Macroeconomics

Principles, Problems, and Policies

Nineteenth Edition

Instructor's Edition

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University of Nebraska

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Pacific Lutheran University

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MACROECONOMICS: PRINCIPLES, PROBLEMS, AND POLICIES

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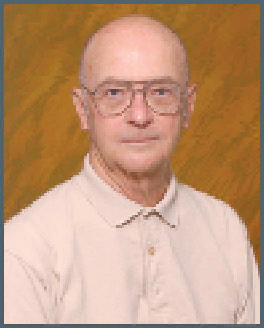
To **Mem** and to **Terri** and **Craig**, and to **past instructors**

About the Authors



CAMPBELL R. MCCONNELL earned his Ph.D. from the University of Iowa after receiving degrees from Cornell College and the University of Illinois. He taught at the University of Nebraska–Lincoln from 1953 until his retirement in 1990. He is also coauthor of *Contemporary Labor Economics*, ninth edition; *Essentials of Economics*, second edition; *Macroeconomics: Brief Edition;* and *Microeconomics: Brief Edition* (all The McGraw-Hill Companies), and has edited readers for the principles and labor economics courses. He is a recipient of both the University of Nebraska Distinguished Teaching Award and the James A. Lake Academic Freedom Award and is past president of the Midwest Economics Association. Professor McConnell was awarded an honorary Doctor of Laws degree from Cornell College in 1973 and received its Distinguished Achievement Award in 1994. His primary areas of interest are labor economics and economic education. He has an extensive collection of jazz recordings and enjoys reading jazz history.

STANLEY L. BRUE did his undergraduate work at Augustana College (South Dakota) and received its Distinguished Achievement Award in 1991. He received his Ph.D. from the University of Nebraska–Lincoln. He is retired from a long career at Pacific Lutheran University, where he was honored as a recipient of the Burlington Northern Faculty Achievement Award. Professor Brue has also received the national Leavey Award for excellence in economic education. He has served as national president and chair of the Board of Trustees of Omicron Delta Epsilon International Economics Honorary. He is coauthor of *Economic Scenes*, fifth edition (Prentice-Hall); *Contemporary Labor Economics*, ninth edition; *Essentials of Economics*, second edition; *Macroeconomics: Brief Edition; Microeconomics: Brief Edition* (all The McGraw-Hill Companies); and *The Evolution of Economic Thought*, seventh edition (South-Western). For relaxation, he enjoys international travel, attending sporting events, and skiing with family and friends.

SEAN M. FLYNN did his undergraduate work at the University of Southern California before completing his Ph.D. at U.C. Berkeley, where he served as the Head Graduate Student Instructor for the Department of Economics after receiving the Outstanding Graduate Student Instructor Award. He teaches at Scripps College (of the Claremont Colleges) and is the author of *Economics for Dummies* (Wiley) and coauthor of *Essentials of Economics*, second edition; *Macroeconomics: Brief Edition;* and *Microeconomics: Brief Edition* (all The McGraw-Hill Companies). His research interests include finance and behavioral economics. An accomplished martial artist, he has represented the United States in international aikido tournaments and is the author of *Understanding Shodokan Aikido* (Shodokan Press). Other hobbies include running, traveling, and enjoying ethnic food.

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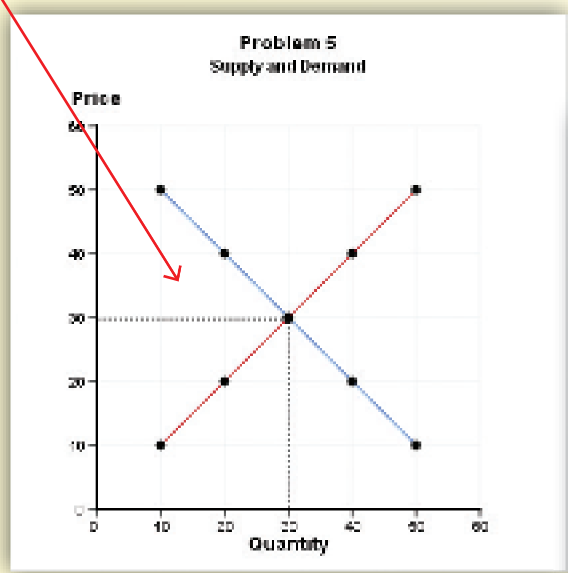

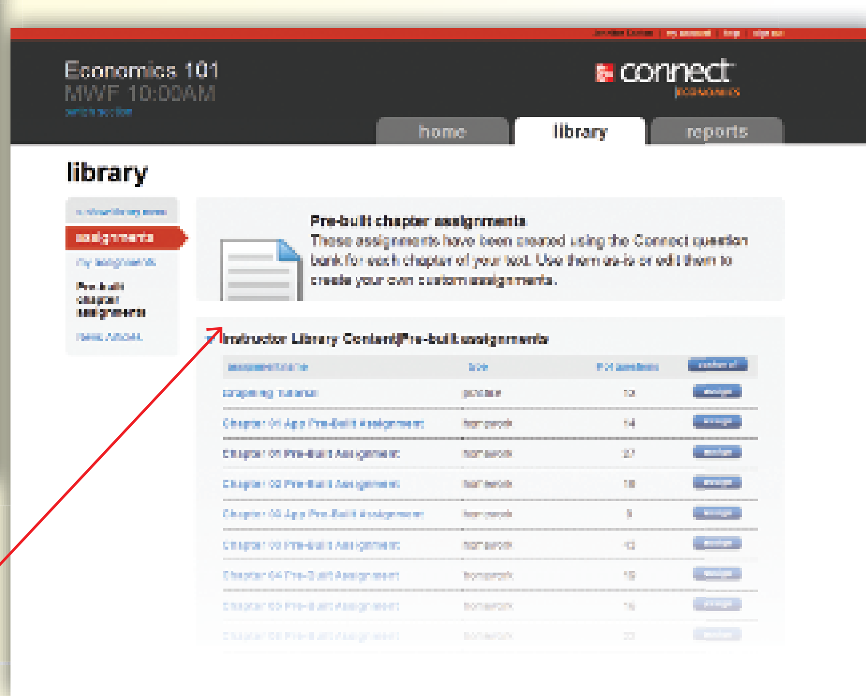

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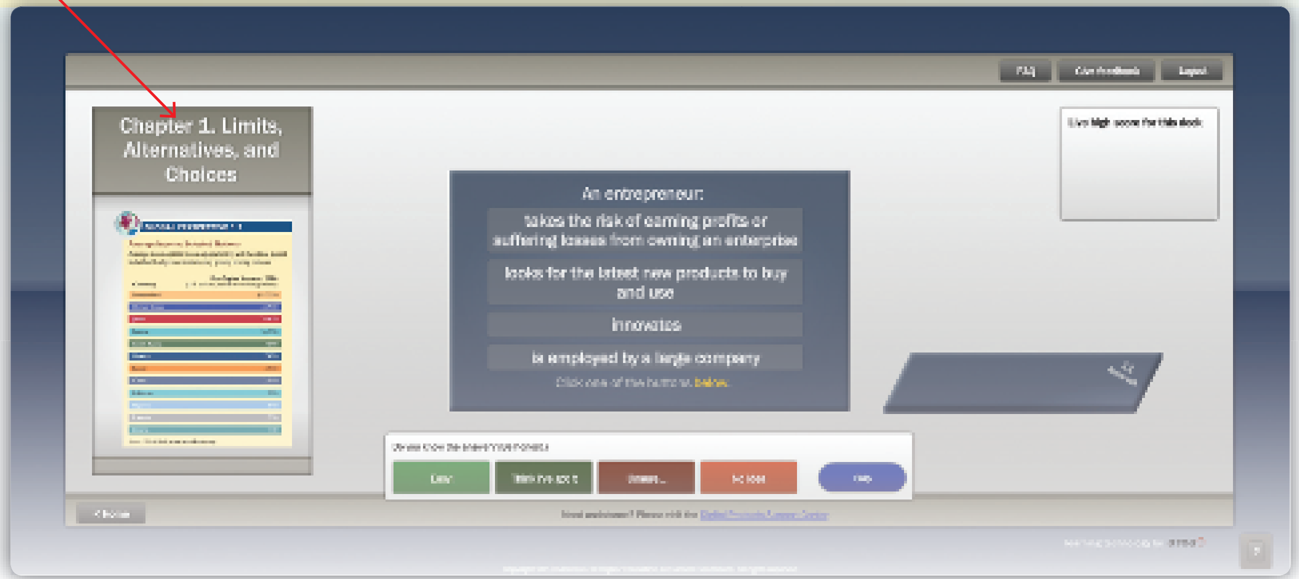

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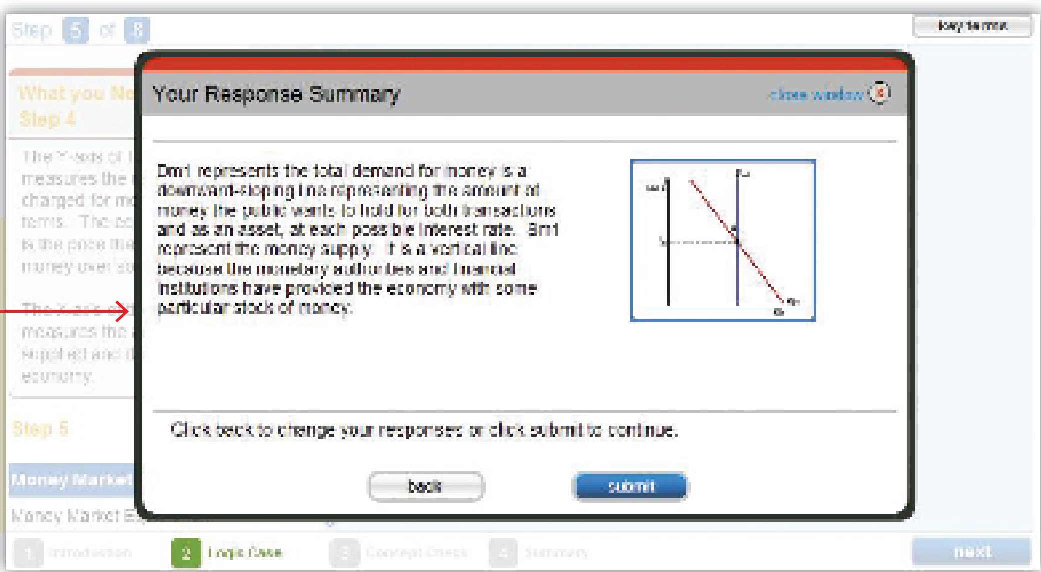

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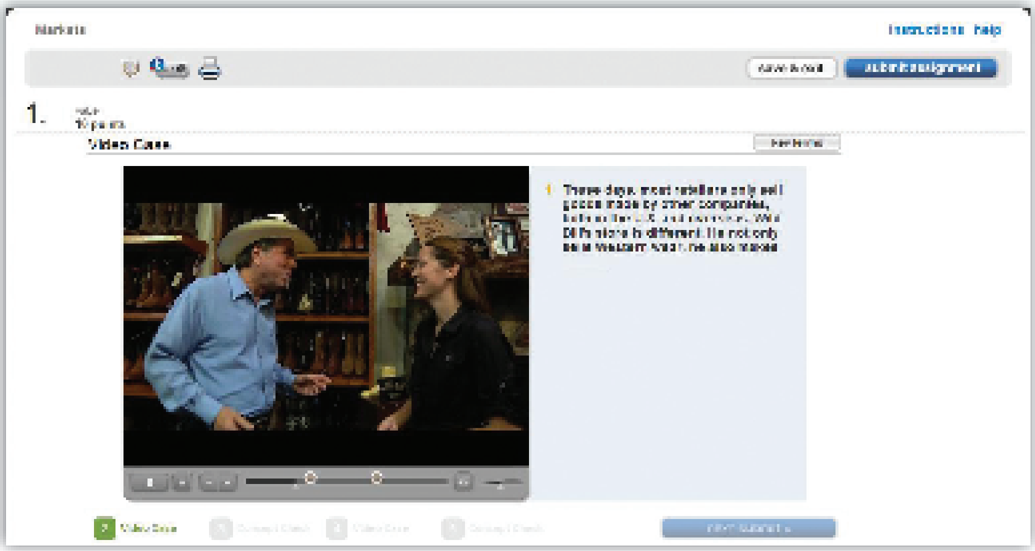

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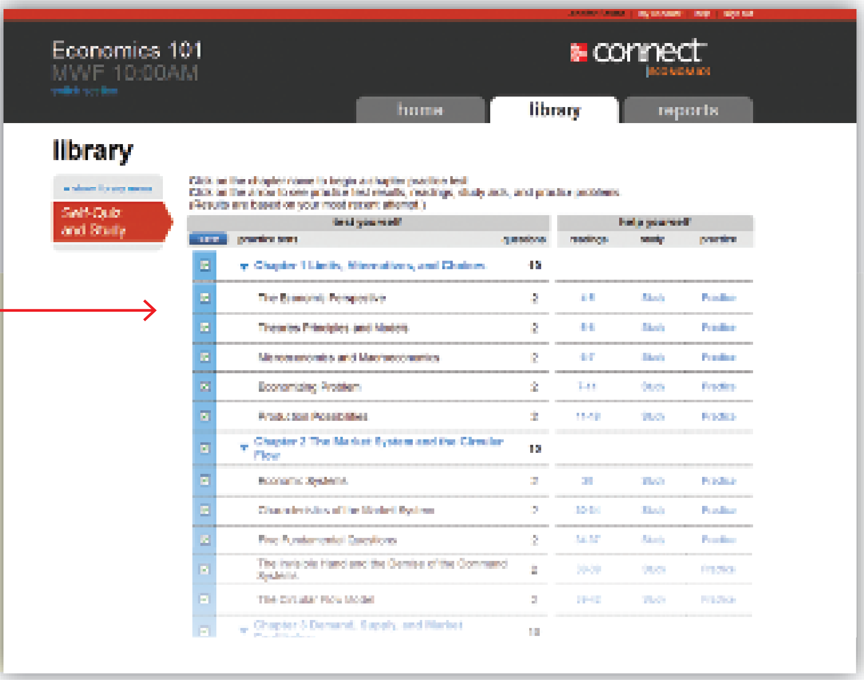

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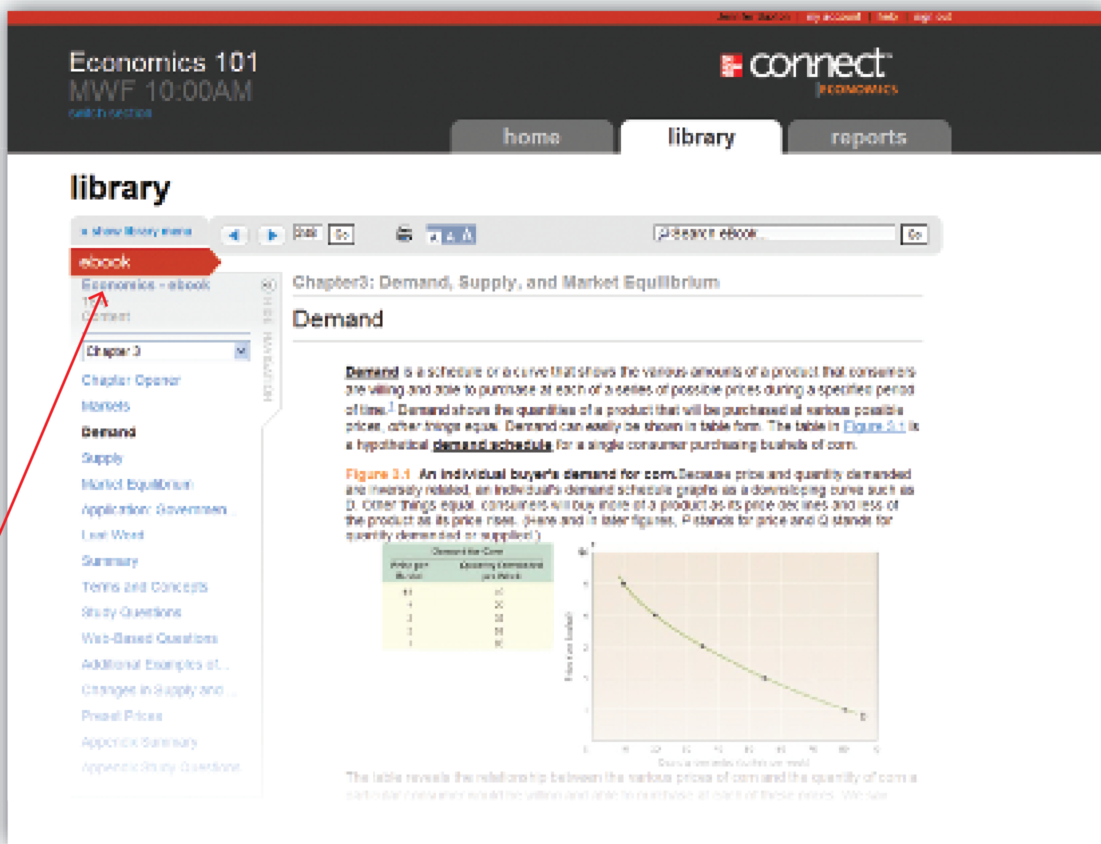

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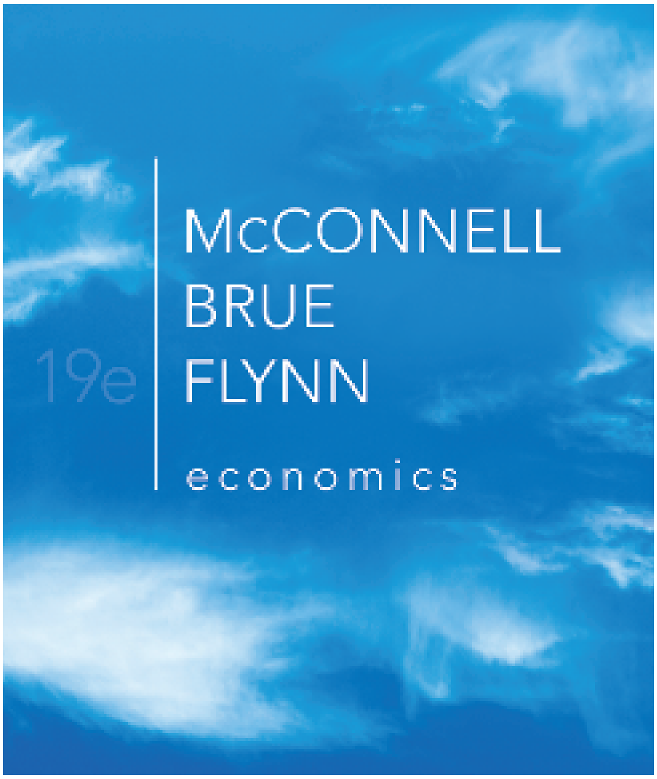
Preface



Welcome to the 19th edition of *Economics*, the best-selling economics textbook in the world. An estimated 14 million students have used *Economics* or its companion editions, *Macroeconomics* and *Microeconomics*. *Economics* has been adapted into Australian and Canadian editions and translated into Italian, Russian, Chinese, French, Spanish, Portuguese, and other languages. We are pleased that *Economics* continues to meet the market test: nearly one out of four U.S. students in principles courses used the 18th edition.

Fundamental Objectives

We have three main goals for *Economics:*

- Help the beginning student master the principles essential for understanding the economizing problem, specific economic issues, and policy alternatives.
- Help the student understand and apply the economic perspective and reason accurately and objectively about economic matters.
- Promote a lasting student interest in economics and the economy.

What's New and Improved?

One of the benefits of writing a successful text is the opportunity to revise—to delete the outdated and install the new, to rewrite misleading or ambiguous statements, to introduce more relevant illustrations, to improve the organizational structure, and to enhance the learning aids.

We trust that you will agree that we have used this opportunity wisely and fully. Some of the more significant changes include the following.

Restructured Introductory Chapters

We have divided the five-chapter grouping of introductory chapters common to *Economics*, *Microeconomics*, and *Macroeconomics* into two parts. Part 1 contains Chapter 1 (Limits, Alternatives, and Choices) and Chapter 2 (The Market System and the Circular Flow). The content in Part 2 has changed and now consists of three chapters: Chapter 3 (Demand, Supply, and Market Equilibrium), Chapter 4 (Elasticity), and Chapter 5 (Market Failures: Public Goods and Externalities).

The chapters in Part 2 are much more concept-oriented and analytical and much less general and descriptive than in the previous edition. Our new approach responds to suggestions by reviewers made over the years to:

- Locate the elasticity chapter immediately after the supply and demand chapter.
- Put the elasticity chapter into *Macroeconomics* for those who cover elasticity in their macro course.
- Eliminate the mainly descriptive Chapter 4 on the private and public sectors and move the relevant content to where it fits more closely with related micro and macro materials.
- Provide a single chapter on international trade, rather than two separate chapters that have overlapping coverage (Chapters 5 and 37 in *Economics*, 18th edition).
- Boost the analysis of market failures (public goods and externalities) in the introductory sections to complement and balance the strong but highly stylized introduction to the market system discussed in Chapter 2.

Our new approach embraces these suggestions. For micro instructors, the new ordering provides a clear supply-and-demand path to the subsequent chapters on consumer and producer behavior. For macro instructors, the new ordering provides the option of assigning elasticity or market failures or both. And because this content is both optional and modular, macro instructors can also skip it and move directly to the macroeconomic analysis.

The content on the United States in the global economy that appeared in Chapter 5 of the 18th edition of *Macroeconomics* is now integrated into Chapter 20 (International Trade). Because Chapter 20 draws only on production possibilities analysis and supply and demand analysis, it can be assigned at any point after Chapter 3 (Demand, Supply, and Market Equilibrium). Therefore, instructors who want to introduce international economics early in their courses can assign Chapter 20 within the introductory chapters found in Parts 1 and 2.

For instructors who prefer Chapter 5 of the prior edition to Chapter 20 of the new edition, we have fully updated the previous Chapter 5 content and made it freely available for viewing and printing at both the instructor and student portions of our Web site, **www.mcconnell19e.com**. Look for it under the new category called Content Options for Instructors (COI). This substitute for Chapter 20 is fully supported by both the instructor supplement package and the student supplement package.

New "Consider This" and "Last Word" Pieces

Our "Consider This" boxes are used to provide analogies, examples, or stories that help drive home central economic ideas in a student-oriented, real-world manner. For instance, a "Consider This" box titled "McHits and McMisses" illustrates consumer sovereignty through a listing of successful and unsuccessful products. The difference between stocks and flows is illustrated through a "Consider This" box that contrasts the pool of water above a dam and the flow of water into and out of the reservoir. These brief vignettes, each accompanied by a photo, illustrate key points in a lively, colorful, and easy-to-remember way. We have added 16 new "Consider This" boxes in this edition of *Economics*.

CONSIDER THIS . . .

The Fable of the Bees

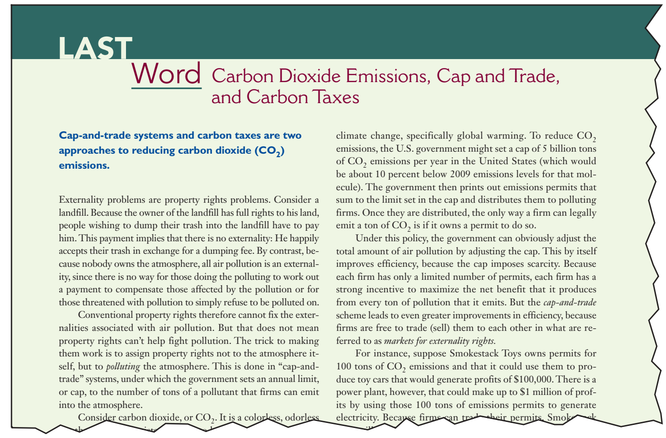
Economist Ronald Coase received the Nobel Prize for his so-called **Coase theorem,** which pointed out that under the right conditions, private individuals could often negotiate their own mutually agreeable solutions to externality problems through *private bargaining* without the need for government interventions like pollution taxes.

This is a very important insight because it means that we shouldn't automatically call for government intervention every time we see a potential externality problem. Consider the positive externalities that bees provide by pollinating farmers' crops. Should we assume that beekeeping will be underprovided unless the government intervenes with, for instance, subsidies to encourage more hives and hence more pollination?

As it turns out, no. Research has shown that farmers and beekeepers long ago used private bargaining to develop customs and payment systems that avoid free riding by farmers and encourage beekeepers to keep the optimal number of hives. Free riding is avoided by the custom that all farmers in an area simultaneously hire beekeepers to provide bees to pollinate their crops. And farmers always pay the beekeepers for their pollination services because if they didn't, then no beekeeper would ever work with them in the future—a situation that would lead to massively reduced crop yields due to a lack of pollination.

The "Fable of the Bees" is a good reminder that it is a fallacy to assume that the government must always get involved to remedy externalities. In many cases, the private sector can solve both positive and negative externality problems on its own.

Our "Last Word" pieces are lengthier applications or case studies that are placed near the end of each chapter. For example, the "Last Word" section for Chapter 1 (Limits, Alternatives, and Choices) examines pitfalls to sound economic reasoning, while the "Last Word" section for



LAST Word Carbon Dioxide Emissions, Cap and Trade, and Carbon Taxes

Cap-and-trade systems and carbon taxes are two approaches to reducing carbon dioxide (CO_2) emissions.

Externality problems are property rights problems. Consider a landfill. Because the owner of the landfill has full rights to his land, people wishing to dump their trash into the landfill have to pay him. This payment implies that there is no externality: He happily accepts their trash in exchange for a dumping fee. By contrast, because nobody owns the atmosphere, all air pollution is an externality, since there is no way for those doing the polluting to work out a payment to compensate those affected by the pollution or for those threatened with pollution to simply refuse to be polluted on.

Conventional property rights therefore cannot fix the externalities associated with air pollution. But that does not mean property rights can't help fight pollution. The trick to making them work is to assign property rights not to the atmosphere itself, but to *polluting* the atmosphere. This is done in "cap-and-trade" systems, under which the government sets an annual limit, or cap, to the number of tons of a pollutant that firms can emit into the atmosphere.

Consider carbon dioxide, or CO_2. It is a colorless, odorless

climate change, specifically global warming. To reduce CO_2 emissions, the U.S. government might set a cap of 5 billion tons of CO_2 emissions per year in the United States (which would be about 10 percent below 2009 emissions levels for that molecule). The government then prints out emissions permits that sum to the limit set in the cap and distributes them to polluting firms. Once they are distributed, the only way a firm can legally emit a ton of CO_2 is if it owns a permit to do so.

Under this policy, the government can obviously adjust the total amount of air pollution by adjusting the cap. This by itself improves efficiency, because the cap imposes scarcity. Because each firm has only a limited number of permits, each firm has a strong incentive to maximize the net benefit that it produces from every ton of pollution that it emits. But the *cap-and-trade* scheme leads to even greater improvements in efficiency, because firms are free to trade (sell) them to each other in what are referred to as *markets for externality rights.*

For instance, suppose Smokestack Toys owns permits for 100 tons of CO_2 emissions and that it could use them to produce toy cars that would generate profits of $100,000. There is a power plant, however, that could make up to $1 million of profits by using those 100 tons of emissions permits to generate electricity. Because firms can trade their permits, Smokestack

Chapter 5 (Market Failures: Public Goods and Externalities) examines cap-and-trade versus carbon taxes as policy responses to excessive carbon dioxide emissions. There are 10 new "Last Word" sections in this edition of *Economics*.

If you are unfamiliar with *Economics* or *Macroeconomics*, we encourage you to thumb through the chapters to take a quick look at these highly visible features.

New Discussions of the Financial Crisis and the Recession

Our modernization of the macroeconomics in the previous edition has met with great success, measured by reviews, instructor feedback, and market response. We recast the entire macro analysis in terms of the modern, dominant paradigm of macroeconomics, using economic growth as the central backdrop and viewing business fluctuations as significant and costly variations in the rate of growth. In this paradigm, business cycles result from demand shocks (or, less often, supply shocks) in conjunction with inflexible short-run product prices and wages. The degree of price and wage stickiness decreases with time. In our models, the *immediate short run* is a period in which both the price level and wages are not only sticky, but stuck; the *short run* is a period in which product prices are flexible but wages are not; and the *long run* is a period in which both product prices and wages are fully flexible. Each of these three periods—and thus each of the models based on them—is relevant to understanding the actual macro economy and its occasional difficulties.

In this edition, we have mainly focused on incorporating into our new macroeconomic schema an analysis of the financial crisis, the recession, and the hesitant recovery. We first introduce the recession in Chapter 6 (An Introduction to Macroeconomics) via a new "Consider This" box that ties to the chapter's discussion of Buzzer Auto, demand shocks, and short-run sticky prices. In Chapter 7 (Measuring Domestic Output and National Income) we point out that the main flows in the National Income and Product Accounts usually expand over time, but not always, as demonstrated by the recession. In Chapter 8 (Economic Growth) we discuss how the recession relates to the growth/production possibilities dynamics of Figure 8.2. In Chapter 9 (Business Cycles, Unemployment, and Inflation) we provide a telling comparison of unemployment rates for various demographic groups for the prerecession year 2007 and the recession year 2009.

In Chapter 10 (Basic Macroeconomic Relationships) we have added two "Consider This" boxes, one on how the paradox of thrift applied to consumer behavior during the recession and the other on the riddle of plunging investment spending at the same time the interest rate dropped to near zero during the recession. In Chapter 11 (The Aggregate Expenditures Model) we use the recession as a timely application of how a decline in aggregate expenditures can produce a recessionary expenditure gap and a highly negative GDP gap. In Chapter 12 (Aggregate Demand and Aggregate Supply) we use the recession as a good application of how negative demand shocks can produce large declines in real output with no or very little deflation. Chapter 13 (Fiscal Policy, Deficits, and Debt) provided a terrific opportunity to bring each of these timely and relevant subjects up-to-date, and we took full advantage of that opportunity.

In Chapter 14 (Money, Banking, and Financial Institutions) we added a major new section on the financial crisis, with emphasis on the mortgage debt crisis, mortgage-backed securities, failures and near-failures of financial firms, the Treasury's TARP rescue, the Fed's extraordinary use of lender-of-last-resort facilities, and the Wall Street Reform and Consumer Protection Act of 2010. In Chapter 15 (Money Creation), we stress that the Fed now pays interest on required reserves, and we also use the "Last Word" on the bank panics of 1930–1933 to explain how the Fed handled things very differently during the recent financial crisis.

Chapter 16 (Interest Rates and Monetary Policy) features several new discussions relating to Fed policies during the recession, including a new discussion on the liquidity trap. Along with giving the Fed high marks for dealing with the crisis, we also say that some economists think the Fed contributed to the financial crisis by keeping interest rates too low for too long during the recovery from the 2001 recession. We also replaced a dated "Consider This" piece with a new one on the ballooning Fed balance sheet and the problems it could pose for monetary policy during the eventual postrecession expansion. Chapter 17 (Financial Economics) presented a new opportunity for us to demonstrate how a sharp decline of the "appetite for risk" alters the slope of the Securities Market Line (SML) and changes investment patterns between stocks and bonds.

Other mentions of the recession are spread throughout the remainder of the macro chapters, including in the discussions of macro debates, trade protectionism, and trade deficits.

Although we found these various ways to work the recession into our macro chapters, we are confident that our basic macroeconomic models will serve equally well in explaining economic recovery and expansion back to the economy's historical growth path. The new inclusions relating to the recession simply help students see the relevance of the models to what they are seeing in the news and perhaps experiencing in their own lives. The overall tone of the book, including the macro, continues to be optimistic with respect to the long-term growth prospects of market economies.

Reworked End-of-Chapter Questions and Problems

We have extensively reworked the end-of-chapter Study Questions, splitting them into questions and problems and adding many new problems. The questions are analytic and often ask for free responses, whereas the problems are mainly quantitative. We have aligned the questions and problems with the learning objectives presented at the beginning of the chapters. All of the questions and problems are assignable through McGraw-Hill's *Connect Economics;* all of the problems also contain additional algorithmic variations and can be automatically graded within the system. The new lists of questions and problems were well-received by reviewers, many of them long-time users of the book.

Current Discussions and Examples

The 19th edition of *Macroeconomics* refers to and discusses many current topics. Examples include the cost of the war in Iraq; surpluses and shortages of tickets at the Olympics; the myriad impacts of ethanol subsidies; core inflation; China's continued rapid growth; the severe recession of 2007–2009; the paradox of thrift; the stimulus package of 2008; ballooning Federal budget deficits and public debt; the long-run funding shortfalls in Social Security and Medicare; securitization and the mortgage debt crisis; the Wall Street Reform and Consumer Protection Act of 2010; recent Fed monetary policy; the liquidity trap; the Fed's new term auction facility; the Fed's payment of interest on required reserves; the Taylor rule in relation to Fed policy; the jump in the size of the Fed's balance sheet; U.S. trade deficits; offshoring of American jobs; trade adjustment assistance; the European Union and the Euro Zone; changes in exchange rates; and many other current topics.

Chapter-by-Chapter Changes

Each chapter of *Macroeconomics*, 19th edition, contains updated data reflecting the current economy, streamlined Learning Objectives, and reorganized end-of-chapter content.

Chapter-specific updates include:

Chapter 1: Limits, Alternatives, and Choices features a new Learning Objective on consumption possibilities and a revised definition of "entrepreneur" that clarifies why risk taking is socially beneficial and, thus, why entrepreneurial ability is a valuable economic resource.

Chapter 2: The Market System and the Circular Flow includes a revised explanation of property rights, a clarified discussion of firms' motives for choosing the lowest-cost production methods, an updated "McHits and McMisses" "Consider This" box, and a revised discussion of the circular flow model.

Chapter 3: Demand, Supply, and Market Equilibrium contains wording improvements that clarify the main concepts.

Chapter 4: Elasticity is a new chapter that focuses solely on elasticity. This content has been moved forward from Chapter 6 of *Economics*, 18th edition, allowing this topic to be covered directly after supply and demand. This content will be available in both the Macro and Micro splits. The material on consumer and producer surplus from that chapter has been moved to Chapter 5 of *Macroeconomics*, 19th edition.

Chapter 5: Market Failures: Public Goods and Externalities is a new chapter that first examines consumer surplus, producer surplus, efficiency, and efficiency losses (all from Chapter 6, *Economics*, 18th edition). It then devotes the remainder of the chapter to market failures, specifically public goods and externalities (both from Chapter 16, *Economics*, 18th edition.) The chapter also features a new "Last Word" section that discusses the pros and cons of cap-and-trade emissions-control policies and a new "Consider This" box that concisely discusses the Coase Theorem.

Chapter 6: An Introduction to Macroeconomics includes two new "Consider This" boxes. The first contrasts economic investment with financial investment and the second discusses the recession of 2007–2009 in the context of the introductory analysis.

Chapter 7: Measuring Domestic Output and National Income adds new definitions and data for the terms *durable goods*, *nondurable goods*, and *services* in the discussion of personal consumption.

Chapter 8: Economic Growth has substantially revised Learning Objectives that provide a better preview of the chapter; tightened discussions in the "Consider This" boxes on patents in India and on women, the labor force, and economic growth; a new discussion relating the recession to the growth and production possibilities analysis in Figure 8.2; and updates on growth accounting from the *Economic Report of the President*.

Chapter 9: Business Cycles, Unemployment, and Inflation includes a revised discussion on business cycles, new data on unemployment rates during the recent recession, and a new discussion of core inflation.

Chapter 10: Basic Macroeconomic Relationships features new "Consider This" boxes discussing the Great Recession, the paradox of thrift, and the investment riddle, and an improved discussion of investment instability.

Chapter 11: The Aggregate Expenditures Model provides a revised introduction that links to the prior chapters, improved discussions in the "Assumptions and Simplifications" and "International Linkages" sections, and a new application that relates the Great Recession to the AE model.

Chapter 12: Aggregate Demand and Aggregate Supply has a new introduction that provides a current and relevant example for students, and a reorganized and updated "Last Word" on oil prices.

Chapter 13: Fiscal Policy, Deficits, and Debt provides explicit definitions of expansionary and contractionary fiscal policy and political business cycles, an updated discussion of current fiscal policy, detailed coverage of the 2008 and 2009 stimulus packages, and a new "Last Word" on Social Security and Medicare funding shortfalls.

Chapter 14: Money, Banking, and Financial Institutions features a new section on the financial crisis of 2007–2008, with emphasis on the mortgage default crisis, mortgage-backed securitization, failures and near failures of financial firms, the Treasury's TARP rescue, the Fed's extraordinary new lender-of-last resort facilities, and the Wall Street Reform and Consumer Protection Act of 2010. Also new is a "Last Word" on electronic banking.

Chapter 15: Money Creation contains a clarified discussion of a bank's balance sheet and an updated "Last Word" that contrasts the lack of action by the Fed during the early 1930s compared to the Fed's forceful actions during the financial crisis of 2007–2008.

Chapter 16: Interest Rates and Monetary Policy features a fully updated discussion of recent U.S. monetary policy, a new "Consider This" box on the ballooning balance sheet of the Fed during the recession of 2007–2009, and the conversion of the AD-AS summary figure from the previous edition to a new "Last Word" section.

Chapter 17: Financial Economics provides a revised introduction to the discussion of present value, a new section on applications of the security market line, and a new "Consider This" piece that discusses Ponzi schemes and Bernie Madoff.

Chapter 18: Extending the Analysis of Aggregate Supply features a crisper discussion of economic growth with ongoing inflation, along with a modified Figure 18.7, and an updated discussion of the Phillips Curve.

Chapter 19: Current Issues in Macro Theory and Policy has a new "Consider This" box on the Fed's actions prior to the financial crisis and an updated discussion of the Taylor Rule in the "Last Word."

Chapter 20: International Trade contains relevant content from Chapter 5 of the 18th edition. This chapter features additional explanation that clarifies how comparative advantage differs from absolute advantage, a new "Consider This" box on misunderstanding the gains from trade, and a streamlined discussion of multilateral trade agreements and free-trade zones.

Chapter 21: The Balance of Payments, Exchange Rates, and Trade Deficits features a streamlined explanation of why the balance-of-payments statement always balances, a revised discussion of official reserves and balance-of-payments deficits and surpluses, and updated discussions of exchange rates.

Chapter 22 Web: The Economics of Developing Countries includes a revised discussion of large populations and the standard of living and updated coverage of the role of government in improving the growth prospects of developing countries.

Distinguishing Features

Comprehensive Explanations at an Appropriate Level

Economics is comprehensive, analytical, and challenging yet fully accessible to a wide range of students. The thoroughness and accessibility enable instructors to select topics for special classroom emphasis with confidence that students can read and comprehend other independently assigned material in the book. Where needed, an extra sentence of explanation is provided. Brevity at the expense of clarity is false economy.

Fundamentals of the Market System

Many economies throughout the world are still making difficult transitions from planning to markets while a handful of other countries such as Venezuela seem to be trying to re-establish government-controlled, centrally planned economies. Our detailed description of the institutions and operation of the market system in Chapter 2 (The Market System and the Circular Flow) is therefore even more relevant than before. We pay particular attention to property rights, entrepreneurship, freedom of enterprise and choice, competition, and the role of profits because these concepts are often misunderstood by beginning students worldwide.

Extensive Treatment of International Economics

We give the principles and institutions of the global economy extensive treatment. The appendix to Chapter 3 (Demand, Supply, and Market Equilibrium) has an application on exchange rates. Chapter 20 (International Trade) examines key facts of international trade, specialization and comparative advantage, arguments for protectionism, impacts of tariffs and subsidies, and various trade agreements. Chapter 21 (Balance of Payments, Exchange Rates, and Trade Deficits) discusses the balance of payments, fixed and floating exchange rates, and U.S. trade deficits. Web Chapter 22 (The Economics of Developing Countries) takes a look at the special problems faced by developing countries and how the advanced industrial countries try to help them.

As noted previously in this preface, Chapter 20 (International Trade) is constructed such that instructors who want to cover international trade early in the course can assign it immediately after Chapter 3. Chapter 20 requires only a good understanding of production possibilities analysis and supply and demand analysis to comprehend. International competition, trade flows, and financial flows are integrated throughout *Macroeconomics*. "Global Perspective" boxes add to the international flavor of the text.

Early and Extensive Treatment of Government

The public sector is an integral component of modern capitalism. This book introduces the role of government early. Chapter 5 (Market Failures: Public Goods and Externalities) systematically discusses public goods and government policies toward externalities. Government's role (including the role of the Fed) in promoting price-stability, full employment, and economic growth is central to the macroeconomic policy chapters. Considerable attention is given to the issues related to budget deficits and the Federal debt.

Step-by-Step, Two-Path Macro

As in the previous edition, our macro continues to be distinguished by a systematic step-by-step approach to developing ideas and building models. Explicit assumptions about price and wage stickiness are posited and then systematically peeled away, yielding new models and extensions, all in the broader context of growth, expectations, shocks, and degrees of price and wage stickiness over time.

In crafting this step-by-step macro approach, we took care to preserve the "two-path macro" that many instructors appreciated. Instructors who want to bypass the immediate short-run model (Chapter 11: The Aggregate Expenditures Model) can proceed without loss of continuity directly to the short-run AD-AS model (Chapter 12: Aggregate Demand and Aggregate Supply), fiscal policy, money and banking, monetary policy, and the long-run AD-AS analysis.

Focus on Economic Policy and Issues For many students, the macro chapters on fiscal policy and monetary policy are where the action is centered. We guide that action along logical lines through the application of appropriate analytical tools.

Integrated Text and Web Site *Macroeconomics* and its Web site are highly integrated through in-text Web buttons, Web-based end-of-chapter questions, bonus Web chapters, multiple-choice self-tests at the Web site, math notes, and other features. Our Web site is part and parcel of our student learning package, customized to the book.

The in-text Web buttons (or indicators) merit special mention. Three differing colors of rectangular indicators appear throughout the book, informing readers that complementary content on a subject can be found at our Web site, **www.mcconnell19e.com**. The indicator types are:

Worked Problems Written by Norris Peterson of Pacific Lutheran University (WA), these pieces consist of side-by-side computational questions and computational procedures used to derive the answers. In essence, they extend the textbook's explanations of various computations—for example, of real GDP, real GDP per capita, the unemployment rate, the inflation rate, and more. From a student's perspective, they provide "cookbook" help for solving numerical problems.

WORKED PROBLEMS

W 1.1

Budget lines

Interactive Graphs These pieces (developed under the supervision of Norris Peterson) depict 30 major graphs in *Economics* and instruct students to shift the curves, observe the outcomes, and derive relevant generalizations. This hands-on graph work will greatly reinforce the graphs and their meaning.

INTERACTIVE GRAPHS

G 1.1

Production possibilities curve

Origin of the Ideas These pieces, written by Randy Grant of Linfield College (OR), are brief histories of 70 major ideas identified in *Economics*. They identify the particular economists who developed ideas such as opportunity cost, equilibrium price, the multiplier, comparative advantage, and elasticity.

ORIGIN OF THE IDEA

O 1.1

Origin of the term "economics"

Organizational Alternatives

Although instructors generally agree on the content of principles of economics courses, they sometimes differ on how to arrange the material. *Macroeconomics* includes 7 parts, and thus provides considerable organizational flexibility. For example, the two-path macro enables covering the full aggregate expenditures model or advancing directly from the chapter on basic macro relationships to the AD-AS model. Also, the section of Chapter 18 on the intricacies of the relationship between short-run and long-run aggregate supply can easily be appended to Chapter 12 on AD and AS.

Finally, as noted before, Chapter 20 on international trade can easily be moved up to immediately after Chapter 3 on supply and demand for instructors who want an early discussion of international trade.

Pedagogical Aids

Macroeconomics is highly student-oriented. The "To the Student" statement at the beginning of Part 1 details the book's many pedagogical aids. The 19th edition is also accompanied by a variety of high-quality supplements that help students master the subject and help instructors implement customized courses.

Supplements for Students and Instructors

Study Guide One of the world's leading experts on economic education, William Walstad of the University of Nebraska–Lincoln, prepared the *Study Guide*. Many students find either the printed or digital version indispensable. Each chapter contains an introductory statement, a checklist of behavioral objectives, an outline, a list of important terms, fill-in questions, problems and projects, objective questions, and discussion questions.

The *Guide* comprises a superb "portable tutor" for the principles student. Separate *Study Guides* are available for the macro and micro paperback editions of the text.

Instructor's Manual Laura Maghoney of Solano Community College revised and updated the *Instructor's Manual*, and Shawn Knabb of Western Washington University checked and brought the end-of-chapter questions, problems, and solutions to the *Manual*. The revised *Instructor's Manual* includes:

- Chapter summaries.
- Listings of "what's new" in each chapter.
- Teaching tips and suggestions.
- Learning objectives.
- Chapter outlines.
- Extra questions and problems.
- Answers to the end-of-chapter questions and problems, plus correlation guides mapping content to the learning objectives.

The *Instructor's Manual* is available on the instructor's side of the Online Learning Center.

Three Test Banks Test Bank I contains about 6500 multiple-choice and true-false questions, most of which were written by the text authors. Randy Grant revised Test Bank I for the 19th edition. Test Bank II contains around 6000 multiple-choice and true-false questions, updated by Felix Kwan of Maryville University. All Test Bank I and II questions are organized by learning objective, topic, AACSB Assurance of Learning, and Bloom's Taxonomy guidelines. Test Bank III, written by William Walstad, contains more than 600 pages of short-answer questions and problems created in the style of the book's end-of-chapter questions. Test Bank III can be used to construct student assignments or design essay and problem exams. Suggested answers to the essay and problem questions are included. In all, more than 14,000 questions give instructors maximum testing flexibility while ensuring the fullest possible text correlation.

Test Banks I and II are available in *Connect Economics*, through EZ Test Online, and in MS Word. EZ Test Online allows professors to create customized tests that contain both questions that they select from the test banks as well as questions that they craft themselves. Test Bank III is available in MS Word on the password-protected instructor's side of the Online Learning Center, and on the Instructor Resource CD.

PowerPoint Presentations With the assistance of Laura Maghoney, the Web site PowerPoint Presentations for the 19th edition were updated by a dedicated team of instructors: Jill Beccaris-Pescatore of Montgomery County Community College, Stephanie Campbell of Mineral Area College, Amy Chataginer of Mississippi Gulf Coast Community College, and Dorothy Siden of Salem State College. Each chapter is accompanied by a concise yet thorough tour of the key concepts. Instructors can use these Web site presentations in the classroom, and students can use them on their computers.

Digital Image Library Every graph and table in the text is available on the instructor's side of the Web site and on the Instructor's Resource CD-ROM.

McGraw-Hill Connect Economics McGraw-Hill *Connect Economics* is an online assignment and assessment solution that connects students with the tools and resources they'll need to achieve success. McGraw-Hill *Connect Economics* helps prepare students for their future by enabling faster learning, more efficient studying, and higher retention of knowledge.

All of the end-of-chapter questions and problems, the thousands of questions from Test Banks I and II, and additional resources are available in *Connect Economics*. For more information on *Connect Economics* and other technology, please see pages xiv–xxi.

Online Learning Center (www.mcconnell19e.com) The Web site accompanying this book is a central resource for students and instructors alike. The optional Web Chapter (Chapter 22W: The Economics of Developing Countries) plus the two new Content Options for Instructors (The United States in the Global Economy and Previous International Exchange-Rate Systems), are posted as full-color PDF files. The in-text Web buttons alert the students to points in the book where they can springboard to the Web site to get more information. Students can also review PowerPoint presentations and test their knowledge of a chapter's concepts with a self-graded multiple-choice quiz. The password-protected Instructor Center houses the Instructor's Manual, all three Test Banks, and links to EZ Test Online, PowerPoint presentations, and the Digital Image Library.

Computerized Test Bank Online A comprehensive bank of test questions is provided within McGraw-Hill's flexible electronic testing program EZ Test Online (**www.eztestonline.com**). EZ Test Online allows instructors to simply and quickly create tests or quizzes for their students. Instructors can select questions from multiple McGraw-Hill test banks or author their own, and then either print the finalized test or quiz for paper distribution or publish it online for access via the Internet.

This user-friendly program allows instructors to sort questions by format; select questions by learning objectives or Bloom's taxonomy tags; edit existing questions or add new ones; and scramble questions for multiple versions of the same test. Instructors can export their tests for use in WebCT, Blackboard, and PageOut, making it easy to share assessment materials with colleagues, adjuncts, and TAs. Instant scoring and feedback is provided, and EZ Test Online's record book is designed to easily export to instructor gradebooks.

Assurance-of-Learning Ready Many educational institutions are focused on the notion of assurance of learning, an important element of some accreditation standards. *Macroeconomics* is designed to support your assurance-of-learning initiatives with a simple yet powerful solution. Each chapter in the book begins with a list of numbered learning objectives to which each end-of-chapter question and problem is then mapped. In this way, student responses to those questions and problems can be used to assess how well students are mastering each particular learning objective. Each test bank question for *Macroeconomics* also maps to a specific learning objective.

You can use our test bank software, EZ Test Online, or *Connect Economics* to easily query for learning outcomes and objectives that directly relate to the learning objectives for your course. You can then use the reporting features 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. Understanding the importance and value of AACSB accreditation, *Macroeconomics*, 19th edition, has sought to recognize the curricula guidelines detailed in the AACSB standards for business accreditation by connecting end-of-chapter questions in *Macroeconomics*, 19th edition, and the accompanying test banks to the general knowledge and skill guidelines found in the AACSB standards.

This AACSB Statement for *Macroeconomics*, 19th edition, is provided only as a guide for the users of this text. The AACSB leaves content coverage and assessment within the purview of individual schools, their respective missions, and their respective faculty. While *Macroeconomics*, 19th edition, and the teaching package make no claim of any specific AACSB qualification or evaluation, we have, within *Macroeconomics*, 19th edition, labeled selected questions according to the six general knowledge and skills areas.

Acknowledgments

We give special thanks to Norris Peterson and Randy Grant, who created the "button" content on our Web site. We again thank James Reese of the University of South Carolina at Spartanburg, who wrote the original Internet exercises. Although many of those questions were replaced or modified in the typical course of revision, several remain virtually unchanged. We also thank Laura Maghoney and the team of instructors who updated the PowerPoint slides for the 19th edition. Shawn Knabb deserves great thanks for accuracy-checking the end-of-chapter questions and problems and their solutions, as well as for creating the variations of all of the problems. Thanks to the dedicated instructors who created and revised our additional study tools, including Steve Price, Shannon Aucoin, Brian Motii, Amy Scott, Emilio Gomez, Amy Stapp, Richard Kramer, and Mark Wilson. Finally, we thank William Walstad and Tom Barbiero (the coauthor of our Canadian edition) for their helpful ideas and insights.

We are greatly indebted to an all-star group of professionals at McGraw-Hill—in particular Douglas Reiner, Noelle Fox Bathurst, Harvey Yep, Lori Koetters, Jen Saxton, Melissa Larmon, and Brent Gordon—for their publishing and marketing expertise.

We thank Keri Johnson for her selection of the "Consider This" and "Last Word" photos and Mary Kazak Sander and Maureen McCutcheon for the design.

The 19th edition has benefited from a number of perceptive formal reviews. The reviewers, listed at the end of the preface, were a rich source of suggestions for this revision. To each of you, and others we may have inadvertently overlooked, thank you for your considerable help in improving *Macroeconomics*.

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