



# PREFACE

**A**lthough 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 economic 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.

The problem, in our view, is that these courses almost always 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. Many instructors ask themselves, “How much can I cover today?” when instead they should be asking, “How much can my students absorb?”

Our textbook grew out of 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 our first two editions affirm the validity of this premise. Although recent editions of a few other texts now pay lip service to the less-is-more approach, ours is by consensus the most carefully thought-out and well-executed text in this mold. Avoiding excessive reliance on formal mathematical derivations, we present concepts intuitively through examples drawn from familiar contexts. We rely throughout on a well-articulated short list of 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.

Throughout this process, 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 book. Each one, we believe, poses a question that should make any normal, 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 an implicit or explicit cost-benefit calculation. Students talk about these examples with their friends and families. Learning economics is like learning a language. In each case, there is no substitute for actually speaking. By inducing students to speak economics, the economic naturalist examples serve this purpose.

## FEATURES

- **An emphasis on core principles:** As noted, a few core principles do most of the work in economics. By focusing almost exclusively on these principles, the text assures 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.

- **The Scarcity Principle:** Having more of one good thing usually means having less of another.
- **The Cost-Benefit Principle:** Take no action unless its marginal benefit is at least as great as its marginal cost.
- **The Incentive Principle:** Cost-benefit comparisons are relevant not only for identifying the decisions that rational people should make, but also for predicting the actual decisions they do make.
- **The Principle of Comparative Advantage:** Everyone does best when each concentrates on the activity for which he or she is relatively most productive.
- **The Principle of Increasing Opportunity Cost:** Use the resources with the lowest opportunity cost before turning to those with higher opportunity costs.
- **The Equilibrium Principle:** A market in equilibrium leaves no unexploited opportunities for individuals but may not exploit all gains achievable through collective action.
- **The Efficiency Principle:** Efficiency is an important social goal, because when the economic pie grows larger, everyone can have a larger slice.
- **Economic naturalism introduced in Micro:** 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:
  - Why are whales and elephants, but not chickens, threatened with extinction?
  - 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?
- **Economic naturalism expanded in Macro:** Economic naturalist examples typically invoke a more aggregative perspective in macroeconomics, but still entail explicit or implicit cost-benefit calculations. In macro, for example, the economic naturalist might ask questions like these:
  - Why did the Federal Reserve lower interest rates in 2001–2003 and then raise them in 2004–2005?
  - Will China become the world’s largest economy?
  - Why has U.S. labor productivity grown so rapidly since 1995?
- **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 exercises 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 core concepts. Experience with our first two editions confirms that this approach really does prepare students to apply basic economic principles to solve economic puzzles drawn from the real world.



- **Modern Microeconomics:** *Economic surplus*, introduced in Chapter 1 and employed repeatedly thereafter, 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. *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.

There is perhaps no more exciting toolkit for the economic naturalist than a few *principles of elementary game theory*. In Chapter 11, we show how these principles enable students to answer a variety of strategic questions that arise in the marketplace and everyday life. We believe that the insights of the Nobel Laureate *Ronald Coase* are indispensable for understanding a host of familiar laws, customs, and social norms. In Chapter 12 we show how such devices function to minimize misallocations that result from externalities. A few simple principles from the *economics of information* form another exciting addition to the economic naturalist's toolkit. In Chapter 13 we show the insights that earned the 2001 Nobel Prize in economics for George Akerlof, Joseph Stiglitz, and Michael Spence can be employed to answer a variety of questions from everyday experience.

- **Modern Macroeconomics:** Recent developments 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 prior to an analysis of short-run fluctuations, followed by a modern treatment of short-term fluctuations and stabilization policy, emphasizing the important distinction between short- and long-run behavior of the economy.
  - Consistent with both media reporting and recent research on the central bank reaction function, we treat the interest rate rather than the money supply as the primary instrument of Fed policy.
  - 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.
  - 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 benefits of 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.
- **Web site:** Developed by Scott Simkins of North Carolina A & T State University, an expert in the growing field of economics education on the World Wide Web. The ambitious Web site contains a host of features that will enhance the principles classroom, including dynamic graphs, video lectures, e-mail updates, microeconomic experiments, current news articles, information about the text, an eLearning session, and more.





## IMPROVEMENTS

That our less-is-more approach is well-suited for a wide spectrum of institutions is evidenced by the breadth of our earlier adoptions lists. Yet it remains a formidable challenge for any single book to fit the needs and capabilities of students across these diverse institutions. Some students arrive with AP credit in advanced calculus, while others still lack confidence in basic geometry and algebra. Guided by extensive reviewer feedback, our main goal in preparing our third edition has been to reorganize our presentation to accommodate the broadest possible range of student preparation. For example, while continuing to emphasize verbal and graphical approaches in the main text, we have added several appendices that offer more detailed and challenging algebraic treatments of the same material. And although we continue to believe that the indifference curve approach to the consumer choice problem is in general best postponed until an intermediate course, we have added a comprehensive indifference curve appendix for our many adopters who feel their students would benefit from that option. Among the hundreds of specific refinements we made, the following merit explicit mention.

## IN MICROECONOMICS

- **“Incentives matter” is a new core principle:** If we asked a thousand economists to provide their own versions of the most important economic principles, we’d get a thousand different lists. Yet to dwell on their differences would be to miss their essential similarities. It is less important to have exactly the best short list of principles than it is to use some well-thought-out list of this sort. New to our short list is the “incentives matter” principle, which we added to emphasize that cost-benefit comparisons are relevant not only for identifying the decisions that rational people should make, but also for predicting the actual decisions they do make across numerous diverse domains.
- **International trade chapter moved forward:** Because the topic is so important, the chapter on international trade (Chapter 16 in our second edition) has been moved forward to appear at the end of Part 2 (Competition and the Invisible Hand). This chapter (now Chapter 9) has been extensively rewritten to incorporate explicit analysis of how producer and consumer surplus are affected by trade and by policies such as tariffs and quotas. A new section addresses the question of which jobs are most vulnerable to outsourcing.
- **More emphasis on monopolistic competition and oligopoly:** In our second edition, the chapter on imperfect competition (Chapter 9 in that edition) briefly defined the three forms of imperfect competition and then focused exclusively on pure monopoly. In this edition, we have added more detailed descriptive accounts of monopolistic competition and oligopoly to this chapter (now Chapter 10). We also have added numerous additional examples involving these industry structures in the succeeding chapter on strategic choice (now Chapter 11).
- **Added material on indifference curves:** In our second edition, we offered an appendix on the indifference curve approach to the consumer choice problem on the text Web site. But because a number of reviewers felt strongly that this material should be more accessible for those who want to use it, we’ve added it as an extensively revised appendix to Chapter 5. This topic can be skipped at no compromise to the material in the succeeding chapters.
- **Algebra appendixes added:** To the basic review of the algebra and geometry of straight lines presented in the mathematical appendix to Chapter 1, we have

added a basic primer on how to solve simple systems of two equations with two unknowns. In this edition, the treatment of supply and demand in the main text is carried out exclusively in verbal and graphical terms. But we have added an appendix to Chapter 3 that presents an algebraic treatment of supply and demand. We also have added a brief appendix to Chapter 9, portraying the supply-and-demand model of international trade in algebraic form, and another brief appendix to Chapter 10, showing how monopoly profit maximization can be treated in an algebraic framework.

- **Additional Economic Naturalist drawings:** For reasons best explained by educational psychologists, illustrations can be an enormously effective pedagogical tool, in part because of their ability to trigger rich networks of cognitive association. To exploit this tool more effectively, we commissioned line drawings by the renowned *New Yorker* cartoonist Mick Stevens and other artists to accompany many of the Economic Naturalist examples. For this edition, almost all of the Economic Naturalist examples are accompanied by such drawings.



If free trade is so great, why do so many people oppose it?

## IN MACROECONOMICS

- **Expanded discussion of macroeconomic policy:** The revised monetary policy reaction function we introduce in Chapter 27 is a more realistic description of the way in which the Fed actually conducts monetary policy and clarifies the Taylor rule. In Chapter 28 we use this policy reaction function to help students distinguish between a move along the aggregate demand curve and a shift in the aggregate demand curve resulting from a change in monetary policy. Then, in a new, optional Chapter 29, we provide a more complete analysis of the interaction between fiscal and monetary policy, illustrating the crucial role of the central bank in any long-run inflation. We also discuss how enhanced credibility can help to anchor inflationary expectations and explain the contributions of central bank independence, inflation targeting, and central bank reputation. In the last section of Chapter 29, we expand our discussion of the real-world difficulties in conducting macroeconomic policy.
- **More patient presentation of models:** In Chapter 26 we explain the effects of tax cuts on planned aggregate expenditure more carefully. In an optional box, we also solve a simple Keynesian model, leaving the full model in the appendix, as in the second edition. In the diagrams in Chapter 28, we include the transitional short-run aggregate supply lines to illustrate how the short-run aggregate supply line shifts when actual output deviates from potential output.
- **Expanded discussion of supply-side economics:** Most economists agree that changes in marginal tax rates can affect both aggregate demand and aggregate supply, but they disagree on the size of the effects. In Chapter 28 we describe this controversy in greater detail and present both the theoretical and empirical evidence of the effects of changes in marginal tax rates on aggregate supply.
- **Greater attention to asset prices:** In Chapter 21 we provide a clearer explanation of the inverse relationship between bond prices and interest rates. We also discuss the effects of changes in asset prices (especially stocks and houses) on aggregate demand.
- **Simpler presentation of exchange rates:** We use supply and demand curves to illustrate the determination of nominal exchange rates before we introduce the real exchange rate and purchasing power parity.



- **Additional material on China:** At its current rate of growth, the Chinese economy may become the largest economy in the world within the next generation. In this edition, we expand our discussion of China in the world economy. We discuss the determinants of its success and its management of its exchange rate.
- **New material on the acceleration of productivity growth:** The productivity slowdown of 1973–1995 has been followed by surprisingly strong productivity growth. We present and discuss the reasons for this acceleration.
- **Updated discussion of saving and investment:** In addition to emphasizing the importance of public and private saving and the relationship between the budget deficit, national saving, and capital flows, we discuss the recently divergent trends in business and household saving.

## THE CHALLENGE

The world is a more competitive place now than it was when we started teaching in the 1970s. In arena after arena, business as usual is no longer good enough. Baseball players used to drink beer and go fishing during the off season, but they now lift weights and ride exercise bicycles. Assistant professors used to work on their houses on weekends, but the current crop can now be found most weekends at the office. The competition for student attention has grown similarly more intense. There are many tempting courses in the typical college curriculum and even more tempting diversions outside the classroom. Students are freer than ever to pick and choose.

Yet many of us seem to operate under the illusion that most freshmen arrive with a burning desire to become economics majors. And many of us do not yet seem to have recognized that students' cognitive abilities and powers of concentration are scarce resources. To hold our ground, we must become not only more selective in what we teach, but also more effective as advocates for our discipline. We must persuade students that we offer something of value.

A well-conceived and well-executed introductory course in economics can teach our students more about society and human behavior in a single term than virtually any other course in the university. This course can and should be an intellectual adventure of the first order. Not all students who take the kind of course we envisioned when writing this book will go on to become economics majors, of course. But many will, and even those who do not will leave with a sense of admiration for the power of economic ideas.

A salesperson knows that he or she often gets only one chance to make a good first impression on a potential customer. Analogously, the principles course is often our only shot at persuading most students to appreciate the value of economics. By trying to teach them everything we know—rather than teaching them the most important things we know—we too often squander this opportunity.

## SUPPLEMENTS FOR THE INSTRUCTOR

**Instructor's Manual:** Prepared by Margaret Ray at the University of Mary Washington [micro] and Mary Lesser at Iona College [macro], this expanded manual will be extremely useful for all teachers, but especially for those new to the job. In addition to such general topics as Using the Web Site, Economic Education Resources, and Innovative Ideas, there will be for each chapter: An Overview, Core Principles, Important Concepts Covered,



Teaching Objectives, Teaching Tips/Student Stumbling Blocks, More Economic Naturalists, In-Class and Web Activities, Annotated Chapter Outline, Answers to Textbook Problems, Sample Homework, and a Sample Reading Quiz.

**Test Banks:** Prepared by Kate Krause at the University of New Mexico [micro] and Nancy Jianakoplos at Colorado State University [macro], each manual contains more than 3,000 multiple-choice questions categorized by Teaching Objective (from the Study Guide); Learning Level (knowledge, comprehension, application, analysis); Type (graph, calculation, word problem); and Source (textbook, Study Guide, Web, unique).

**Computerized Test Banks:** The print test banks are also available in the latest EZTest test-generating software—micro and macro—ensuring maximum flexibility in test preparation, including the reconfiguring of graphing exercises. EZTest is the gold standard of testing programs. It is available in both a Windows and Macintosh format.

**PowerPoints:** Prepared by Steve Smith and Jeff Caldwell at Rose State, these slides—micro and macro—contain all of the illustrations in the textbook, along with a detailed, chapter-by-chapter review of the important ideas presented in the textbook. These teachers have done PowerPoints for many books at both the principles and intermediate level.

**Customizable Micro Lecture Notes and PowerPoints:** 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. Also available is a complete set of richly illustrated PowerPoint files to accompany these lecture notes. Instructors are also welcome to customize these files as they wish.

**Overhead Transparencies:** These more than 250, four-color acetates contain all the illustrations presented in the textbook. They are available, on demand, in micro and macro packages.

**Instructor's CD-ROM:** This remarkable Windows software program contains the complete Instructor's Manual, Computerized Test Banks, PowerPoints, and a full set of lecture notes and accompanying PowerPoint files for principles of microeconomics (see more detailed description above).

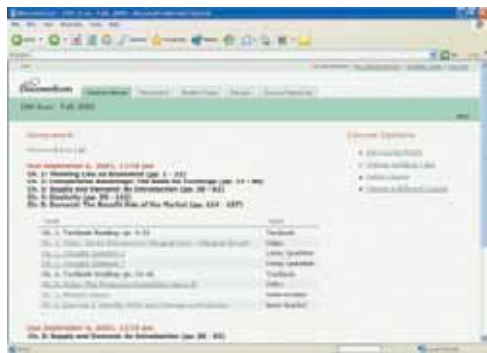
**Online Learning Center ([www.mhhe.com/economics/frankbernanke3](http://www.mhhe.com/economics/frankbernanke3)):** For teachers there are, among other things, an online newsletter called "Teaching Using the Web"; the Instructor's Manual; the PowerPoints; Economics on the Web, an annotated set of URLs/links to sites of interest to economists; a graphing library; along with a description of what's on the student site and some Optional Material from the book.



## SUPPLEMENTS FOR THE STUDENT

**Study Guide:** Written by Jack Mogab at Southwest Texas State University and Louis Johnston at the College of St. Benedict/St. Johns University, this book provides the following elements for each chapter: a Pretest; a Learning Objective Grid; a Key Point Review with Learning Tips; some Self-Tests (Key Term Matching, Multiple Choice, Problems) with answers; and an extension of the guide to the Web site, where students may practice with graphing.

**Online Learning Center** ([www.mhhe.com/economics/frankbernanke3](http://www.mhhe.com/economics/frankbernanke3)): For students there are such useful and exciting features for the book as a whole as Interpreting the News—articles and summaries of relevant articles with analysis and discussion questions; a Math Tutor—help for those whose math skills are rusty; e-mail Updates—periodic sending of information/study tips; the Glossary from the textbook; and Economics on the Web—annotated URLs useful for economics students. Additionally, for each chapter there is an Electronic Learning Session that opens with a brief recap of the chapter, is then followed by a test with answers and analysis; and is followed by a set of study sessions based on Economic Naturalist Exercises; Graphing Exercises; PowerPoints; and Key Terms; this is finally followed by a second quiz, with answers and analysis.

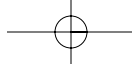


**DiscoverEcon with Paul Solman Videos:** A video and software program, the DiscoverEcon student online tutorial, available at [www.discoverecon.com/frankbernanke3](http://www.discoverecon.com/frankbernanke3), is provided with every new copy of the third edition text. Developed by Gerald C. Nelson of the University of Illinois at Urbana-Champaign, this fully updated and enhanced version of DiscoverEcon with Paul Solman Videos features new learning opportunities for students and easy integration into existing courses for the instructor. The syllabus development tool allows instructors to create interactive syllabi by linking DiscoverEcon exercises, special Web sites, and Solman Videos to their class syllabus and includes prefabricated syllabi to aid in course creation.

Students submit exercise results directly to their instructors using the e-submission function. Multiple-choice and match-the-terms exercises are automatically graded and scores added to the grade book. DiscoverEcon provides teachers with easy-to-use course management options and pedagogically sound, self-grading exercises for homework assignments.

The software acts like an interactive text; software chapters parallel text chapters and software pages include specific page references to the text. All DiscoverEcon chapters contain a multiple-choice quiz, discussion questions with online links, and match-the-terms exercises. Interactive graphs, animated charts, and live tables let students manipulate variables and study the outcomes. The program provides links to videos created by Paul Solman of *The NewsHour with Jim Lehrer*. This video component consists of more than 30 short video segments. Each 5- to 10-minute video explains a key economic idea such as economic growth, elasticity, and production possibilities in a memorable, accessible way. Access to DiscoverEcon with Paul Solman Videos is available online, via a password code card supplied with each new text.

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## A NOTE ON THE WRITING OF THIS EDITION

For two-and-a-half years, Ben Bernanke served as a member of the Board of Governors of the Federal Reserve System, and he has recently been appointed as chairman 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 the third edition.

Fortunately, we were able to enlist the aid of Roger Kaufman of Smith College to take the lead in revising the macro portions of the book. Roger, who is a long-time user of the book and a superb teacher, brings extensive classroom experience to the project. He has done an excellent job of updating the book to reflect the most important recent developments in the world economy. Pedagogically, he has made the book more student-friendly and the presentation more patient, while retaining the book's underlying approach and strengths. Ben Bernanke and Robert Frank express their deep gratitude to Roger for the energy and creativity he has brought to his work on the book. He has made the book a better tool for students and professors.

## ACKNOWLEDGMENTS

Our thanks first and foremost go to our publisher, Gary Burke, for his unwavering faith in our project since its inception. In an industry known for sticking with proven formulas, he has been willing from the outset to gamble that the market will embrace our somewhat unorthodox vision. Without his support and encouragement, we never could have produced this book. Tom Thompson, our development editor, was enormously helpful as he guided us with intelligence, patience, and tact through three major revisions of the original manuscript, and further extensive revisions for the second and third editions. We thank Paul Shensa, the sponsoring editor, whose considerable experience, insightful suggestions, and extensive knowledge of the marketplace were of great help. We also thank Marty Quinn, our creative marketing manager, for helping to get the message into the wider world. We are especially grateful to Betty Morgan, our superb manuscript editor. And we are also grateful to the production team, whose professionalism was outstanding: Susanne Riedell, Project Manager; Matthew Baldwin, Designer; Michael McCormick, Production Supervisor; Lori Kramer, Photo Research Coordinator; Carol Loreth, Supplement Producer; Becky Szura, Media Project Manager; and Jennifer Fisher, Media Producer.



Finally, our sincere thanks to the following teachers and colleagues, whose thorough reviews and thoughtful suggestions led to innumerable substantive improvements.

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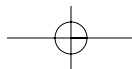
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