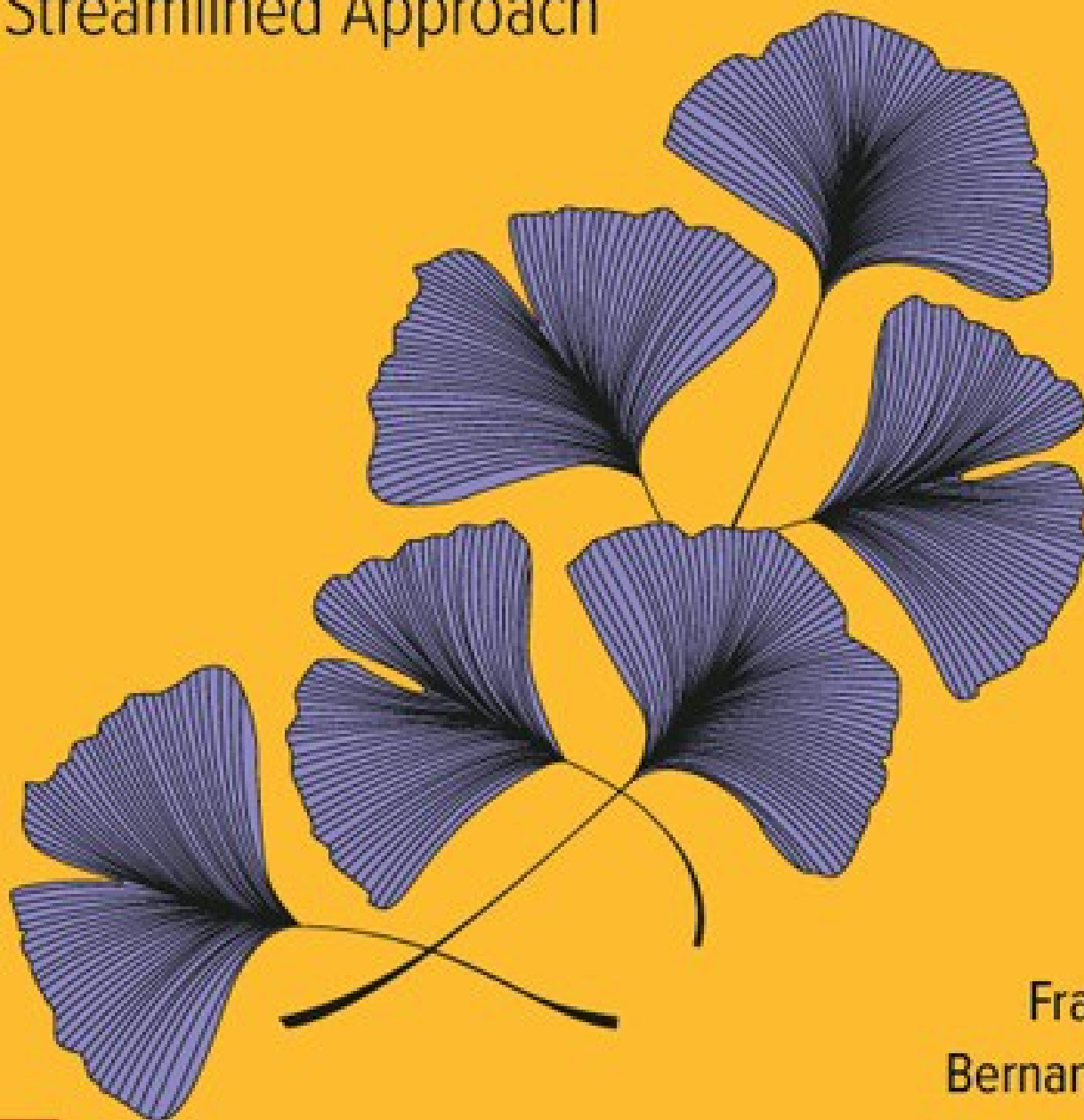


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fourth edition

Principles of Macroeconomics

A Streamlined Approach



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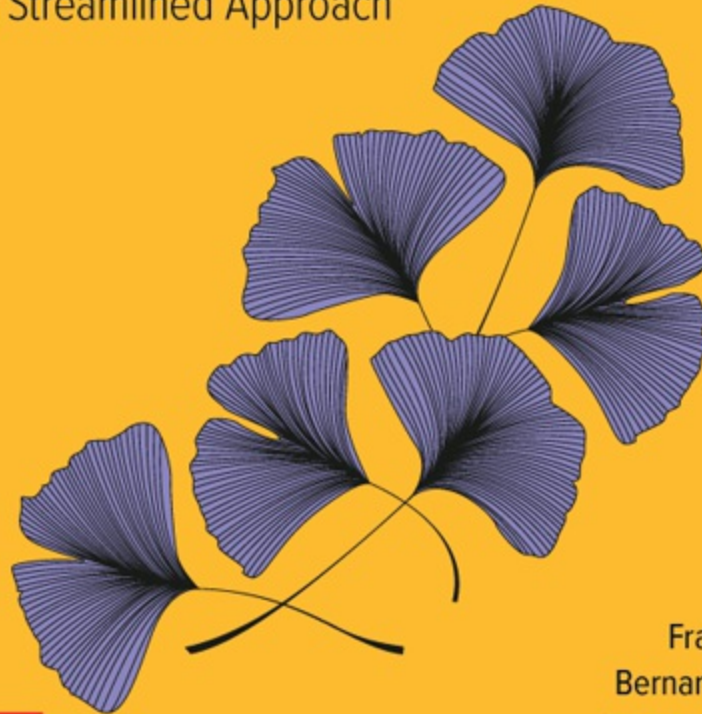
Frank
Bernanke
Antonovics
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A STREAMLINED APPROACH

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Principles of
MACROECONOMICS
A STREAMLINED APPROACH

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PRINCIPLES OF MACROECONOMICS: A STREAMLINED APPROACH

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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



©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'École des Hautes Études 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*, Tenth Edition (McGraw Hill, 2021). 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*, Ninth Edition (Addison-Wesley, 2017), 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 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 served as the 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 (N.J.) Board of Education.

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*.

PREFACE

A LESS IS MORE FOCUS

Our fourth streamlined edition 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 has produced levels of unemployment not seen since the Great Depression and has 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 upwards 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 page viii students will learn far more if we attempt to cover much less. Our basic premise is that a small number of basic ideas do most of the heavy lifting in economics, and that if we focus narrowly and repeatedly on those ideas, illustrating and applying them in numerous familiar contexts, 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. Our emphasis throughout is on active learning. We ask students to apply basic economic ideas themselves to answer related questions, exercises, and problems.

ADAPTING TO CLASSROOM TRENDS

Baumol’s cost disease refers to the tendency for costs to rise more rapidly for goods and services for which growth in labor productivity is either slow or nonexistent. It is thus no surprise that the cost of traditional methods of delivering classroom instruction has been rising so much faster than the cost of producing most manufactured goods.

Largely as a result of Baumol’s cost disease, tuition increases have far exceeded even the rapid growth in the cost of health care. This is what we would expect if the dominant teaching model remains as it was a century ago, in which a learned instructor stands in front of a class reciting truths cataloged in an assigned text. But as the late Herb Stein once remarked, “If something cannot go on forever, it will stop.” And so it is with rising tuitions. Universities are already facing strong pressure to moderate their rates of tuition growth, pressure that has been greatly exacerbated by the COVID-19 pandemic.

One result has been that much of the content that professors have traditionally delivered in live lecture will instead be delivered electronically. Indeed, technological advances have given today’s students an unparalleled ability to access information via the Internet, YouTube, and social media.

If early experience is any indication, the “flipped-classroom” model is one of the most promising adaptations to this new environment. In this approach, students are expected to study basic concepts before coming to class and then deepen their understanding of them through structured classroom exercises and discussion. The logic of the flipped classroom is compelling because under this approach, students have access to instructors precisely when

students are engaged in those activities that students find the most challenging (for example, problem solving and policy evaluation). Indeed, numerous studies have found that the flipped-classroom approach increases both student satisfaction and student learning.

A second adaptation, more pronounced in the wake of the COVID-19 lockdowns of March 2020, has been the move to remote instruction. The streamlined approach of this text is well suited for the goals of both the flipped-classroom and remote-instruction models. Rather than trying to bombard students with information they can easily access online, our book seeks to promote a deeper understanding of economics by focusing on core concepts. In addition, one of our central goals has been to create resources to help instructors promote student engagement outside the classroom. Some instructors may find these resources useful in completely overhauling the way they teach, while others may be interested in using them to make a few minor changes to their current courses.

In other words, this edition is intended to support a variety of teaching styles (and, indeed, our team of authors varies considerably in our pedagogical approach). The traditional approach has been to ask students to read the relevant sections from the textbook before coming to class. But instructors report that today's students are far less likely than their predecessors to complete such assignments. Stronger incentives can boost compliance. One effective approach assigns SmartBook chapters with adaptive questioning built in. Another administers brief tests at the start of class. These might involve two or three simple multiple-choice questions on the assigned material that are administered and graded electronically via audience response tools using smartphone apps.

Perhaps the biggest hurdle to effective implementation of the new teaching approaches has been a dearth of effective pre-class concept-delivery materials. To help fill this gap, we have created a library of short videos that focus on basic economic concepts. Many students have found these videos and animations engaging enough to watch even if they're not going to be tested on them, but we've also provided easily administered in-class questions that can boost compliance still further.

A big payoff in both the flipped-classroom and remote-instruction models comes from being able to use limited class time to discuss the concepts that students have studied before class. One approach begins by asking students to answer a multiple-choice question requiring application of a concept, and

then reporting the frequencies with which students selected the various multiple-choice options. Students are then given a few moments to discuss the question—either with their neighbors in traditional classroom settings, or with fellow students in Zoom breakout rooms—before having an opportunity to change the answers they originally submitted. Professors then call on students who’ve offered both correct and incorrect answers to the question to defend their answers to the class and lead the ensuing discussion. We’ve spent considerable effort drafting the kinds of questions that reliably provoke animated discussions of this sort.

In summary, here are the resources we have developed to support page ix the flipped-classroom and remote-instruction approaches, all available within McGraw Hill Connect® specific to the fourth edition:

Before Class (Exposure)

- **SmartBook® Adaptive Reading Assignments:** SmartBook contains the same content as the print book, but actively tailors that content to the needs of the individual through adaptive probing and integrated learning resources. Instructors can assign SmartBook reading assignments for points to create incentives for students to come to class prepared.
- **Learning Glass Lecture Videos:** A collection of brief instructional videos featuring the authors, Kate Antonovics and Ori Heffetz, utilize exciting 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 can be accessed as resources within SmartBook, or are available as stand-alone assignments within Connect.

In Class (Engagement)

- **Clicker Questions:** Classroom-tested by the authors, these multiple-choice questions are designed to facilitate discussion and group work in class.
- **Economic Naturalist Application-Focused Videos:** A known hallmark of this franchise, the Economic Naturalist examples are now available as an expanded set of short, engaging video vignettes within Connect and SmartBook.

After Class (Reinforcement)

- **Connect Exercises:** All end-of-chapter homework exercises are available to be assigned within Connect. Many of these exercises include algorithmic variations and require students to interact with the graphing and tool within the platform. **Worked Problem Videos**, available as hints within Connect, work through these problems to aid in student understanding of core economic concepts and offer assistance with more challenging material.
- **Test Bank Assessment:** Hundreds of multiple-choice questions are available for summative assessments of the chapter content. Select problems are now offered as an algorithmic alternative, providing even more variation.

All of the above assets can be implemented by instructors as preferred in order to satisfy as much or as little of the flipped-classroom approach as is desired.

KEY THEMES AND FEATURES

Economic Naturalism

Relying on examples drawn from familiar contexts, we encourage 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 text. Each one, we believe, poses a question that should make any curious person eager to learn the answer.

Our ultimate goal is to produce economic naturalists—people who see each human interaction 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 follow:

- Why does the average Argentine hold more U.S. dollars than the

average U.S. citizen?

- 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 an expanded video series based on 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-roisserie-chickens-cost-less-than-fresh-uncooked-chickens/>

Active Learning Stressed

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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 ideas to solve economic puzzles drawn from the real world.

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. Our less-is-more approach to topic coverage is also uniquely well suited to these new instructional approaches.

Cost-Benefit Focus

The cost-benefit principle, which tells us to take only those actions

- *whose benefits exceed their costs, is the core idea behind the economic way of thinking.* Introduced in Chapter 1 and employed repeatedly thereafter, this principle is more fully developed here than in any other text. It 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—that is, taking those actions whose benefits exceed their costs—facilitates the achievement of every goal we care about.
- 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 early in Chapter 1 and invoked repeatedly in subsequent chapters.

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 four-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 9–11) can be used before long-run material (Chapters 5–8) 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 page xi with an analysis of its effects on real wage inequality and progressing to such issues as the costs and benefits of trade, the role of capital flows in domestic capital formation, and the links between exchange rates and monetary policy.

CHANGES IN THE FOURTH EDITION

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 the rise of the gig economy. The examples, self-tests, and the end-of-chapter material from the previous edition have been redesigned to provide more clarity and ease of use. Data have been updated throughout.

Chapter-by-Chapter Changes

Chapter 1

- Updated student-centered examples, such as Netflix, wireless keyboards, dogwalking, and Jeff Bezos
- New and updated end-of-chapter problems that reinforce the chapter's learning objectives
- Updated appendix on working with equations, graphs, and tables based on electric scooter rentals

Chapter 2

- Updated student-centered examples, such as digital versus print ads and Marvel Studio films
- New Economic Naturalist, "Why was there a shortage of toilet paper during the COVID-19 pandemic?"
- Three new end-of-chapter questions that reinforce the chapter's learning objectives, including a question related to the drop in crude oil prices during the COVID-19 pandemic

Chapter 3

- Updated discussion of growth that reflects higher Internet and cell phone penetration
- Updated discussion of recessions and expansions that mentions the COVID-19 economic disruptions

Chapter 4

- Updated discussion of the correlation between per capita GDP and health outcomes such as life expectancy that now mentions that within high-income countries, the relationship can even reverse, with examples of data from the U.S., Canada, and Japan
- Updated discussion of the development of real wages for production workers and for highly paid baseball players over time that is now linked together, in the context of a new discussion about increasing wage inequalities between the highest- and lowest-paid U.S. workers

Chapter 5

- Updated examples, data, and figures

Chapter 6

- Clarification throughout the chapter of the difference between trends in average incomes and trends in income inequality
- Updated discussion of globalization that now includes recent developments, including the political opposition to the Trans-Pacific Partnership trade agreement and the Trump administration's resistance to increased economic integration of the U.S. with China
- New Economic Naturalist, "Can new technology hurt workers?" that includes what was previously a paragraph on workers' resistance to new technology (with anecdotes on Ned Ludd and the tale of John Henry); the new EN highlights workers' concerns about automation, robotics, and artificial intelligence (AI)
- New Economic Naturalist, "How did the COVID-19 pandemic affect the demand for U.S. jobs?" that discusses the different effects the pandemic is having on different jobs in different sectors
- New discussion of European labor markets that highlights the

deregulation in southern Europe following the global financial crisis and that, on some metrics, Europe's labor market does better than the U.S. labor market

Chapter 7

- Updates related to the COVID-19 economic downturn that include the discussion of U.S. household saving early in the chapter and the discussion of the U.S. government deficit later in the chapter
- New Economic Naturalist, “Why have real interest rates declined globally in recent decades?” that discusses the combination of higher global saving and lower global investment that helps explain the downward trend in real interest rates

Chapter 8

- New discussion of the Fed's role in stabilizing financial markets and as lender of last resort, which took center stage in recent episodes of financial panic; the discussion covers Section 13(3) landing during the 2008 and 2020 crises
- Updates related to recent U.S.-China trade frictions, in the discussion of the saving rate and the trade deficit
- Updates related to the COVID-19 pandemic and financial markets

Chapter 9

- Updates related to the COVID-19 downturn
- Revised Economic Naturalist 9.3 that includes discussion of the page xii gig economy in the context of the natural rate of unemployment in the U.S.
- Revised Economic Naturalist 9.5 that discusses the U.S. government's response to the COVID-19 pandemic and covers details of the Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020 and their economic rationale
- Other COVID-19-related updates

Chapter 10

- Updates related to COVID-19: in the context of banks' excess reserves, in the context of the Fed's quick cuts of the federal funds rate, in the

context of quantitative easing (QE) and the Fed’s special landing in 2020, and in the context of the Fed’s return to forward guidance in 2020; the chapter highlights the unprecedented speed and severity of the pandemic’s economic hit, and therefore the unprecedented speed and size of the policy response

- Revisions throughout the chapter that reflect recent developments in thinking about QE, forward guidance, and other methods; when introduced in 2008, these methods were viewed as “unconventional” and “temporary”; the chapter now observes that such methods are increasingly recognized as a “new normal”

Chapter 11

page xiii

- Updates to Economic Naturalist 11.5 to cover the Fed’s unprecedented response to COVID-19
- Updated the chapter title to accurately reflect chapter coverage

Chapter 12

- Updated student-centered examples, such as interior designer Kelly Wearstler
- Revised Economic Naturalist that discusses the U.S.-China trade war that started in 2018, highlighting that there is more to trade than the exchange of goods and services and its supply and demand analysis in this chapter; also covers issues such as intellectual property and national security.

Chapter 13

- New Economic Naturalist, “What is a safe haven currency?” (such as the U.S. dollar, the Swiss franc, and the Japanese yen), and how currencies tend to appreciate in periods of uncertainty; includes specific examples from the 2008 global financial crisis and the 2020 global COVID-19 crisis
- Updated Economic Naturalist 13.5 that covers the IMF’s COVID-19-related landing in early 2020

ORGANIZED LEARNING IN THE FOURTH EDITION

Chapter Learning Objectives

Students and professors can be confident that the organization of each chapter surrounds common themes outlined by four to seven learning objectives listed on the first page of each chapter. These objectives, along with AACSB and Bloom's Taxonomy Learning Categories, are connected to all test bank questions and end-of-chapter material to offer a comprehensive, thorough teaching and learning experience. Reports available within Connect allow instructors to easily output data related to student performance across chapter learning objectives, AACSB criteria, and Bloom's Taxonomy Learning Categories.

Assurance of Learning Ready

Many educational institutions today are focused on the notion of assurance of learning, an important element of some accreditation standards. *Principles of Macroeconomics, A Streamlined Approach, 4/e*, is designed specifically to support your assurance of learning initiatives with a simple, yet powerful, solution. Instructors can use Connect to easily query for learning objectives that directly relate to the objectives of the course and then use the reporting features of Connect to aggregate student results in a similar fashion, making the collection and presentation of assurance of learning data simple and easy.

AACSB Statement

The McGraw Hill Companies is a proud corporate member of AACSB International. Recognizing the importance and value of AACSB accreditation, the authors of *Principles of Macroeconomics, A Streamlined Approach, 4/e*, have sought to recognize the curricula guidelines detailed in AACSB standards for business accreditation by connecting questions in the test bank and end-of-chapter material to the general knowledge and skill guidelines found in AACSB standards.

It is important to note that the statements contained in *Principles of Economics, A Streamlined Approach, 4/e*, are provided only as a guide for the users of this text.

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 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 to share that Ben is actively involved in the revision of the macro portion of this edition.

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