PRINCIPLES OF ECONOMICS

2024 Release

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DEDICATION

For Ellen

R. H. F.

For Anna

B. S. B.

For Fiona and Henry

K. A.

For Katrina, Eleanor, Daniel, and Amalia

O. H.

ABOUT THE AUTHORS

ROBERT H. FRANK

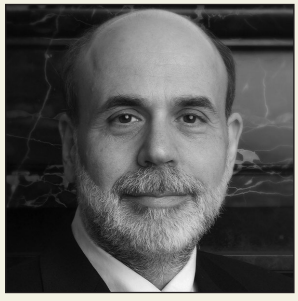
Courtesy of Robert H. Frank

Robert H. Frank is the H. J. Louis Professor of Management and Professor of Economics, emeritus, at Cornell's Johnson School of Management, where he taught from 1972 to 2020. After receiving his B.S. from Georgia Tech in 1966, he taught math and science for two years as a Peace Corps Volunteer in rural Nepal. He received his M.A. in statistics in 1971 and his Ph.D. in economics in 1972 from The University of California at Berkeley. He also holds honorary doctorate degrees from the University of St. Gallen and Dalhousie University. During leaves of absence from Cornell, he has served as chief economist for the Civil Aeronautics Board (1978–1980), a Fellow at the Center for Advanced Study in the Behavioral Sciences (1992–1993), Professor of American Civilization at l'Ecole des Hautes Etudes en Sciences Sociales in Paris (2000–2001), and the Peter and Charlotte Schoenfeld Visiting Faculty Fellow at the NYU Stern School of Business in 2008–2009. His papers have appeared in the *American Economic Review, Econometrica,* the *Journal of Political Economy,* and other leading professional journals, and for more than two decades, his economics columns appeared regularly in *The New York Times.*

Professor Frank is the author of a best-selling intermediate economics textbook—*Microeconomics and Behavior* (McGraw Hill, 2024). His research has focused on rivalry and cooperation in economic and social behavior. His books on these themes include *Choosing the Right Pond* (Oxford, 1985), *Passions Within Reason* (W. W. Norton, 1988), *What Price the Moral High Ground?* (Princeton, 2004), *Falling Behind* (University of California Press, 2007), *The Economic Naturalist* (Basic Books, 2007), *The Economic Naturalist's Field Guide* (Basic Books, 2009), *The Darwin Economy* (Princeton, 2011), *Success and Luck* (Princeton, 2016), and *Under the Influence* (Princeton, 2020), which have been translated into 24 languages. *The Winner-Take-All Society* (The Free Press, 1995), co-authored with Philip Cook, received a Critic's Choice Award, was named a Notable Book of the Year by *The New York Times,* and was included in *BusinessWeek*'s list of the 10 best books of 1995. *Luxury Fever* (The Free Press, 1999) was named to the *Knight-Ridder* Best Books list for 1999.

Professor Frank is a co-recipient of the 2004 Leontief Prize for Advancing the Frontiers of Economic Thought. He was awarded the Johnson School's Stephen Russell Distinguished Teaching Award in 2004, 2010, 2012, and 2018, and the School's Apple Distinguished Teaching Award in 2005. His introductory microeconomics course has graduated more than 7,000 enthusiastic economic naturalists over the years.

BEN S. BERNANKE



Ben S. Bernanke

Professor Bernanke received his B.A. in economics from Harvard University in 1975 and his Ph.D. in economics from MIT in 1979. He taught at the Stanford Graduate School of Business from 1979 to 1985 and moved to Princeton University in 1985, where he was named the Howard Harrison and Gabrielle Snyder Beck Professor of Economics and Public Affairs and where he served as chair of the Economics Department. Professor Bernanke is currently a Distinguished Fellow in Residence with the Economic Studies Program at the Brookings Institution.

Professor Bernanke was sworn in on February 1, 2006, as chair and a member of the Board of Governors of the Federal Reserve System; his second term expired January 31, 2014. Professor Bernanke also served as chair of the Federal Open Market Committee, the Fed's principal monetary policymaking body. Professor Bernanke was also chair of the President's Council of Economic Advisers from June 2005 to January 2006.

Professor Bernanke's intermediate textbook, with Andrew Abel and Dean Croushore, *Macroeconomics,* Tenth Edition (Pearson, 2021), is a best seller in its field. He has authored numerous scholarly publications in macroeconomics, macroeconomic history, and finance. He has done significant research on the causes of the Great Depression, the role of financial markets and institutions in the business cycle, and measurement of the effects of monetary policy on the economy.

Professor Bernanke has held a Guggenheim Fellowship and a Sloan Fellowship, and he is a Fellow of the Econometric Society and of the American Academy of Arts and Sciences. He served as the director of the Monetary Economics Program of the National Bureau of Economic Research (NBER) and as a member of the NBER's Business Cycle Dating Committee. From 2001 to 2004 he served as editor of the *American Economic Review,* and as president of the American Economic Association in 2019. Professor Bernanke's work with civic and professional groups includes having served two terms as a member of the Montgomery Township (New Jersey) Board of Education. In 2022 Professor Bernanke was awarded the Nobel Prize in Economics for his research on the Great Depression, which suggested that among the contributing factors were credit market stress and a failing gold standard.

KATE ANTONOVICS

Kate Antonovics

Professor Antonovics received her B.A. from Brown University in 1993 and her Ph.D. in economics from the University of Wisconsin in 2000. Shortly thereafter, she joined the faculty in the Economics Department at the University of California,

San Diego. Professor Antonovics is also currently serving as the Provost of UC San Diego's Seventh College.

Professor Antonovics is known for her excellence in teaching and her innovative use of technology in the classroom. Her popular introductory-level microeconomics courses have regularly enrolled over 900 students each fall. She also teaches labor economics at both the undergraduate and graduate level. She has received numerous teaching awards, including the UCSD Department of Economics award for Best Undergraduate Teaching, the UCSD Academic Senate Distinguished Teaching Award, and the UCSD Chancellor's Associates Faculty Excellence Award in Undergraduate Teaching.

Professor Antonovics's research has focused on racial discrimination, gender discrimination, affirmative action, intergenerational income mobility, learning, and wage dynamics. Her papers have appeared in the *American Economic Review,* the *Review of Economics and Statistics,* the *Journal of Labor Economics,* and the *Journal of Human Resources.* She is a member of both the American Economic Association and the Society of Labor Economists.

ORI HEFFETZ

Ori Heffetz

Professor Heffetz received his B.A. in physics and philosophy from Tel Aviv University in 1999 and his Ph.D. in economics from Princeton University in 2005. He is an Associate Professor of Economics at the Samuel Curtis Johnson Graduate School of Management at Cornell University, and at the Economics Department at the Hebrew University of Jerusalem.

Bringing the real world into the classroom, Professor Heffetz has created a unique macroeconomics course that introduces basic concepts and tools from economic theory and applies them to current news and global events. His popular classes are taken by hundreds of students every year on Cornell's Ithaca and New York City campuses and via live videoconferencing in dozens of cities across the United States, Canada, and Latin America.

Professor Heffetz's research studies the social and cultural aspects of economic behavior, focusing on the mechanisms that drive consumers' choices and on the links between economic choices, individual well-being, and policymaking. He has published scholarly work on household consumption patterns, individual economic decision making, and survey methodology and measurement. He was a visiting researcher at the Bank of Israel during 2011, is currently a Research Associate at the National Bureau of Economic Research (NBER), and serves on the editorial board of *Social Choice and Welfare.*

FOCUSED ON SEVEN CORE PRINCIPLES TO PRODUCE ECONOMIC NATURALISTS THROUGH ACTIVE LEARNING

Our 2024 release arrives in the midst of some of the most dramatic upheavals ever witnessed, both in the economy generally and in higher education in particular. The COVID-19 pandemic produced levels of unemployment not seen since the Great Depression and created dramatic changes in the ways we teach across educational institutions at every level.

These developments have reinforced our confidence in the instructional philosophy that motivated us to produce our first edition—the need to strip away clutter and focus more intensively on central concepts. This approach, we believe, is especially well-suited for the new environment.

In earlier editions, we noted that although many millions of dollars are spent each year on introductory economics instruction in American colleges and universities, the return on this investment has been disturbingly low. Studies have shown, for example, that several months after having taken a principles of economics course, former students are no better able to answer simple economics questions than others who never even took the course. Most students, it seems, leave our introductory courses without having learned even the most important basic economic principles. Such dismal performance, never defensible, has become even more difficult to justify in the face of looming resource shortages in higher education.

The problem, in our view, has almost always been that courses try to teach students far too much. In the process, really important ideas get little more coverage than minor ones, and everything ends up going by in a blur. The human brain tends to ignore new information unless it comes up repeatedly. That's hardly surprising, since only a tiny fraction of the terabytes of information that bombard us each day is likely to be relevant for anything we care about. Only when something comes up a third or fourth time does the brain start laying down new circuits for dealing with it. Yet when planning their lectures, many instructors ask themselves, "How much can I cover today?" And because modern electronic media enable them to click through upward of 100 PowerPoint slides in an hour,

they feel they better serve their students when they put more information before them. But that's not the way learning works. Professors should instead be asking, "How much can my students absorb?"

Our approach to this text was inspired by our conviction that students will learn far more if we attempt to cover much less. Our basic premise is that a small number of basic principles do most of the heavy lifting in economics, and that if we focus narrowly and repeatedly on those principles, students can actually master them in just a single semester. The enthusiastic reactions of users of previous editions of our textbook affirm the validity of this premise. Avoiding excessive reliance on formal mathematical derivations, we present concepts intuitively through examples drawn from familiar contexts. We rely throughout on a well-articulated list of seven Core Principles, which we reinforce repeatedly by illustrating and applying each principle in numerous contexts. We ask students periodically to apply these principles themselves to answer related questions, exercises, and problems.

Another distinguishing feature of this text is its explicit recognition of the pedagogical challenge posed by the broad variance in students' quantitative backgrounds and in instructor preferences about the optimal level of mathematical detail for the course. We confront this challenge by relegating more detailed mathematical treatment of selected topics to chapter appendices. For example, Chapter 5, *Demand,* emphasizes the key intuition that underpins utility maximization, and relegates the formal presentation of indifference curves and budget constraints to the appendix, allowing instructors the freedom to choose the approach that best suits their needs. Similarly, Chapter 25, *Spending and Output in the Short Run,* uses diagrams and numerical examples to convey the main ideas behind the basic Keynesian model (the "Keynesian cross"), saving a more general algebraic analysis to Appendix A and a derivation of the multiplier formula to Appendix B—again providing flexibility to instructors. Many adopters have cited this additional flexibility as a reason for having chosen our book.

Throughout the body of the text, however, our principal focus is not on quantitative detail but rather on students to become "economic naturalists," people who employ basic economic principles to understand and explain what they observe in the world around them. An economic naturalist understands, for example, that infant safety seats are required in cars but not in airplanes because the marginal cost of space to accommodate these seats is typically zero in cars but often hundreds of dollars in airplanes. Scores of such examples are sprinkled throughout the book. Each one, we believe, poses a question that should make any curious person eager to learn the answer. These examples stimulate interest while teaching students to see each feature of their economic landscape as the reflection of one or more of the Core Principles. Students talk about these examples with their friends and families. Learning economics is like learning a language. In each case, there is no substitution for actually speaking. By inducing students to speak economics, The Economic Naturalist examples serve this purpose.

For those who would like to learn more about the role of examples in learning economics, Bob Frank's lecture on this topic is posted on YouTube's "Authors@Google" series (www.youtube.com/watch?v=QalNVxeIKEE), or search "Authors@Google Robert Frank."

KEY THEMES AND FEATURES

Emphasis on Seven Core Principles

Because a few Core Principles do most of the work in economics, focusing almost exclusively on these principles ensures that students leave the course with a deep mastery of them. In contrast, traditional encyclopedic texts so overwhelm students with detail that they often leave the course with little useful working knowledge at all.

1. **The Scarcity Principle:** Although we have boundless needs and wants, the resources available to us are limited. So having more of one good thing usually means having less of another.

2. **The Cost-Benefit Principle:** An individual (or a firm or a society) should take an action if, and only if, the extra benefits from taking the action are at least as great as the extra costs.

3. **The Incentive Principle:** A person (or a firm or a society) is more likely to take an action if its benefit rises, and less likely to take it if its cost rises. In short, incentives matter.

4. **The Principle of Comparative Advantage:** Everyone does best when each concentrates on the activity for which his or her opportunity cost is lowest.

5. **The Principle of Increasing Opportunity Cost:** In expanding the production of any good, first employ those resources with the lowest opportunity cost, and only afterward turn to resources with higher opportunity costs.

6. **The Efficiency Principle:** Efficiency is an important social goal because when the economic pie grows larger, everyone can have a larger slice.
7. **The Equilibrium Principle:** A market in equilibrium leaves no unexploited opportunities for individuals but may not exploit all gains achievable through collective action.

Economic Naturalism

Our ultimate goal is to produce economic naturalists—people who see each human action as the result of an implicit or explicit cost-benefit calculation. The economic naturalist sees mundane details of ordinary existence in a new light and becomes actively engaged in the attempt to understand them. Some representative examples:

In Micro:

- Why do movie theaters offer discount tickets to students?
- Why do we often see convenience stores located on adjacent street corners?
- Why do supermarket checkout lines all tend to be roughly the same length?

In Macro:

- Why do citizens in some foreign countries hold more U.S. dollars than many U.S. citizens?
- Why does news of inflation hurt the stock market?
- Why do almost all countries provide free public education?

Economic Naturalist Video Series: We are very excited to offer a video series based on The Economic Naturalist examples. A series of videos covering some of our favorite micro- and macro-focused examples can be used as part of classroom presentations or assigned for homework along with accompanying questions within McGraw Hill Connect®. These fascinating, fun, and thought-provoking applications of economics in everyday life encourage students to think like an economist. Refer to the distinguishing features pages of the preface for additional information. You can view one of these dynamic videos here: http://econeveryday.com/why-do-cooked-rotisserie-chickens-cost-less-than-fresh-uncooked-chickens.

Active Learning Stressed

The only way to learn to hit an overhead smash in tennis is through repeated practice. The same is true for learning economics. Accordingly, we consistently introduce new ideas in the context of simple examples and then follow them with applications showing how they work in familiar settings. At frequent intervals, we pose self-tests that both test and reinforce the understanding of these ideas. The end-of-chapter questions and problems are carefully crafted to help students internalize and extend basic concepts and are available within Connect as assignable content so that instructors can require students to engage with this material. Experience with earlier editions confirms that this approach really does prepare students to apply basic economic principles to solve economic puzzles drawn from the real world.

Learning Glass Lecture Videos: A collection of brief instructional videos featuring the authors Kate Antonovics and Ori Heffetz utilize learning glass technology to provide students with an overview of important economic concepts. Perfect for an introduction to basic concepts before coming to class, or as a quick review, these videos, with accompanying questions, can be assigned within Connect or used as part of classroom discussion.

Both The Economic Naturalist and Learning Glass videos and accompanying multiple-choice questions that test students' understanding of the principles illustrated in the videos have become valued tools for instructors who incorporate elements of the flipped-classroom approach in their teaching, or those who are relying more heavily on other forms of remote learning.

Modern Microeconomics

Economic surplus is more fully developed here than in any other text. This concept underlies the argument for economic efficiency as an important social goal. Rather than speak of trade-offs between efficiency and other goals, we stress that maximizing economic surplus facilitates the achievement of *all* goals.

One of the biggest hurdles to the fruitful application of cost-benefit thinking is to recognize and measure the relevant costs and benefits. Common decision pitfalls identified by 2002 Nobel laureate Daniel Kahneman and others—such as the tendency to ignore implicit costs, the tendency not to ignore sunk costs, and the tendency to confuse average and marginal costs and benefits—are introduced in Chapter 1, *Thinking Like an Economist,* and discussed repeatedly in subsequent chapters.

There is perhaps no more exciting toolkit for the economic naturalist than a few principles of elementary game theory. In Chapter 9, *Games and Strategic Behavior,* we show how these principles enable students to answer

a variety of strategic questions that arise in the marketplace and everyday life. In new Chapter 10, *An Introduction to Behavioral Economics,* we survey many of the most exciting developments in what has become the economics profession's most vibrant new field. We believe that the insights of Nobel laureate Ronald Coase are indispensable for understanding a host of familiar laws, customs, and social norms. In Chapter 11, *Externalities, Property Rights, and the Environment,* we show how such devices function to minimize misallocations that result from externalities.

Modern Macroeconomics

Both the Great Recession and the COVID-19 pandemic have renewed interest in cyclical fluctuations without challenging the importance of such long-run issues as growth, productivity, the evolution of real wages, and capital formation. Our treatment of these issues is organized as follows:

- A five-chapter treatment of *long-run issues,* followed by a modern treatment of *short-term fluctuations and stabilization policy,* emphasizes the important distinction between short- and long-run behavior of the economy.
- *Designed to allow for flexible treatment of topics,* these chapters are written so that short-run material (Chapters 24–27) can be used before long-run material (Chapters 19–23) with no loss of continuity.
- The analysis of aggregate demand and aggregate supply relates output to inflation rather than to the price level, sidestepping the necessity of a separate derivation of the link between the output gap and inflation. The discussion of monetary policy has two parts. It starts with a standard supply and demand analysis of the market for money that is centered on the short-run interest rate. It then introduces the new tools of monetary policy, such as quantitative easing and forward guidance, that have been so important since 2008, and that again took center stage in the 2020 response to the pandemic.
- This book places a heavy emphasis on *globalization,* starting with an analysis of its effects on real wage inequality and progressing to such issues as the costs and benefits of—and the likely winners and losers from—trade, the causes and effects of protectionism, the role of capital flows in domestic capital formation, the link between exchange rates and monetary policy, and the sources of speculative attacks on currencies.

CHANGES IN THE 2024 RELEASE

Changes Common to All Chapters

In all chapters, the narrative has been tightened. Many of the examples have been updated, with a focus on student-centered examples that connect to current topics such as the COVID-19 pandemic and bank failures. Data have been updated throughout.

Chapter-by-Chapter Changes

Chapter 1

- Updated the list of important pitfalls that occur when applying the Cost-Benefit Principle inconsistently from three to four pitfalls.
- Added a new section and new learning objective introducing invisible hand theory.
- Replaced Economic Naturalist 1.2 with an updated example on check-splitting moved to this chapter from Chapter 14.
- New and updated end-of-chapter problems that reinforce the chapter's learning objectives, including the new learning objective added to reflect invisible hand theory.

Chapter 2

- New Economic Naturalist 2.3 "How will climate change affect wine-industry specialization?"
- Economic Naturalist 2.3 and 2.4 renumbered to Economic Naturalist 2.4 and 2.5, respectively.

Chapter 3

- Economic Naturalist 3.4 moved earlier in the chapter and now appears as The Economic Naturalist 3.3. The subsequent Economic Naturalist example renumbered accordingly.
- Rewording of some examples related to climate change and vaccines in the narrative for clarity and currency.
- New Economic Naturalist 3.5 "Why do physicians tend to overprescribe antibiotics?" added at the end of the chapter.

Chapter 4

- Added a new learning objective "Show how values of long-run price elasticities of demand influence the design of the economic policy." All subsequent learning objectives renumbered accordingly in the chapter narrative and among the end-of-chapter questions.

- "Using Price Elasticity of Demand" was promoted to a first-level head and two entirely new subsections, "Social Contagion and the Long-Run Price Elasticity of Demand" and "The Long-Run Response to a Carbon Tax" were added.
- Reversed the order of Economic Naturalist 4.1 and 4.2.
- New end-of-chapter problem added to reflect the new learning objective.

Chapter 5
- Updated Economic Naturalist 5.4 and gasoline examples with updated data in the chapter narrative.

Chapter 6
- No substantive changes.

Chapter 7
- "Smart for One, Dumb for All" subsection rewritten to draw in invisible hand theory and market failure.

Chapter 8
- Minor updates to a few end-of-chapter problems.
- No substantive changes.

Chapter 9
- New Example 9.4 "Will firms voluntarily incur costs to adopt cleaner production methods?" further illustrates why the prisoner's dilemma is a powerful metaphor for describing why markets don't always deliver the best outcomes possible.
- Subsequent examples renumbered accordingly.
- Minor updates to a few end-of-chapter problems.

Chapter 10
- Economic Naturalist 10.5 moved to Chapter 14.
- Adjustments made to end-of-chapter problem 7.

Chapter 11
- Subsection "Controlling Multinational Environmental Pollution" changed to "Controlling Emissions of Greenhouse Gases."
- Updated climate change section.
- Updated end-of-chapter problem 7.

Chapter 12
- No substantive changes.

Chapter 13
- Updated student-centered examples, such as Serena Williams and Taylor Swift.
- Updated discussion of recent trends in inequality.

Chapter 14
- Added discussion describing the case for Pigouvian taxes as source of revenue for public goods.
- Added material here from Chapter 10 related to cognitive illusions and added a related learning objective.
- New subsection on how government policy matters and how data on the determinants of human flourishing inform the debate on how extensive the government's role should be. A new associated learning objective added to reflect this new material as well.

Chapter 15
- Updated Economic Naturalist 15.2 to highlight the imposition of tariffs on imports from China.
- Replaced Economic Naturalist 15.3 with a new example that answers the question "Why did the U.S. impose restrictions on exports to China?"

Chapter 16
- Updated narrative throughout to reflect the extensive updates to data.

Chapter 17
- Year references throughout updated for currency.
- Replaced Tables 17.2 and 17.5 with updated data and the chapter narrative was updated accordingly.
- Updated Self-Test 17.6 with an updated solution.

Chapter 18
- Year references throughout updated for currency.
- CPI values updated throughout to reflect percentages rather than decimal form (values were multiplied by 100 throughout to achieve this). For example, a value that previously appeared as 1.25 now changed to 125. Many of these changes appear in "The Consumer Price Index" and "Inflation" sections.
- Self-Test 18.4, 18.5, 18.6 with accompanying solutions updated.
- Example 18.3 updated replacing Stephen Strasberg with Max Scherzer and his earnings.

- Example 18.4 updated with new data values.
- New paragraph added to the "'Shoe-Leather' Costs" subsection to reflect the financial costs of keeping up with inflation.
- Extensive updates to the end of chapter material.

Chapter 19
- New example using the COVID-19 vaccine added to the introduction.
- All figure data updated with corresponding references updated accordingly.

Chapter 20
- Updated labor market trend data with updates to the narrative accordingly.
- Shifts in unemployment data due to the COVID pandemic added to the "Unemployment" section.

Chapter 21
- Household savings rate data updated in introduction.
- Economic Naturalist 21.1 updated to reflect the impacts of the COVID-19 pandemic.
- Updated dates and data used in Examples 21.3 and 21.4.
- All figures in the chapter updated.
- Self-Test 21.4 values updated along with the accompanying solution.

Chapter 22
- Updated Bitcoin data added to The Economic Naturalist 22.1.
- Updated components of M1 and M2 data (Table 22.1)
- A new series of assumptions for the Gorgonzola examples added for clarity.
- Silicon Valley Bank run of 2023 example added to the banking panics subsection.
- Updated velocity data in Example 22.4.

Chapter 23
- Years updated in Example 23.1.
- Data updates made in The Economic Naturalist 23.3 example.

Chapter 24
- Extensive data updates made throughout the chapter and end-of-chapter problems.

Chapter 25
- Updated Economic Naturalist 25.5 to include pandemic assistance and tax-relief legislation.

Chapter 26
- Learning objectives LO3 and LO4 edited.
- Updates made to the introduction for currency and Greenspan references removed.
- The "Federal Reserve and Interest Rate: The Basic Model" section retitled to appear as "The Federal Reserve and Interest Rate: The Traditional Model," with some minor refinements made throughout this section.
- Economic Naturalist 26.1 modified.
- Money demand and supply recap split among its subsections.
- Economic Naturalist 26.2 updated to reflect the global financial crisis of 2007–2008 and effects of the COVID-19 pandemic.
- Economic Naturalist 26.3 updated to reflect tightening of monetary policy in 2004, 2015, and 2022 specifically.
- Economic Naturalist 26.5 deleted and subsequent Economic Naturalist examples renumbered.

Chapter 27
- Economic Naturalist 27.3 deleted and the subsequent Economic Naturalist example was renumbered accordingly.
- New Economic Naturalist 27.4, "Why did inflation return in the United States in 2021–2022?"
- Deleted Self-Test 27.9 and subsequent self-test questions renumbered accordingly.
- "The Supply of Money and Money Market Equilibrium" section was updated to reflect a limited-reserves regime.
- Extensive updates and reorganization made to "The Federal Reserve and Interest Rates: A Closer Look" section to include Post-2008 developments.

Chapter 28
- Updated data was added throughout the "Exchange Rates" section specifically.
- Economic Naturalist 28.5 updated with IMF data for Ukraine aid.
- Material on Greece's consideration to exit from the eurozone and its implications has been added to the Economic Naturalist 28.7.

A NOTE ON THE WRITING OF THIS EDITION

Ben Bernanke was sworn in on February 1, 2006, as chair and a member of the Board of Governors of the Federal Reserve System, a position to which he was reappointed in January 2010. From June 2005 until January 2006, he served as chair of the President's Council of Economic Advisers. These positions have allowed him to play an active role in making U.S. economic policy, but the rules of government service have restricted his ability to participate in the preparation of previous editions. Since his second term as chair of the Federal Reserve has completed, we are happy that Ben is actively involved in the revision of the macro portion of this edition.

EVERGREEN

Content and technology are ever-changing, and it is important that you can keep your course up to date with the latest information and assessments. That's why we want to deliver the most current and relevant content for your course, hassle-free.

Frank, Bernanke, Antonovics, and Heffetz *Principles of Economics* is moving to an Evergreen delivery model, which means it has content, tools, and technology that are updated and relevant, with updates delivered directly to your existing McGraw Hill Connect® course. Engage students and freshen up assignments with up-to-date coverage of select topics and assessments, all without having to switch editions or build a new course.

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- Refreshing and implementing inclusive content guidelines around topics including generalizations and stereotypes, gender, abilities/disabilities, race/ethnicity, sexual orientation, diversity of names, and age.
- Enhancing best practices in assessment creation to eliminate cultural, cognitive, and affective bias.
- Maintaining and continually updating a robust photo library of diverse images that reflect our student populations.
- Including more diverse voices in the development and review of our content.
- Strengthening art guidelines to improve accessibility by ensuring meaningful text and images are distinguishable and perceivable by users with limited color vision and moderately low vision.

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Brian C. Brush, *Marquette University*

Christopher Burkart, *University of West Florida*

Colleen Callahan, *American University*

Giuliana Campanelli Andreopoulos, *William Paterson University*

J. Lon Carlson, *Illinois State University*

David Chaplin, *Northwest Nazarene University*

Monica Cherry, *Saint John Fisher College*

Joni Charles, *Texas State University*

Anoshua Chaudhuri, *San Francisco State University*

Xudon Chen, *Baldwin Wallace University*

Nan-Ting Chou, *University of Louisville*

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Manabendra Dasgupta, *University of Alabama at Birmingham*

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Mark Frascatore, *Clarkson University*

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Seth Gershenson, *Michigan State University*

Amy D. Gibson, *Christopher Newport University*

Rajeev Goel, *Illinois State University*

Reginald Gray, *Dallas College Mountain View*

Mehdi Haririan, *Bloomsburg University of Pennsylvania*

Susan He, *Washington State University*

John Hejkal, *University of Iowa*

Kuang-Chung Hsu, *Kishwaukee College*

Greg Hunter, *California State University-Pomona*

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Nakul Kumar, *Northern Virginia Community College*

Sunita Kumari, *St. Petersburg College*

Valerie Lacarte, *American University*

Donald J. Liu, *University of Minnesota-Twin Cities*

Brian Lynch, *Lake Land College*

Christine Malakar, *Lorain Community College*

Ida Mirzaie, *The Ohio State University*

Steven Nafziger, *Williams College*

Codrin Nedita, *University of Washington Bothell*

Charles Newton, *Houston Community College*

Thuy Lan Nguyen, *Santa Clara University*

Alexandra Nica, *University of Iowa*

Jelena Nikolic, *Northeastern University*

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Stephanie Owings, *Fort Lewis College*

Dishant Pandya, *Spalding University*

Martin Pereyra, *University of Missouri*

Tony Pizelo, *Northwest University*

Ratha Ramoo, *Diablo Valley College*

Thomas Rhoads, *Towson University*

Bill Robinson, *University of Nevada-Las Vegas*

Brian Rosario, *University of California-Davis*

Elyce Rotella, *Indiana University*

Jeffrey Rubin, *Rutgers University*

Naveen Sarna, *Northern Virginia Community College*

Henry Schneider, *Queen's University*

Sumati Srinivas, *Radford University*

Thomas Stevens, *University of Massachusetts*

Carolyn Fabian Stumph, *Indiana University and Purdue University-Fort Wayne*

Albert Sumell, *Youngstown State University*

Markland Tuttle, *Sam Houston State University*

David Vera, *California State University-Fresno*

Nancy Virts, *California State University-Northridge*

Gilbert J. Werema, *Texas Woman's University*

Elizabeth Wheaton, *Southern Methodist University*

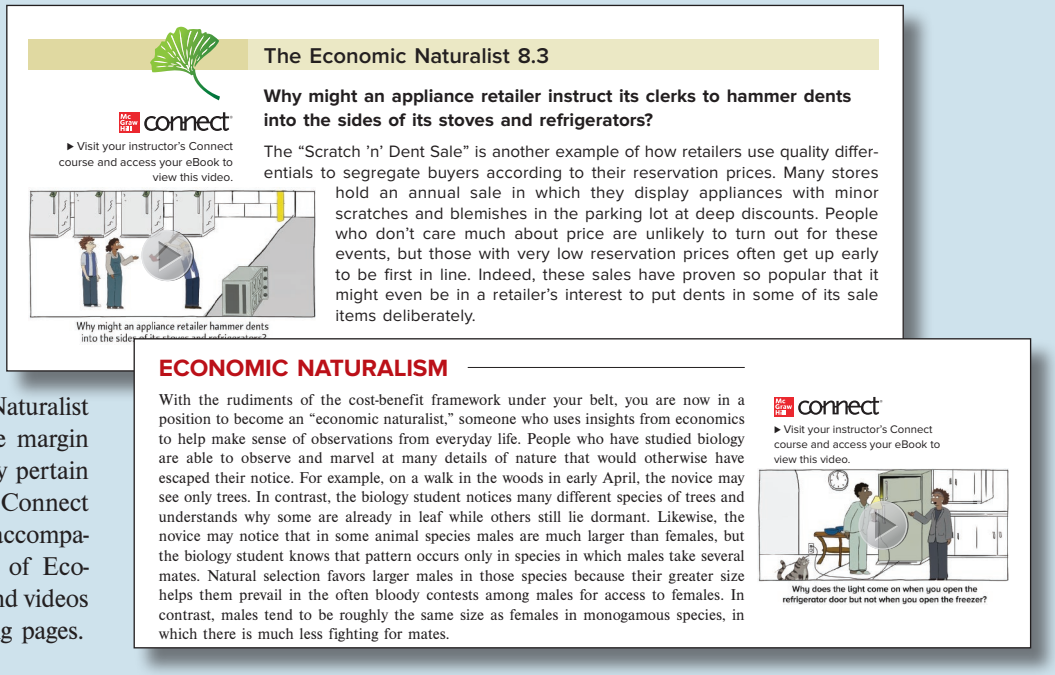
Amanda Wilsker, *Georgia Gwinnett College*

William C. Wood, *James Madison University*

DISTINGUISHING FEATURES

THE ECONOMIC NATURALIST EXAMPLES

Each Economic Naturalist example starts with a question to spark curiosity and interest in learning an answer. These examples fuel interest while teaching students to see economics in the world around them. Videos of select Economic Naturalist examples are denoted in the margin of the material to which they pertain and they are housed within Connect as assignable content with accompanying questions. A full list of Economic Naturalist examples and videos can be found in the following pages.



The Economic Naturalist 8.3

Why might an appliance retailer instruct its clerks to hammer dents into the sides of its stoves and refrigerators?

The "Scratch 'n' Dent Sale" is another example of how retailers use quality differentials to segregate buyers according to their reservation prices. Many stores hold an annual sale in which they display appliances with minor scratches and blemishes in the parking lot at deep discounts. People who don't care much about price are unlikely to turn out for these events, but those with very low reservation prices often get up early to be first in line. Indeed, these sales have proven so popular that it might even be in a retailer's interest to put dents in some of its sale items deliberately.

connect

▸ Visit your instructor's Connect course and access your eBook to view this video.

Why might an appliance retailer hammer dents into the sides of its stoves and refrigerators?

ECONOMIC NATURALISM

With the rudiments of the cost-benefit framework under your belt, you are now in a position to become an "economic naturalist," someone who uses insights from economics to help make sense of observations from everyday life. People who have studied biology are able to observe and marvel at many details of nature that would otherwise have escaped their notice. For example, on a walk in the woods in early April, the novice may see only trees. In contrast, the biology student notices many different species of trees and understands why some are already in leaf while others still lie dormant. Likewise, the novice may notice that in some animal species males are much larger than females, but the biology student knows that pattern occurs only in species in which males take several mates. Natural selection favors larger males in those species because their greater size helps them prevail in the often bloody contests among males for access to females. In contrast, males tend to be roughly the same size as females in monogamous species, in which there is much less fighting for mates.

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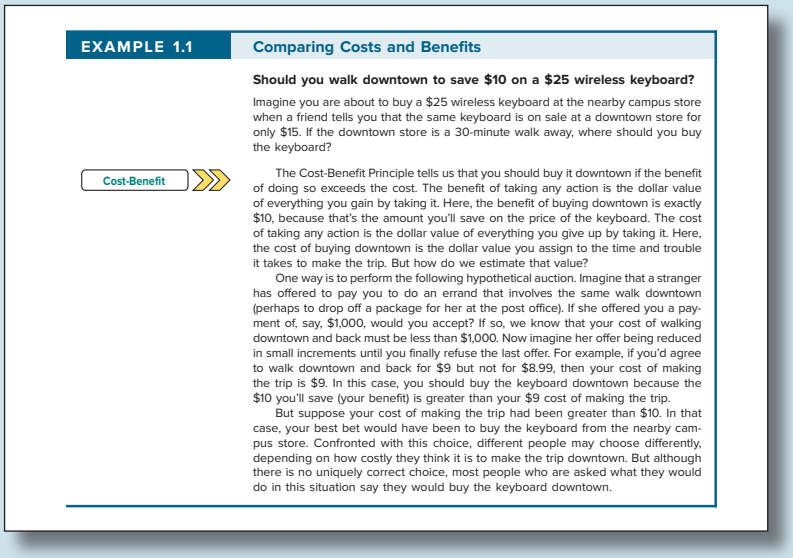
Why does the light come on when you open the refrigerator door but not when you open the freezer?

NUMBERED EXAMPLES

Throughout the text, numbered and titled examples are referenced and called out to further illustrate concepts. Our engaging questions and examples from everyday life highlight how each human action is the result of an implicit or explicit cost-benefit calculation.



EXAMPLE 1.1 **Comparing Costs and Benefits**

Should you walk downtown to save $10 on a $25 wireless keyboard?

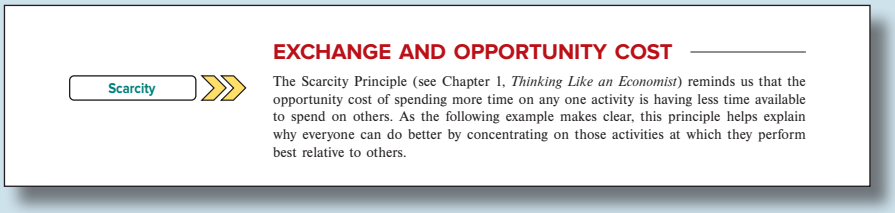
Imagine you are about to buy a $25 wireless keyboard at the nearby campus store when a friend tells you that the same keyboard is on sale at a downtown store for only $15. If the downtown store is a 30-minute walk away, where should you buy the keyboard?

Cost-Benefit

The Cost-Benefit Principle tells us that you should buy it downtown if the benefit of doing so exceeds the cost. The benefit of taking any action is the dollar value of everything you gain by taking it. Here, the benefit of buying downtown is exactly $10, because that's the amount you'll save on the price of the keyboard. The cost of taking any action is the dollar value of everything you give up by taking it. Here, the cost of buying downtown is the dollar value you assign to the time and trouble it takes to make the trip. But how do we estimate that value?

One way is to perform the following hypothetical auction. Imagine that a stranger has offered to pay you to do an errand that involves the same walk downtown (perhaps to drop off a package for her at the post office). If she offered you a payment of, say, $1,000, would you accept? If so, we know that your cost of walking downtown and back must be less than $1,000. Now imagine her offer being reduced in small increments until you finally refuse the last offer. For example, if you'd agree to walk downtown and back for $9 but not for $8.99, then your cost of making the trip is $9. In this case, you should buy the keyboard downtown because the $10 you'll save (your benefit) is greater than your $9 cost of making the trip.

But suppose your cost of making the trip had been greater than $10. In that case, your best bet would have been to buy the keyboard from the nearby campus store. Confronted with this choice, different people may choose differently, depending on how costly they think it is to make the trip downtown. But although there is no uniquely correct choice, most people who are asked what they would do in this situation say they would buy the keyboard downtown.



Scarcity

EXCHANGE AND OPPORTUNITY COST

The Scarcity Principle (see Chapter 1, *Thinking Like an Economist*) reminds us that the opportunity cost of spending more time on any one activity is having less time available to spend on others. As the following example makes clear, this principle helps explain why everyone can do better by concentrating on those activities at which they perform best relative to others.

CORE PRINCIPLES

There are seven Core Principles that we focus on to ensure student mastery. Throughout the text, these principles are called out and are denoted by an icon in the margin. Again, the seven Core Principles are: scarcity, cost-benefit, incentive, comparative advantage, increasing opportunity cost, efficiency, and equilibrium.

SELF-TESTS

These self-test questions in the body of the chapter enable students to determine whether the preceding material has been understood and reinforce understanding before reading further. Detailed answers to the self-test questions are found at the end of each chapter.

SELF-TEST 3.1

In Figure 3.1, what is the marginal buyer's reservation price when the quantity of pizza sold is 10,000 slices per day? For the same demand curve, what will be the quantity of pizza demanded at a price of $2.50 per slice?

RECAP

MARKET EQUILIBRIUM

Market equilibrium, the situation in which all buyers and sellers are satisfied with their respective quantities at the market price, occurs at the intersection of the supply and demand curves. The corresponding price and quantity are called the *equilibrium price* and the *equilibrium quantity*.

Unless prevented by regulation, prices and quantities are driven toward their equilibrium values by the actions of buyers and sellers. If the price is initially too high, so that there is excess supply, frustrated sellers will cut their price in order to sell more. If the price is initially too low, so that there is excess demand, competition among buyers drives the price upward. This process continues until equilibrium is reached.

RECAP

Sprinkled throughout each chapter are Recap boxes that underscore and summarize the importance of the preceding material and key concept takeaways.

WORKED PROBLEM VIDEOS

Brief videos work through end-of-chapter problems to aid in student understanding of core economic concepts and offer assistance with more challenging material. The videos are available as hints within Connect.

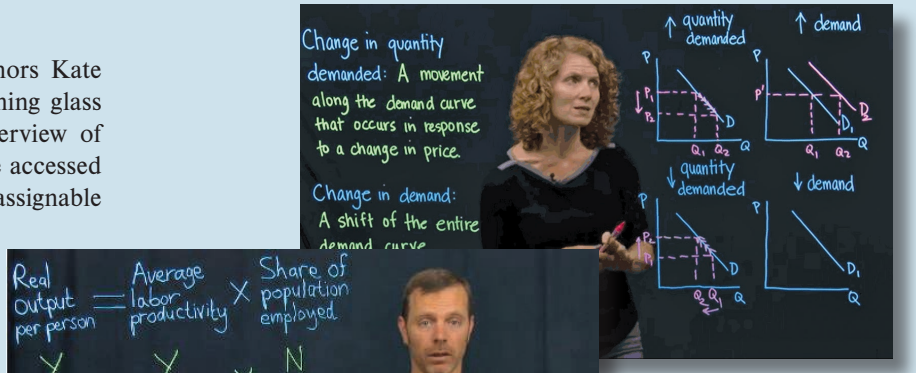
To earn extra money in the summer, you grow tomatoes and sell them at a local farmers' market for 30 cents per pound. By adding compost to your garden, you can increase your yield as shown in the table below. If compost costs 50 cents per pound and your goal is to make as much profit as possible, how many pounds of compost should you add?

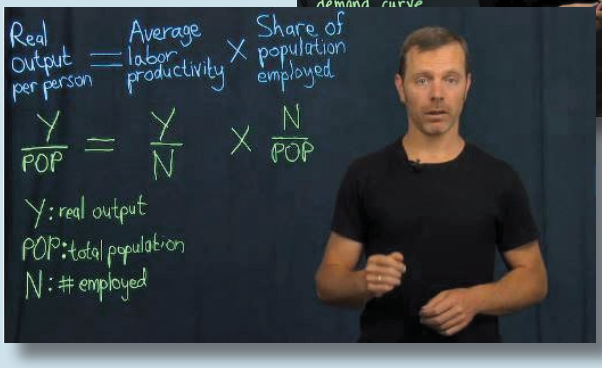
Additional cost (or marginal cost)

Pounds of compost	Pounds of tomatoes	Additional pounds of tomatoes	Additional revenue (or marginal benefit)
	100		
1	120	20	$6.00 ✓
2	125	5	$1.50 ✓
3	128		
4	130		
5	131		
6	131.5		

LEARNING GLASS VIDEOS

Dozens of lecture videos featuring authors Kate Antonovics and Ori Heffetz utilize learning glass technology to provide you with an overview of important concepts. These videos can be accessed as resources within SmartBook® or as assignable content with accompanying questions via Connect.





THE ECONOMIC NATURALIST VIDEO SERIES

Asymmetric Information: Why do "almost new" used cars sell for so much less than brand new ones?
Behavioral Economics: Why do real estate agents often show clients two nearly identical houses, even though one is both cheaper and in better condition than the other?
Commercial Banking: Why can it be more expensive to transfer funds between banks electronically than it is to send a check through the mail?
Comparative Advantage: iPhones: Designed in California, but assembled in China
Cost Benefit 1: Why does the light come on when you open the refrigerator door but not when you open the freezer?
Cost Benefit 2: Why are child safety seats required in automobiles but not in airplanes?
Discount Pricing: Why might an appliance retailer hammer dents into the sides of its stoves and refrigerators?
Economy Strength and Currency Value: Does a strong currency imply a strong economy?
Elasticity: Why do people buy the same amount of salt as before even when the price of salt doubles?
Human Capital: Why do almost all countries provide free education?
Incentive Problems and Inefficiency: Why does the practice of check splitting cause people to spend more at restaurants?
Inflation and Cost of Living: Do official inflation figures overstate actual increases in our living costs?
Inflation: Can inflation be too low?
Marginal Product of Labor: Why do female models earn so much more than male models?
Menu Costs: Will new technologies eliminate menu costs?
Money and Its Uses: Is there such a thing as private, or communicably traded, money?
Monopolistic Competition: Why do we often see convenience stores located on adjacent street corners?
Prisoner's Dilemma: Why do people shout at parties?
Production Costs: Why are brown eggs more expensive than white ones?
Saving: Why do American households save so little while Chinese households save so much?
Sources of Increasing Inequality: Why have the salaries of top earners been growing so much faster than everyone else's?
Supply and Demand: Why are rotisserie chickens less expensive than fresh chickens?
Tariffs: Why do consumers in the United States often pay more than double the world price for sugar?
The Demand for Money: Why does the average Argentine citizen hold more U.S. dollars than the average U.S. citizen?
The Invisible Hand: Why do supermarket checkout lines all tend to be roughly the same length?
The Law of Demand: Why are smaller automobile engines more common in Europe than in the United States?
The Optimal Amount of Information: Why might a patient be more likely to receive an expensive magnetic resonance imaging (MRI) exam for a sore knee if covered under a conventional health insurance rather than a health maintenance organization (HMO) plan?
The Tragedy of the Commons and Property Rights: Why do blackberries in public parks get picked before they're completely ripe?

THE ECONOMIC NATURALIST EXAMPLES

1.1 Why does an accident in the northbound lanes of a divided highway cause a traffic jam in the southbound lanes?
1.2 Why does check-splitting make the total restaurant bill higher?
1.3 Why do the keypad buttons on drive-up automated teller machines have Braille dots?
2.1 Where have all the .400 hitters gone?
2.2 What happened to the U.S. lead in the television market?
2.3 How will climate change affect wine-industry specialization?
2.4 If trade among nations is so beneficial, why are free-trade agreements so controversial?
2.5 Is PBS economics reporter Paul Solman's job a likely candidate for outsourcing?
3.1 When the federal government implements a large pay increase for its employees, why do rents for apartments located near Washington Metro stations go up relative to rents for apartments located far away from Metro stations?
3.2 Why do major term papers go through so many more revisions today than in the 1970s?
3.3 Why was there a shortage of toilet paper during the COVID-19 pandemic?
3.4 Why do the prices of some goods, like airline tickets to Europe, go up during the months of heaviest consumption, while others, like sweet corn, go down?
3.5 Why do physicians tend to overprescribe antibiotics?
4.1 Why was the luxury tax on yachts such a disaster?
4.2 Will a higher tax on cigarettes curb teenage smoking?
4.3 Why are gasoline prices so much more volatile than car prices?
5.1 Why does California experience chronic water shortages?
5.2 Why would Jeff Bezos live in a smaller house in Manhattan than in Medina, Washington?
5.3 Why did people turn to four-cylinder cars in the 1970s, only to shift back to six- and eight-cylinder cars in the 1990s?
5.4 Why are automobile engines smaller in England than in the United States?
5.5 Why are waiting lines longer in poorer neighborhoods?
6.1 When recycling is left to private market forces, why are many more aluminum beverage containers recycled than glass ones?
7.1 Why do supermarket checkout lines all tend to be roughly the same length?
7.2 Are there "too many" smart people working as corporate earnings forecasters?
8.1 Why does Intel sell more microprocessors used in personal computers than any other chipmaker?
8.2 Why do many movie theaters offer discount tickets to students?
8.3 Why might an appliance retailer instruct its clerks to hammer dents into the sides of its stoves and refrigerators?
9.1 Why are cartel agreements notoriously unstable?
9.2 How did Congress unwittingly solve the television advertising dilemma confronting cigarette producers?
9.3 Why do people shout at parties?
9.4 Why do we often see convenience stores located on adjacent street corners?
10.1 Why did the American Olympic swimmer Shirley Babashoff, who set one world record and six national records at the 1976 Olympics, refuse to appear on the cover of *Sports Illustrated*?
10.2 Why would people pay thousands of dollars to attend a weight-loss camp that will feed them only 1,500 calories per day?
10.3 Why was Obamacare difficult to enact and harder still to repeal?
10.4 Why have attempts to privatize Social Security proved so politically unpopular in the United States?
11.1 What is the purpose of free speech laws?
11.2 Why do many states have laws requiring students to be vaccinated against childhood illnesses?
11.3 Why does the government subsidize private property owners to plant trees on their hillsides?
11.4 Why do blackberries in public parks get picked too soon?
11.5 Why are shared milkshakes consumed too quickly?
11.6 Why do football players take anabolic steroids?
12.1 Why is finding a knowledgeable salesclerk often difficult?
12.2 Why did Rivergate Books, the last bookstore in Lambertville, New Jersey, go out of business?
12.3 Why do firms insert the phrase "As advertised on TV" when they advertise their products in magazines and social media?
12.4 Why do many companies care so much about elite educational credentials?
12.5 Why do many clients seem to prefer lawyers who wear expensive suits?
12.6 Why do males under 25 years of age pay more than other drivers for auto insurance?
12.7 Why do opponents of the death penalty often remain silent?
12.8 Why do proponents of legalized drugs remain silent?
13.1 If unionized firms have to pay more, how do they manage to survive in the face of competition from their nonunionized counterparts?
13.2 Why do some ad copywriters earn more than others?
13.3 Why does Taylor Swift earn many millions more than singers with only slightly less talent?
14.1 Why don't most married couples contribute equally to joint purchases?

14.2 Why do television networks favor *NFL Sunday Night Football* over *Masterpiece?*
15.1 What is the China trade shock?
15.2 Why did the United States impose tariffs on imports from China?
15.3 Why did the United States impose restrictions on exports to China?
17.1 Can nominal and real GDP ever move in different directions?
17.2 Why do people work fewer hours today than their great-grandparents did?
17.3 Why do far fewer children complete high school in poor countries than in rich countries?
18.1 Every few years, there is a well-publicized battle in Congress over whether the minimum wage should be raised. Why do these heated legislative debates recur so regularly?
19.1 Why did West Germany and Japan recover so successfully from the devastation of World War II?
19.2 Why did U.S. labor productivity grow so rapidly in the late 1990s?
19.3 Why did medieval China stagnate economically?
19.4 Why do almost all countries provide free public education?
20.1 Can new technology hurt workers?
20.2 How did the COVID-19 pandemic affect the demand for U.S. jobs?
21.1 How did many American households increase their wealth in recent decades while saving very little?
21.2 Why do Chinese households save so much?
21.3 Why do U.S. households save so little?
21.4 Why have real interest rates declined globally in recent decades?
22.1 From Ithaca Hours to Bitcoin: What is private money, communally created money, and open-source money?
22.2 Why did the banking panics of 1930–1933 reduce the national money supply?
23.1 What happens to national economies during banking crises?
23.2 Why did the U.S. stock market rise sharply and fall sharply in the 1990s and again in the 2000s?
23.3 Why is the U.S. trade deficit so large?
24.1 Do economic fluctuations affect presidential elections?
24.2 How was the 2020 recession called?
24.3 Why has the natural rate of unemployment in the United States declined?
24.4 Why did the Federal Reserve act to slow down the economy in 1999 and 2000?
25.1 Will new technologies eliminate menu costs?
25.2 How did the decline in U.S. stock market values from 2000 to 2002 affect consumption spending?
25.3 What caused the 2007–2009 recession in the United States?
25.4 Does military spending stimulate the economy?
25.5 Why did the federal government temporarily cut taxes in 2001, 2009, and 2020–2021?
26.1 Why do citizens in some foreign countries hold more U.S. dollars than many U.S. citizens?
26.2 How did the Fed respond to the recession and the terrorist attacks in 2001, to the recession and the global financial crisis in 2007–2008, and to the recession and the COVID-19 pandemic in 2020?
26.3 Why did the Fed begin tightening monetary policy in 2004, in 2015, and in 2022?
26.4 Why does news of inflation hurt the stock market?
26.5 What is the Taylor rule?
27.1 How did inflation get started in the United States in the 1960s?
27.2 Why did oil price increases cause U.S. inflation to escalate in the 1970s but not in the 2000s and 2010s?
27.3 How was inflation conquered in the 1980s?
27.4 Why did inflation return in the United States in 2021–2022?
27.5 Can inflation be too low?
28.1 Does a strong currency imply a strong economy?
28.2 What is a safe haven currency?
28.3 Why did the dollar appreciate nearly 50 percent in the first half of the 1980s and nearly 40 percent in the second half of the 1990s?
28.4 What were the causes and consequences of the East Asian crisis of 1997–1998?
28.5 What is the IMF, and how has its mission evolved over the years?
28.6 How did policy mistakes contribute to the Great Depression?
28.7 Why have 20 European countries adopted a common currency?

SUPPLEMENTS

The following ancillaries are available for quick download and convenient access via the Instructor Resource material available through McGraw Hill Connect®.

Solutions Manual

Prepared by the authors, this manual provides detailed answers to the end-of-chapter review questions and problems.

Test Bank

The test bank has been carefully revised and reviewed for accuracy. Thousands of questions have been categorized by chapter learning objectives, AACSB learning categories, Bloom's Taxonomy objectives, and level of difficulty.

Test Builder in Connect

Available within Connect, Test Builder is a cloud-based tool that enables instructors to format tests that can be printed or administered within an LMS. Test Builder offers a modern, streamlined interface for easy content configuration that matches course needs, without requiring a download.

Test Builder allows you to:

- access all test bank content from a particular title.
- easily pinpoint the most relevant content through robust filtering options.
- manipulate the order of questions or scramble questions and/or answers.
- pin questions to a specific location within a test.
- determine your preferred treatment of algorithmic questions.
- choose the layout and spacing.
- add instructions and configure default settings.

Test Builder provides a secure interface for better protection of content and allows for just-in-time updates to flow directly into assessments.

PowerPoints

Presentation slides contain a detailed, chapter-by-chapter review of the important ideas presented in the textbook, accompanied by animated graphs and slide notes. You can edit, print, or rearrange the slides to fit the needs of your course.

Customizable Micro Lecture Notes

One of the biggest hurdles to an instructor considering changing textbooks is the prospect of having to prepare new lecture notes and slides. For the microeconomics chapters, this hurdle no longer exists. A full set of lecture notes for *Principles of Microeconomics*, prepared by Bob Frank for his award-winning introductory microeconomics course at Cornell University, is available as Microsoft Word files that instructors are welcome to customize as they see fit. The challenge for any instructor is to reinforce the lessons of the text in lectures without generating student unrest by merely repeating what's in the book. These lecture notes address that challenge by constructing examples that run parallel to those presented in the book, yet are different from them in interesting contextual ways.

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Remote Proctoring & Browser-Locking Capabilities

New remote proctoring and browser-locking capabilities, hosted by Proctorio within Connect, provide control of the assessment environment by enabling security options and verifying the identity of the student.

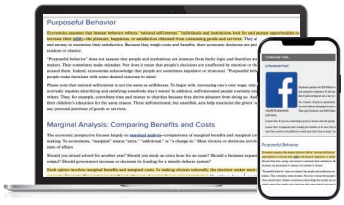
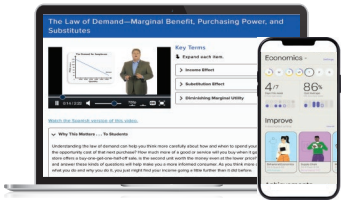
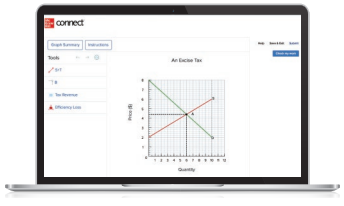
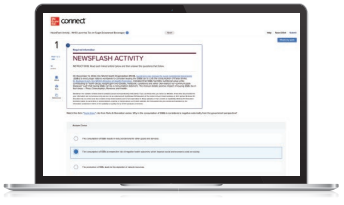
Seamlessly integrated within Connect, these services allow instructors to control students' assessment experience by restricting browser activity, recording students' activity, and verifying students are doing their own work.

Instant and detailed reporting gives instructors an at-a-glance view of potential academic integrity concerns, thereby avoiding personal bias and supporting evidence-based claims.

FOR MORE INFORMATION ABOUT CONNECT AND ITS AVAILABLE RESOURCES, REFER TO THE PAGES THAT FOLLOW.

Economics

McGraw Hill Connect Digital Solutions

Course Challenges	Connect Solutions
Student Preparedness 	**Adaptive Econ Prep: Math & Graphing** is designed for students to gain knowledge and build understanding of the basic math and graphing content they need to be successful in any principles course. The result? Modules provide students with a refresher of prerequisite content in an adaptive environment, personalizing the learning experience, leading to a greater level of preparedness. **SmartBook® 2.0** personalizes learning to individual student needs, continually adapting to pinpoint knowledge gaps and focus learning on concepts requiring additional study. For instructors, SmartBook tracks student progress and provides insights that guide teaching strategies and advanced instruction, for a more dynamic class experience. The result? An adaptive reading experience that has been made more personal, accessible, productive, and mobile that improves comprehension and builds student confidence. **The ReadAnywhere® App** is a free, downloadable app that allows your students to read their eBook anytime, anywhere or complete their SmartBook 2.0 assignments. Any notes or highlights they make in the eBook will sync across platforms. The result? Students are much more likely to have read the materials, completed their assignments, and be more prepared for class.
Personalized & Conceptualized Feedback 	**Adaptive Learning Assignment** provides each student a personalized path to learning concepts instructors assign in their course. The assignments continually adapt to the individual, identify knowledge gaps, and focus on areas where remediation is needed. All adaptive content—including questions and integrated concept resources—is specifically targeted and directly aligned with individual learning objectives. The result? Students gain targeted learning to help with their specific areas of need. **Sharpen** is a study app that highlights and emphasizes the key learning objectives most frequently assigned by faculty and most frequently missed by learners. The result? Sharpen provides students with vetted and credible supplemental resources that complement McGraw Hill Principles of Economics titles.
Math & Graphing Skills 	**Graphing Homework Exercises** go beyond the basics to apply and practice what students now know by demonstrating understanding through translating data and plotting points, shifting curves, calculating values, and identifying areas within graphs. The result? Learning is reinforced by applying knowledge to translating data and answering questions. **Interactive Graphs** help students visualize and interpret economic concepts, graphs, and real data. All graphs are accompanied by assignable assessment questions and feedback to guide students through the experience of learning to read and interpret graphs and data. The result? Interactive graphs provide a much easier way to teach complex topics in a visual way.
Perceived Course Relevance 	**New in Economics!* Newsflash Activities** assignable within Connect, students interact with relevant news articles and are graded on their ability to connect the content to key economics topics. The result? Students deepen their understanding of difficult concepts using content that is relevant to their everyday lives. **Application-Based Activities (ABA)** prepare students for the real-world through highly interactive, assignable exercises that boost engagement while providing immersive way to apply concepts learned to Economics-specific activities. The result? Students benefit from the application of multiple concepts, providing the ability to synthesize information and use critical-thinking skills to solve realistic scenarios.

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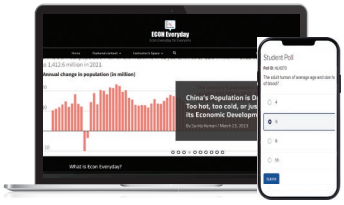

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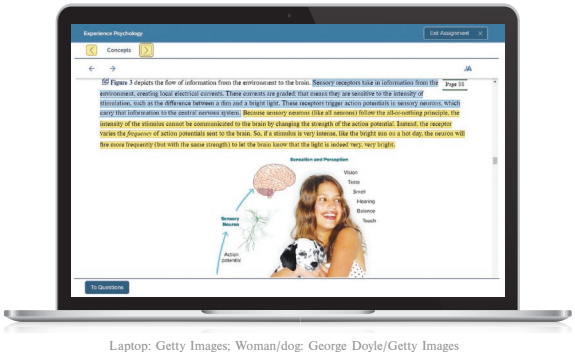

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Chapter Title	**Econ**	**Micro**	**Macro**	**Chapter Title**	**Streamlined 4e Econ**	**Streamlined 4e Micro**	**Streamlined 4e Macro**
Thinking Like an Economist	1	1	1	Thinking Like An Economist	1	1	1
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Elasticity	4	4		Demand and Elasticity	3	3	
Demand	5	5					
Perfectly Competitive Supply	6	6		Perfectly Competitive Supply	4	4	
Efficiency, Exchange, and the Invisible Hand in Action	7	7		Efficiency, Exchange, and the Invisible Hand in Action	5	5	
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Games and Strategic Behavior	9	9		Games and Strategic Behavior	7	7	
An Introduction to Behavioral Economics	10	10		An Introduction to Behavioral Economics (NEW)	8	8	
Externalities, Property Rights, and the Environment	11	11		Externalities and Property Rights	9	9	
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