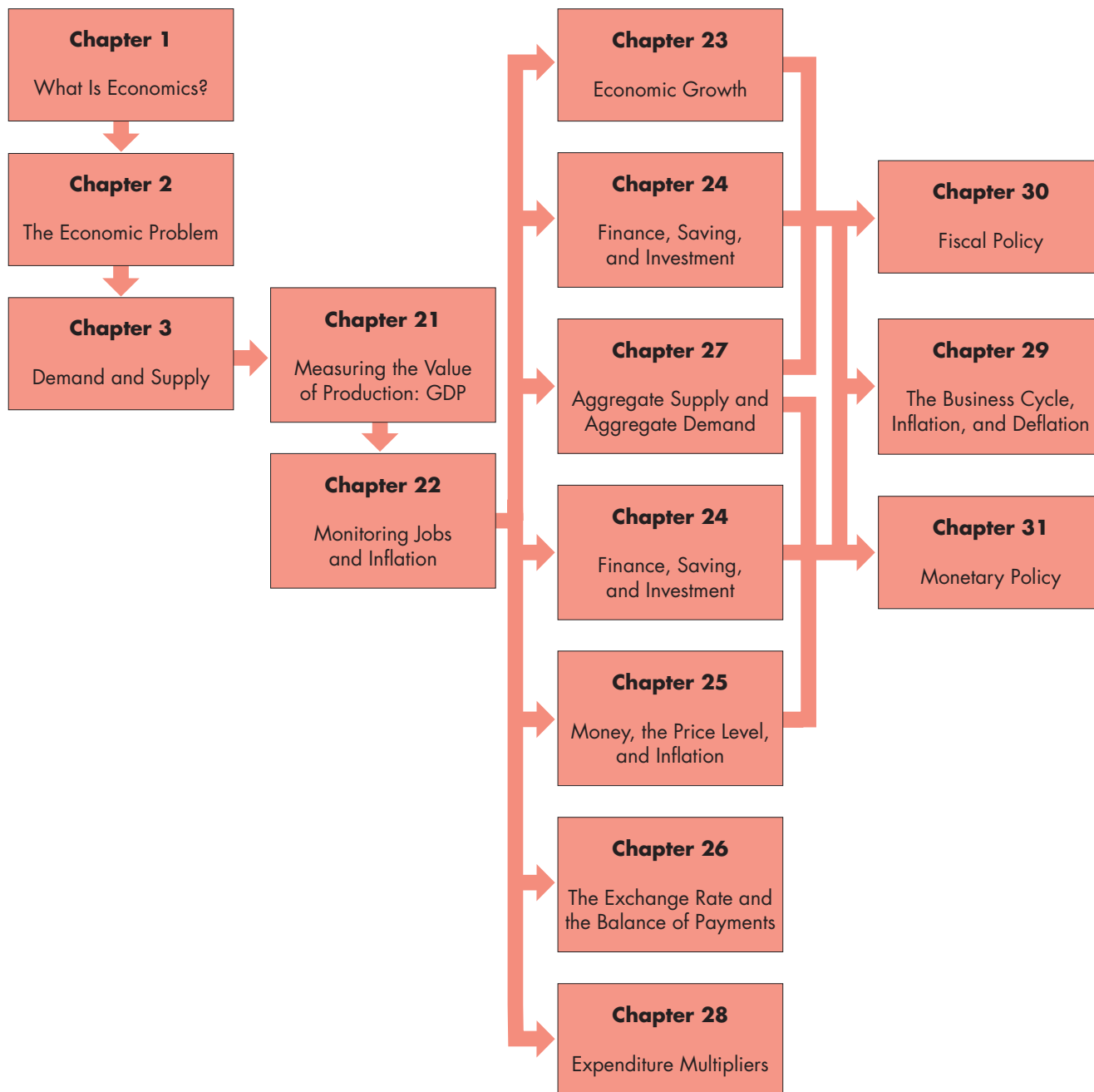
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ECONOMICS 14th Edition

Making economics real, showing the action and telling the story, learning interactively.

Making Economics Real

Economics in the News, Economics in Action, and Talking With focus on real-world issues and events.

ECONOMICS IN THE NEWS

The Market for Vanilla Bean

Crop Uncertainty Drives Vanilla Price Back to Record Level
The price of vanilla soared to a record \$270 a pound last year after a cyclone hit the Madagascar.

Source: *Financial Times*, March 25, 2018

Year	Quantity of vanilla bean (thousands of tons per year)	Price of vanilla bean (dollars per pound)
2015	7.5	30
2017	4.5	270

THE QUESTIONS

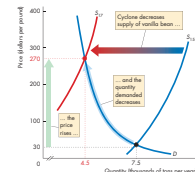
- What does the data table tell us?
- Why did the price of vanilla bean rise? Was it because the demand for vanilla bean changed or the supply changed. In which direction did it change?

THE ANSWERS

- The data table tells us that from 2015 to 2017, the quantity of vanilla bean produced decreased and the price of vanilla bean increased sharply.
- An increase in demand brings an increase in the quantity and a rise in the price.
- A decrease in supply brings a decrease in the quantity and a rise in the price.
- Because the quantity of vanilla bean decreased and the price of vanilla bean increased, there must have been a decrease in the supply of vanilla bean.
- The news clip says a cyclone hit Madagascar, which decreased production and brought a decrease in the supply of vanilla bean.
- The figure illustrates the market for vanilla bean in 2015 and 2017. The demand curve D shows the demand for vanilla bean.
- In 2015, the supply curve was S_1 , the price was \$30 a pound, and the quantity of vanilla bean traded was 7.5 thousand tons.



- In 2017, the decreased production in Madagascar decreased the supply of vanilla bean to S_2 .
- The price rose to \$270 a pound and the quantity traded decreased to 4.5 thousand tons.
- The higher price brought a decrease in the quantity of vanilla bean demanded, which is shown by the movement along the demand curve.



The Market for Vanilla Beans in 2015–2017

TALKING WITH Esther Duflo



ESTHER DUFILO is the Abdul Latif Jameel Professor of Poverty Alleviation and Development Economics at the Massachusetts Institute of Technology. Among her many honors are the 2010 John Bates Clark Medal for the best economist under 40 and the Financial Times and Goldman Sachs Business Book of the Year Award in 2011 for her book *Good Economics from Hell*. Professor Duflo's research seeks to advance our understanding of the economic choices of the extremely poor by conducting massive real-world experiments. Professor Duflo was an undergraduate student of history and economics at Ecole Normale Supérieure and completed a master's degree at CELIA in Paris before moving to the United States. She earned her Ph.D. in Economics at MIT in 1999. Michael Parkin talked with her about her work, which advances our understanding of the economic choices and conditions of the very poor.

Professor Duflo, what's the story about how you became an economist and in particular the architect of experiments designed to understand the economic choices of the very poor?

When I was a kid, I was exposed to many stories and images of poor children through my mother's engagement as a doctor in a small NGO dealing with child victims of war and through books and stories about children living all around the world. I remember asking myself how I could justify my lack of being born where I was. I had a very exaggerated idea of what it was to be poor, but this idea created sufficient discontent that I knew I had to do something about it. If I could. Quite by accident, I discovered that economics was the way in which I could actually be useful. While spending a year in Russia teaching French and studying History, I realized that academic economists have the ability to intervene in the world while keeping enough sanity to analyze it. I thought this would be ideal for me and I have never regretted it. I have the best job in the world.

The very poor whom you study are people who live on \$1 a day or \$2 a day. ... Is \$1 a day a true measure that includes everything these poor people consume?

For the definition of the poverty line, we don't include the cost of housing. The poor also get free goods, sometimes of bad quality (education, healthcare) and the value of those is also not included. Other than that, yes, it is everything.

Moreover, you have to realize this is everything, taking into account the fact that life is much cheaper in many poor countries because salaries are lower, so anything that is made and consumed locally (e.g., a haircut) is cheaper.

For example, in India, the purchasing power of a dollar (in terms of the real goods you can buy) is about 3 times what it is in the United States. So the poverty line we use for India is 3 cents per day, not a dollar.

It's hard, you really have to imagine living on under a dollar a day after your rent is paid in Seattle or Denver. Not easy!

ECONOMICS IN ACTION

Singapore Overtakes the United States

In 1980, the production possibilities per person in the United States were 40 percent higher than those in Singapore (see the figure). The United States doubled one-fifth of its resources to accumulating capital, and in 1980, was a power 1.5x in PPP. By 2010, U.S. production possibilities had doubled and production was at point A.

In 1980, Singapore devoted 45 percent of its resources to accumulating capital and was at point C on its PPF. By 1992, Singapore's GDP per person had grown to equal that of the United States, and by 2010 to exceed it by 80 percent at point D (see its 2010 PPF). If Singapore continues to devote more resources to accumulating capital than the United States does it will continue to grow more rapidly. But if Singapore decreases its capital accumulation, then its rate of economic growth will slow.

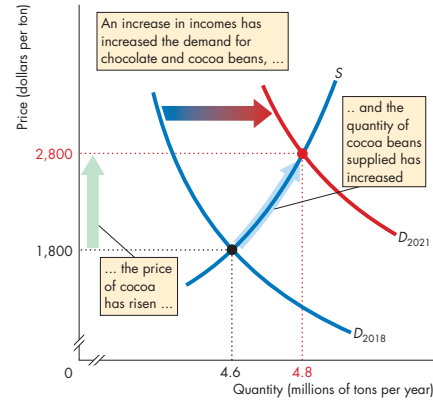
Singapore is typical of the fast-growing Asian economies, which include Taiwan, Thailand, South Korea, and China. Production possibilities expanded in these countries by between 5 percent and sometimes almost 40 percent a year.

Showing the Action and Telling the Story

Graphs with realistic values; consistent use of color with blended arrows that show action; boxed notes that tell the story; and captions that make each diagram a self-contained object for study and review.

Learning Interactively

Worked Problem, and the new *Economics in the News* video series with linked exercises promote active learning.



The Market for Cocoa Beans

WORKED PROBLEM

The table sets out the demand and supply schedules for roses on a normal weekend.

Price (dollars per rose)	Quantity demanded (roses per week)	Quantity supplied (roses per week)
6.00	150	60
7.00	100	100
8.00	70	130
9.00	50	150

Questions

- If the price of a rose is \$6, describe the situation in the rose market. Explain how the price adjusts.
- If the price of a rose is \$9, describe the situation in the rose market. Explain how the price adjusts.
- What is the market equilibrium?
- Rose sellers know that Mother's Day is next weekend and they expect the price to be higher, so they withhold 60 roses from the market this weekend. What is the price this weekend?
- On Mother's Day, demand increases by 160 roses. What is the price of a rose on Mother's Day?

Solutions

- At \$6 a rose, the quantity demanded is 150 and the quantity supplied is 60. The quantity demanded exceeds the quantity supplied and there is a shortage of 90 roses. With people lining up and a shortage, the price rises above \$6 a rose.
- At \$9 a rose, there is a shortage of 100 roses, so the price rises until, at \$9 a rose, the quantity demanded equals the quantity supplied. The price on Mother's Day is \$9 a rose. (Point C)

Key Point: When a shortage exists, the price rises.

- At \$9 a rose, the quantity demanded is 50 and the quantity supplied is 150. The quantity supplied exceeds the quantity demanded and there is a surplus of 100 roses. With slow sales of roses and a surplus, the price falls to below \$9 a rose.
- Market equilibrium occurs at the price at which the quantity demanded equals the quantity supplied. That price is \$7 a rose. The market equilibrium is a price of \$7 a rose and 100 roses a week bought and sold, point A on the figure.

Key Point: At market equilibrium, there is no shortage or surplus.

- Sellers expect a higher price next weekend, so they decrease the quantity supplied this weekend by 60 roses at each price. Create the new table:

Price (dollars per rose)	Quantity demanded (roses per week)	Quantity supplied (roses per week)
6.00	150	0
7.00	100	40
8.00	70	70
9.00	50	90

At \$7 a rose, there is a shortage of 60 roses, so the price rises to \$8 a rose, where the quantity demanded equals the quantity supplied. (Point B)

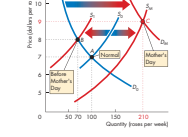
Key Point: When supply decreases, the price rises.

- Demand increases by 160 roses. Sellers plan to increase the normal supply by the 60 roses withheld last weekend. Create the new table:

Price (dollars per rose)	Quantity demanded (roses per week)	Quantity supplied (roses per week)
6.00	310	120
7.00	260	160
8.00	230	190
9.00	210	210

At \$7 a rose, there is a shortage of 100 roses, so the price rises until, at \$9 a rose, the quantity demanded equals the quantity supplied. The price on Mother's Day is \$9 a rose. (Point C)

Key Point: When demand increases by more than supply, the price rises.



IS THE WORLD RUNNING OUT OF CHOCOLATE?



ECONOMICS IN THE NEWS

What's New in This Edition

New in this fourteenth edition revision are: Fine-tuning the content; several notable changes; and an applications video series.

Fine-Tuning the Content

This revision is driven by the drama of the extraordinary period of economic history in which we are living and its rich display of events and forces through which students can be motivated to discover the power of economic models and the economic way of thinking. Chief among these events is the Covid pandemic, its impacts on markets and resource allocation, and the extraordinary fiscal policy and monetary policy responses it has brought.

But Covid isn't an isolated shock in an otherwise tranquil world. Persistent slow economic growth; increasing concentration of wealth; ongoing tensions arising from the loss of American jobs to offshore outsourcing and the political popularity of trade protection; a slowing pace of China's expansion; enhanced concern about carbon emission and climate change; relentless pressure on the federal budget from the demands of an aging population and a sometimes dysfunctional Congress with its associated rising government debt; the dilemma posed by slow, more than decade-long recovery from a global financial crisis and recession and the related question, magnified by Covid, of when and how fast to exit an era of extreme monetary stimulus. All of these events feature at the appropriate points in this new edition.

Every chapter contains many small changes, all designed to enhance clarity, currency, and relevancy and the text and examples are all updated to reflect the most recently available data and events.

Notable Content Changes

Chapter 1, What Is Economics?, has a new section on the diversity challenge in economics. Women and minorities are under-represented in economics at every level: in undergraduate programs, graduate school, faculty appointments, and the broader private and public sector jobs. Under-representation in economics is more persistent and greater than in other subjects that use similar skills.

Several chapters feature some aspect of the Covid pandemic:

- Chapter 2, The Economic Problem, explores the effects of the pandemic on the production possibilities frontier.
- Chapter 3, Demand and Supply, looks at the hand sanitizer market.
- Chapter 4, Elasticity, examines the elasticity of supply of face masks.
- Chapter 8, Utility and Demand, looks at movie streaming in the pandemic.
- Chapter 12, Perfect Competition, looks at the effect of Covid in the competitive market for fitness equipment and services.
- Chapter 19, Economic Inequality, examines the increased inequality arising from Covid's labor market effects.
- Chapter 21, Measuring the Value of Production: GDP, nowcasting GDP in the pandemic.
- Chapter 22, Monitoring Jobs and Inflation, measuring unemployment.
- Chapter 25, Money, the Price Level, and Inflation, massive bond buying by the Federal Reserve.
- Chapter 27, Aggregate Supply and Aggregate Demand, the Covid recession viewed through the lens of the *AS-AD* model.

- Chapter 28, Expenditure Multipliers, inventories in the Covid recession.
- Chapter 29, The Business Cycle, Inflation, and Deflation, post-Covid inflation fears.
- The effects of fiscal and monetary stimulus in the Covid recession in Chapters 30 and 31.

Other notable changes include an illustration of the power of the demand and supply model to predict and explain large recent changes in the prices of chocolate and vanilla bean, in Chapter 3; Government Actions in Markets, an analysis of President Joe Biden’s push for a \$15 minimum wage, in Chapter 6; Global Markets in Action, updated discussions of the work of the World Trade Organization and its new Director General, Ngozi Okonjo-Iweala and the U.S.–China trade war, in Chapter 7; Possibilities, Preferences, and Choices, an analysis of the effects of a tax on sugary drinks, in Chapter 9; Organizing Production, an explanation of Tim Cook’s pay deal with Apple and an analysis of the digital advertising market, in Chapter 10; Output and Costs, a look at Amazon’s distribution center decisions, in Chapter 11; Monopolistic Competition, product differentiation in streaming services, in Chapter 14; Oligopoly, an account of a 5G prisoners’ dilemma, in Chapter 15; and Externalities, an analysis of carbon pricing to lower emissions, in Chapter 17.

All the chapters are updated to include the latest data on: the national accounts in Chapter 21; the labor market and price indexes, Chapter 22; economic growth, Chapter 23; interest rates and loanable funds, Chapter 24; banks and the money market, Chapter 25; the exchange rate and balance of payments, Chapter 26; the short-run Phillips curve tradeoff, Chapter 29; fiscal policy, Chapter 30; and monetary policy, Chapter 31. Other changes include an explanation of the Fed’s new operating procedures with ample reserves, Chapter 31; a look at China’s slowing growth rate, Chapter 23; the growth of “fintec” in financial markets, Chapter 24; and currency manipulation, Chapter 26.

Notable New Videos

Videos based on *Economics in the News* and *Economics in Action* boxes provide a lively alternative way of applying economic principles to real-world issues and events. Each video runs for around two minutes and is accompanied by a short quiz. Examples of items included in this video series are the rising price of chocolate, the push for a \$15 minimum wage, Target’s store remodeling and the firm’s cost curves, price discrimination at Disney World, the UN Human Development Index (HDI), unemployment in the Covid recession, money and interest rates, China’s currency manipulation, aggregate demand and aggregate supply in action, and the fiscal policy and monetary policy responses to Covid.

The Vision

To change the way students see the world: this is my goal in teaching economics and in writing this book. Three facts about students are my guiding principles.

First, students 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.

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, structure, and features of this text arise directly from the three guiding principles, and I will describe them by placing them in four groups:

- Making economics real
- Showing the action and telling the story
- Learning interactively—learning by doing
- Developing employability and citizenship skills

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*, *At Issue*, and *Economics in Action* are designed to achieve this goal.

Each chapter ends with an *Economics in the News* application that helps students to think like economists by connecting the chapter tools and concepts to the world around them.

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

Eleven *At Issue* boxes 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 the HDI versus GDP; the fast-growing Asian economies; the home price bubble; banks flush with reserves; and the size of the fiscal stimulus multipliers.

Interviews with leading economists, 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.

Showing the Action and Telling the Story

Through the past thirteen editions, this book has set the standard of clarity in its diagrams; the fourteenth 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. The diagrams feature

- Axes that measure and display concrete real-world data, and where possible and relevant, the most recent data
- Graphs paired with data tables from which curves are plotted
- Original curves consistently shown in blue
- Shifted curves, equilibrium points, and other important features highlighted in red
- Color-blended arrows to indicate movement
- Diagrams labeled with boxed notes that tell the story
- Extended captions that make each diagram and its caption a self-contained object for study and review