Economics

PRINCIPLES, PROBLEMS, AND POLICIES



Twentieth Edition

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ECONOMICS: PRINCIPLES, PROBLEMS, AND POLICIES, TWENTIETH EDITION

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

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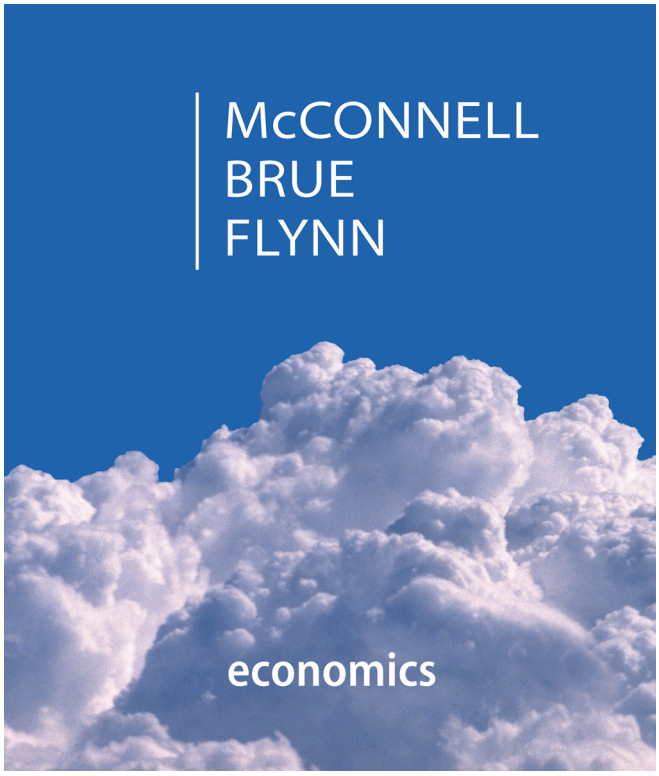
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Welcome to the 20th edition of *Economics*, the best-selling economics textbook in the world. An estimated 15 million students have used *Economics* or its companion editions, *Macroeconomics* and *Microeconomics*. *Economics* has been adapted into 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 five U.S. students in principles courses used the 19th 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.

Student Feedback

The twentieth edition has a renewed focus on today's students and their various approaches to learning. How do today's students study? How are they using mobile technology? When are they using the textbook, and how are they using the textbook? To help answer these questions, McGraw-Hill and author Sean Flynn formed a Student Advisory Board consisting of students from Belmont University, the University of Louisiana–Lafayette, Tarrant County College, and West Virginia University Institute of Technology. The Student Advisory Board participated in a wide variety of evaluation and testing activities over six months and provided targeted recommendations to improve the 20th edition and its ancillary learning materials. Their feedback was incredibly valuable, and the authors incorporated their suggestions in this revision.

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 the following three chapters: Chapter 3 (Demand, Supply, and Market Equilibrium), Chapter 4 (Market Failures: Public Goods and Externalities), and Chapter 5 (Government's Role and Government Failure).

As restructured, the three chapters that now form Part 2 give students a panorama of:

- The efficiency and allocation benefits of competitive markets.
- How and why governments can help when there are cases of market failure.
- An appreciation of government failure so that students do not assume that government intervention is an easy or guaranteed panacea for the misallocations and inefficiencies caused by market failure.

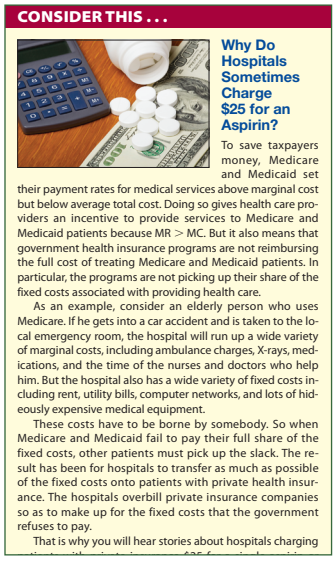
Our new approach responds to suggestions by reviewers to:

- Move the elasticity chapter back into *Microeconomics*.
- Boost the analysis of government failure to help students better understand many of the problems currently besetting the U.S. economy.

Our new approach embraces these suggestions. For microeconomics instructors, the new ordering provides a clear supply-and-demand path to the subsequent chapters on consumer and producer behavior while also giving students a stronger policy background on not only market failures but government interventions in the economy and whether they are likely to improve efficiency. For macroeconomics instructors, the new sequence provides a theoretical grounding that can help students better understand issues such as excessive government deficit spending and why there may be insufficient regulation of the financial sector. And because Chapters 4 and 5 are both optional and modular, instructors can skip them if they wish to move directly from Chapter 3's discussion of supply and demand to the core microeconomics or macroeconomics chapters.

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. How businesses exploit price discrimination is driven home in a "Consider This" box that explains why ballparks charge different admission prices for adults and children but only one set of prices at their concession stands. These brief vignettes, each accompanied by a photo, illustrate key points in a lively, colorful, and easy-to-remember way. We have added 14 new "Consider This" boxes in this edition.


CONSIDER THIS . . .

Why Do Hospitals Sometimes Charge $25 for an Aspirin?

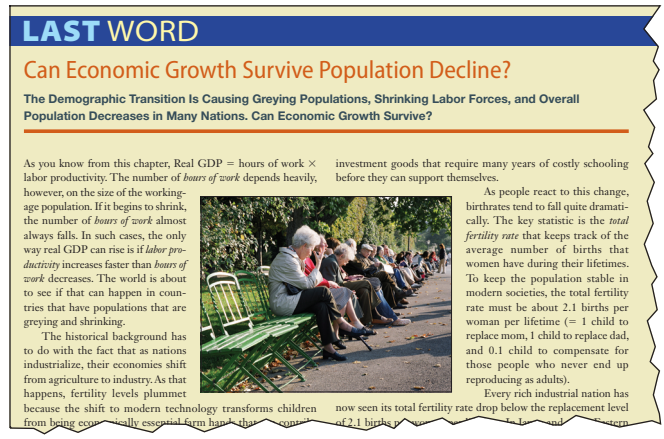
To save taxpayers money, Medicare and Medicaid set their payment rates for medical services above marginal cost but below average total cost. Doing so gives health care providers an incentive to provide services to Medicare and Medicaid patients because MR > MC. But it also means that government health insurance programs are not reimbursing the full cost of treating Medicare and Medicaid patients. In particular, the programs are not picking up their share of the fixed costs associated with providing health care.

As an example, consider an elderly person who uses Medicare. If he gets into a car accident and is taken to the local emergency room, the hospital will run up a wide variety of marginal costs, including ambulance charges, X-rays, medications, and the time of the nurses and doctors who help him. But the hospital also has a wide variety of fixed costs including rent, utility bills, computer networks, and lots of hideously expensive medical equipment.

These costs have to be borne by somebody. So when Medicare and Medicaid fail to pay their full share of the fixed costs, other patients must pick up the slack. The result has been for hospitals to transfer as much as possible of the fixed costs onto patients with private health insurance. The hospitals overbill private insurance companies so as to make up for the fixed costs that the government refuses to pay.

That is why you will hear stories about hospitals charging

Our "Last Word" pieces are lengthier applications or case studies that are placed near the end of each chapter.


LAST WORD

Can Economic Growth Survive Population Decline?

The Demographic Transition Is Causing Greying Populations, Shrinking Labor Forces, and Overall Population Decreases in Many Nations. Can Economic Growth Survive?

As you know from this chapter, Real GDP = hours of work × labor productivity. The number of *hours of work* depends heavily, however, on the size of the working-age population. If it begins to shrink, the number of *hours of work* almost always falls. In such cases, the only way real GDP can rise is if *labor productivity* increases faster than *hours of work* decreases. The world is about to see if that can happen in countries that have populations that are greying and shrinking.

The historical background has to do with the fact that as nations industrialize, their economies shift from agriculture to industry. As that happens, fertility levels plummet because the shift to modern technology transforms children from being economically essential farm hands that [illegible] investment goods that require many years of costly schooling before they can support themselves.

As people react to this change, birthrates tend to fall quite dramatically. The key statistic is the *total fertility rate* that keeps track of the average number of births that women have during their lifetimes. To keep the population stable in modern societies, the total fertility rate must be about 2.1 births per woman per lifetime (= 1 child to replace mom, 1 child to replace dad, and 0.1 child to compensate for those people who never end up reproducing as adults).

Every rich industrial nation has now seen its total fertility rate drop below the replacement level of 2.1 births [illegible]

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 Chapter 4 (Market Failures: Public Goods and Externalities) examines cap-and-trade versus carbon taxes as policy responses to excessive carbon dioxide emissions. There are 14 new "Last Word" sections in this edition.

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

New Chapter on Government's Role and Government Failure

We have responded to instructor suggestions by placing this new chapter on Government's Role and Government Failure into the introductory section of the book. Its early placement gives students a taste of political economy and the practical difficulties with government regulation and intervention. Topics covered include the special-interest effect, rent seeking, regulatory capture, political corruption, unfunded liabilities, and unintended consequences.

The chapter begins, however, by reminding students of government's great power to improve equity and efficiency. When read along with Chapter 4 on market failure, this new chapter on government failure should provide students with a balanced perspective. After learning why government intervention is needed to counter market failures, they will also learn that governments often have difficulty in fulfilling their full potential for improving economic outcomes.

An optional appendix incorporates the material on public choice theory and voting paradoxes that was formerly located in Chapter 17 of the 19th edition. Instructors wishing to give their students an even deeper appreciation of government failure may wish to assign this material.

Meanwhile, the material on asymmetric information that was located in Chapter 17 of the 19th edition has

been moved into an appendix attached to the current edition's Chapter 4 on market failure. That way, instructors wishing to give their students a deeper look at market failure will have the material on asymmetric information located immediately after that chapter's discussion of public goods and externalities.

New Chapter on Behavioral Economics

By building upon the material on prospect theory that appeared in Chapter 6 of the 19th edition, we have created a new full-length chapter on behavioral economics for the 20th edition. Topics covered include time inconsistency, myopia, decision-making heuristics, framing effects, mental accounting, loss aversion, the endowment effect, and reciprocity. The discussion is couched in terms of consumer decision making and includes numerous concrete examples to bring the material home for students.

We have also striven to make clear to students the ways in which behavioral economics builds upon and augments the insights of traditional neoclassical economics. Thus, the chapter opens with a section comparing and contrasting behavioral economics and neoclassical economics so that students will be able to see how both can be used in tandem to help understand and predict human choice behavior.

The chapter is designed, however, to be modular. So instructors may skip it completely without any fear that its concepts are needed to understand subsequent chapters.

New Discussions of the Financial Crisis and the Recession

Our modernization of the macroeconomics in the 18th 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 debate over the policy response to the 2007–2009 recession in Chapter 24 (An Introduction to Macroeconomics) via a new "Last Word" that briefly lays out the major opposing viewpoints about the nature and size of the stimulus that was applied during and after the crisis. In Chapter 25 (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 26 (Economic Growth), we discuss how the recession relates to the growth/production possibilities dynamics of Figure 26.2. In Chapter 27 (Business Cycles, Unemployment, and Inflation), we have a new "Last Word" that discusses the very slow recovery in employment after the Great Recession.

In Chapter 28 (Basic Macroeconomic Relationships), we include 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 29 (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. Chapter 30 (Aggregate Demand and Aggregate Supply) features a new "Last Word" on the debate among economists as to why the recovery from the 2007–2009 recession was so slow despite the historically unprecedented amounts of monetary and fiscal stimulus that were applied by policymakers. Chapter 31 (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 32 (Money, Banking, and Financial Institutions), we updated the major section on the financial crisis and added a new "Last Word" on whether the existence of megabanks that are considered "too big to fail" has led prosecutors to hold off on the full enforcement of securities laws and banking regulations. Chapter 33 (Money Creation) includes a new "Last Word" on the potential dangers of excessive leverage in the financial system and whether, consequently, regulators should increase required reserve ratios.

Chapter 34 (Interest Rates and Monetary Policy) features several new discussions relating to Fed policies during the recession and recovery, including quantitative easing, the zero interest rate policy, and Operation Twist. While giving the Fed high marks for dealing with the crisis and its aftermath, we also point out 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. Chapter 35 (Financial Economics)

presented a new opportunity for us to demonstrate how a sharp decline of the "appetite for risk" alters the slope of the Security Market Line (SML) and changes investment patterns between stocks and bonds.

Other mentions of the recession and subsequent recovery 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 and recovery into our macro chapters, we are confident that our basic macroeconomic models will serve equally well in explaining expansion back to the economy's historical growth path. The new inclusions 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.

Reorganized and Extended End-of-Chapter Questions and Problems

The 19th edition featured separate sections for end-of-chapter Questions and Problems. Due to strong demand on the part of instructors for an increase in the number of problems that are both autogradable and algorithmic, we have for the 20th edition added about 10 new problems per chapter and have, in addition, revised our organizational scheme for questions and problems.

The questions and problems are now divided into three categories: Discussion Questions, Review Questions, and Problems.

- The Discussion Questions are analytic and often allow for free responses.
- The Review Questions focus on the apprehension of key concepts but are worded so as to always require specific answers, thereby allowing for autograding and algorithmic variation.
- The Problems are quantitative and require specific answers so that they, too, are both autogradable and algorithmic.

All of the questions and problems are assignable through McGraw-Hill's *Connect Economics* and we have additionally aligned all of the questions and problems with the learning objectives presented at the beginning of chapters. The new structure as well as the newly added problems were well received by reviewers, many of them long-time users of the book.

Current Discussions and Examples

The 20th edition of *Economics* refers to and discusses many current topics. Examples include surpluses and shortages of tickets at the Olympics; the myriad impacts of ethanol subsidies; creative destruction; applications of behavioral economics; applications of game theory; the most rapidly expanding and disappearing U.S. jobs; oil and gasoline prices; cap-and-trade systems and carbon taxes; the value-added tax; state lotteries; consumption versus income inequality; the impact of electronic medical records on health care costs; the surprising fall in illegal immigration after the 2007–2009 recession; the massive increase in long-term unemployment; the difficulty of targeting fiscal stimulus; the rapid rise in college tuition; the slow recovery from the Great Recession; ballooning federal budget deficits and public debt; the long-run funding shortfalls in Social Security and Medicare; the effect of rising dependency ratios on economic growth; innovative Federal Reserve policies including quantitative easing, the zero interest rate policy, and explicit inflation targets; the massive excess reserves in the banking system; the jump in the size of the Fed's balance sheet; the effect of the zero interest rate policy on savers; regulation of "too big to fail" banks; trade adjustment assistance; the European Union and the eurozone; changes in exchange rates; and many other current topics.

Chapter-by-Chapter Changes

Each chapter of *Economics*, 20th edition, contains updated data reflecting the current economy, revised Learning Objectives, and reorganized and expanded end-of-chapter content. Several chapters also contain one or more additional Quick Review boxes to help students review and solidify content as they are reading along.

Chapter-specific updates include:

Chapter 1: Limits Alternatives, and Choices features three refreshed "Consider This" pieces, a more concise definition of macroeconomics, and wording improvements that clarify the main concepts.

Chapter 2: The Market System and the Circular Flow contains a heavily revised introductory section on the different types of economic systems found in the world today as well as a new section on how the market system deals with risk and uncertainty. Reviewers asked for more material on risk and its effects on economic behavior. This short section provides a brief, nontechnical framework for students to understand how the market economy deals with risk and uncertainty. There is also a new "Consider This" box on how insurance encourages investment by transferring risk from those who do not wish to bear it to those who are willing to bear it as a business proposition.

Chapter 3: Demand, Supply, and Market Equilibrium contains a short new section in the appendix that introduces students to markets with vertical supply curves so

that the concept of perfectly inelastic supply will come more easily to microeconomics students and the concept of vertical long-run aggregate supply will come more easily to macroeconomics students.

Chapter 4: Market Failures: Public Goods and Externalities includes a new "Consider This" piece on how musicians have reacted to the reality that Internet file sharing has transformed recorded music from a private good into a public good. There is also a new appendix that explains market failures caused by asymmetric information. The appendix gives instructors the option of extending and deepening this chapter's study of market failure. Its content previously appeared in Chapter 17 of the 19th edition.

Chapter 5: Government's Role and Government Failure is a new chapter that offers a balanced treatment of both the great benefits as well as the possible drawbacks of government economic intervention and regulation. The chapter includes topics of interest for both microeconomics and macroeconomics students, such as: regulatory capture, unfunded liabilities, the collective-action problem, bureaucratic inertia, the tendency for politicians to run budget deficits to please voters, and the special-interest effect. So while Chapter 4 makes the case for government regulation to compensate for market failures, this new chapter introduces students to the fact that government interventions are themselves susceptible to both allocative and productive inefficiency. As noted previously, the chapter also includes an appendix that incorporates the voting and public choice material that appeared in Chapter 17 of the 19th edition for instructors who wish to present their students with the most prominent theoretical models dealing with government failure.

Chapter 6: Elasticity contains a new "Consider This" vignette that relates elasticity to the high cost of college tuition as well as a number of wording improvements to increase clarity. This chapter was previously located in the 19th edition directly after Chapter 3 on supply and demand. It has been move to this new location to serve as the first chapter of the new three-chapter Part 3 that deals with consumer behavior. Along those lines, this chapter on elasticity explains in greater depth than Chapter 3 how consumers and producers react to changes in prices.

Chapter 7: Utility Maximization contains the utility-maximization material that previously appeared as the first half of the 19th edition's Chapter 6 (Consumer Behavior). This core content has been refreshed with a new example using iPads to explain consumer equilibrium.

Chapter 8: Behavioral Economics is a new, chapter-length overview of behavioral economics. The chapter incorporates the short section on prospect theory that was located in Chapter 6 of the 19th edition. New concepts include a discussion of the human brain's cognitive limitations and dependence on heuristics, how time inconsistency and myopia cause people to make suboptimal long-run decisions, and how people's sense of fairness and reciprocity affects decision making. The discussion of prospect theory includes anchoring, mental accounting, loss aversion, and the endowment effect.

Chapter 9: Businesses and the Costs of Production has a new "Consider This" vignette on sunk costs as well as a new "Last Word" on how additive manufacturing and 3-D printing may replace mass production with mass customization.

Chapter 10: Pure Competition in the Short Run is mostly unchanged from the 19th edition (where it appeared as Chapter 8). It contains several wording changes to improve clarity as well as a new Quick Review to increase retention.

Chapter 11: Pure Competition in the Long Run features a new "Last Word" that discusses the possibility that in certain industries patent protections may hinder rather than help innovation and the process of creative destruction.

Chapter 12: Pure Monopoly has a new "Last Word" on how network effects and economies of scale have driven the monopolistic growth of Internet giants such as Facebook, Google, and Amazon. We have also revised our explanation of barriers to entry in monopoly industries with high fixed costs. The revised presentation builds upon the new material in Chapter 2 that covers risk and its effects on economic decision making.

Chapter 13: Monopolistic Competition and Oligopoly contains several updated examples as well as a new "Last Word" on the intense oligopolistic competition that has ensued between major Internet companies like Google, Apple, and Microsoft as they have attempted to compete in each other's core lines of business.

Chapter 13 Web: Technology, R&D, and Efficiency contains a new "Last Word" discussing the drastic decline in federal research and development (R&D) spending over the past 50 years.

Chapter 14: The Demand for Resources features extensive data updates and a new Quick Review summarizing the material toward the end of the chapter.

Chapter 15: Wage Determination contains a new "Consider This" box on fringe benefits. It makes the point that if workers in a competitive labor market want higher fringe benefits, they must accept lower take-home pay (because total compensation is fixed by the equilibrium wage).

Chapter 16: Rent, Interest, and Profit features extensive data updating and several new examples in addition to additional Quick Reviews and nearly a dozen new Review Questions.

Chapter 17: Natural Resource and Energy Economics contains numerous data updates, an additional Quick Review, and two new "Consider This" vignettes. The first reports on alternative energy subsidies and the surge in oil and gas production resulting from hydraulic fracking. The second introduces students to Garret Hardin's "The Tragedy of the Commons" story as a way of understanding most resource-depletion crises.

Chapter 18: Public Finance: Expenditures and Taxes features numerous data updates, a new Quick Review, and a reference to the recent study that found that the United States has the most progressive tax system among all 30 OECD nations.

Chapter 19: Antitrust Policy and Regulation has many new examples of real-world collusive behavior and an expanded explanation of cartel behavior in the section on legal cartel theory.

Chapter 20: Agriculture: Economics and Policy features numerous data updates as well as a new discussion of the recent run-up in agricultural commodity prices.

Chapter 21: Income Inequality, Poverty, and Discrimination contains major data updates, enhanced figure captions, and several short additions that add clarity regarding the specific arguments made in the debate over income inequality.

Chapter 22: Health Care features three new "Consider This" pieces. The first explains how Medicare's decision to reimburse medical services at rates above marginal cost but below total cost forces hospitals to transfer the difference onto those with private health insurance. The second relates how electronic medical records have unexpectedly lowered care and increased costs. The third describes some of the problems being encountered with the implementation of the Patient Protection and Affordable Care Act (Obamacare).

Chapter 23: Immigration contains extensive data updates as well as a new "Last Word" piece covering the startling decline in illegal immigration that happened during and after the Great Recession of 2007–2009.

Chapter 24: An Introduction to Macroeconomics benefits from extensive revisions to the chapter's header structure, several new Quick Reviews, and a new "Last Word" that covers in a brief and accessible form the major opposing policy viewpoints about the effectiveness and ideal size of government stimulus during and after the 2007–2009 recession.

Chapter 25: Measuring Domestic Output and National Income features two clarifications driven directly by student input. First, the table giving U.S. GDP by both the expenditure method and the income method is more clearly referenced in all instances so as to reduce any possible confusion as to which part of the table is being referred to. Second, there is now a more detailed explanation of the statistical discrepancy that appears when the income method is used to calculate GDP.

Chapter 26: Economic Growth benefits from extensive data updates, a new Quick Review to help solidify comprehension, and a new "Last Word" that discusses the challenges to economic growth posed by falling birth rates and a greying population.

Chapter 27: Business Cycles, Unemployment, and Inflation features a new "Last Word" on the slow recovery of employment after the Great Recession. There are also two new "Consider This" vignettes that discuss, respectively, the relationship between downwardly sticky wages and unemployment and the idea that moderate inflation rates may help to lower unemployment by allowing firms to cut real wages without cutting nominal wages.

Chapter 28: Basic Macroeconomic Relationships features a revised header structure to better guide students through the material, a new Quick Review to help solidify retention, and substantial revisions to several graphs and their captions to further refine and clarify the fundamental concepts introduced in this chapter.

Chapter 29: The Aggregate Expenditures Model has substantial changes to a key figure in order to improve clarity as well as a heavily revised list of Learning Objectives.

Chapter 30: Aggregate Demand and Aggregate Supply features a new "Last Word" on the discussion economists have been having as to why the recovery from the Great Recession has been so slow despite record amounts of monetary and fiscal stimulus.

Chapter 31: Fiscal Policy, Deficits, and Debt features extensive data updates to help students understand the historically unprecedented size of recent federal budget deficits.

Chapter 32: Money, Banking, and Financial Institutions features a new "Last Word" on how some banks are now considered "too big to fail" and how that has affected the prosecution of financial crimes. The chapter also contains four new Quick Reviews to help students better retain the chapter's material.

Chapter 33: Money Creation features a new "Last Word" on the dangers of leverage in the banking system and whether required reserve ratios should consequently be increased.

Chapter 34: Interest Rates and Monetary Policy features a new section on the Fed's monetary policy initiatives after the Great Recession, including quantitative easing (QE), forward guidance, the zero interest rate policy (ZIRP), and Operation Twist. There is also a new "Last Word" discussing the potential unintended consequences of QE and ZIRP.

Chapter 35: Financial Economics features extensive data updates, five new Quick Reviews, and revised section headers to increase clarity.

Chapter 36: Extending the Analysis of Aggregate Supply features data updates, an extended discussion of the Laffer Curve, and a new Quick Review.

Chapter 37: Current Issues in Macro Theory and Policy has a new Quick Review plus a brief discussion of the Fed's recent decisions to (1) have an explicit inflation target and (2) preannounce the likely duration of open-market operations and quantitative easing.

Chapter 38: International Trade features extensive data updates, several revised figure captions, and three new Quick Reviews.

Chapter 39: The Balance of Payments, Exchange Rates, and Trade Deficits features revised problems, extensive data updates, four new Quick Reviews, and a new set of Learning Objectives.

Chapter 39 Web: The Economics of Developing Countries features extensive data revisions and an all-new set of Discussion Questions.

COI1: The United States in the Global Economy features a heavily revised map of the international distribution of income levels, a totally new set of Discussion Questions, and extensive data updates.

COI2: Previous International Exchange Rate Systems remains unchanged for the 20th edition.

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 reestablish 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 38 (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 39 (The 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 39 (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 38 (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 38 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 the micro and macro sections. "Global Perspective" boxes add to the international flavor of the book.

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 4 (Market Failures: Public Goods and Externalities) systematically discusses public goods and government policies toward externalities. Chapter 5 (Government's Role and Government Failure) details the factors that cause government failure. And Chapter 18 (Public Finance: Expenditures and Taxes) examines taxation and government expenditures in detail. Both the micro and the macro sections of the text include issue- and policy-oriented chapters.

Stress on the Theory of the Firm We have given much attention to microeconomics in general and to the theory of the firm in particular, for two reasons. First, the concepts of microeconomics are difficult for most beginning students; abbreviated expositions usually compound these

difficulties by raising more questions than they answer. Second, we wanted to couple analysis of the various market structures with a discussion of the impact of each market arrangement on price, output levels, resource allocation, and the rate of technological advance.

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 29: The Aggregate Expenditures Model) can proceed without loss of continuity directly to the short-run AD-AS model (Chapter 30: Aggregate Demand and Aggregate Supply), fiscal policy, money and banking, monetary policy, and the long-run AD-AS analysis.

Emphasis on Technological Change and Economic Growth This edition continues to emphasize economic growth. Chapter 1 (Limits, Alternatives, and Choices) uses the production possibilities curve to show the basic ingredients of growth. Chapter 26 (Economic Growth) explains how growth is measured and presents the facts of growth. It also discusses the causes of growth, looks at productivity growth, and addresses some controversies surrounding economic growth. Chapter 26's "Last Word" examines whether economic growth can survive demographic decline. Web Chapter 39 focuses on developing countries and the growth obstacles they confront. Web Chapter 13 (Technology, R&D, and Efficiency) provides an explicit and cohesive discussion of the microeconomics of technological advance, including topics such as invention, innovation, and diffusion; start-up firms; R&D decision making; market structure and R&D effort; and creative destruction.

Focus on Economic Policy and Issues For many students, the micro chapters on antitrust, agriculture, income inequality, health care, and immigration, along with 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. In the micro, we favor inclusiveness; instructors can effectively choose two or three chapters from Part 6.

Integrated Text and Web Site *Economics* and its Web site are highly integrated through in-text Web buttons, 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. Two differently colored rectangular indicators appear throughout the book, informing readers that complementary content on a subject can be found at our Web site, **www.mcconnell20e.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, per-unit production costs, economic profit, and more. From a student's perspective, they provide "cookbook" help for solving numerical problems.



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

Organizational Alternatives

Although instructors generally agree on the content of principles of economics courses, they sometimes differ on how to arrange the material. *Economics* includes 11 parts, and thus provides considerable organizational flexibility. We place microeconomics before macroeconomics because this ordering is consistent with how contemporary economists view the direction of linkage between the two components. The introductory material of Parts 1 and 2, however, can be followed immediately by the macroanalysis of Parts 7 and 8. Similarly, the two-path macro enables covering the full aggregate expenditures model or advancing directly from the basic macro relationships chapter to the AD-AS model.

Some instructors will prefer to intersperse the microeconomics of Parts 4 and 5 with the problems chapters of

Part 6. Chapter 20 on agriculture may follow Chapters 10 and 11 on pure competition; Chapter 19 on antitrust and regulation may follow Chapters 12, 13, and 13Web on imperfect competition models and technological advance. Chapter 23 on immigration may follow Chapter 15 on wages; and Chapter 21 on income inequality may follow Chapters 15 and 16 on distributive shares of national income.

Instructors who teach the typical two-semester course and feel comfortable with the book's organization will find that, by putting Parts 1 to 6 in the first semester and Parts 7 to 11 in the second, the material is divided logically between the two semesters.

Finally, Chapter 38 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

Economics is highly student-oriented. The "To the Student" statement at the beginning of Part 1 details the book's many pedagogical aids. The 20th 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 Shawn Knabb of Western Washington University revised and updated the *Instructor's Manuals* to accompany the 20th edition of the text. 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 6,500 multiple-choice and true-false questions, most of which were written by the text authors. Randy Grant revised Test Bank I for the 20th edition. Test Bank II contains around 6,000 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 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 The PowerPoint Presentations for the 20th edition were updated by a dedicated team of instructors: Stephanie Campbell of Mineral Area College, Amy Chataginer of Mississippi Gulf Coast Community College, and Shannon Aucoin of the University of Louisiana at Lafayette. 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.

Scanning Barcodes For students using smartphones and tablets, scanning barcodes (or QR codes) located within the chapter guide students to additional chapter resources, including:

- Web buttons
- Student PowerPoints
- Worked problems

Try It Now!

Students not using smartphones or tablets can access the same resources by clicking the barcodes when viewing the eBook or by going to **www.mcconnell20e.com.**

Online Learning Center (www.mcconnell20e.com) The Web site accompanying this book is a central resource for students and instructors alike. The optional Web Chapters (Chapter 13W: Technology, R&D, and Efficiency and Chapter 39W: The Economics of Developing Countries) plus the two 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 are 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. *Economics* 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 *Economics* 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, *Economics*, 20th edition, has sought to recognize the curricula guidelines detailed in the AACSB standards for business accreditation by connecting end-of-chapter questions in *Economics*, 20th edition, and the accompanying test banks to the general knowledge and skill guidelines found in the AACSB standards.

This AACSB Statement for *Economics*, 20th 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 *Economics*, 20th edition, and the teaching package make no claim of any specific AACSB qualification or evaluation, we have, within *Economics*, 20th edition, labeled selected questions according to the six general knowledge and skills areas.

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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. Ryan Umbeck, Peter Staples, and Heather Schumacker deserve considerable credit for their hard work on the questions and problems in *Connect*. Thanks to the many dedicated instructors who accuracy-checked the end-of-chapter content, test banks, and Instructor's Manuals: Jennifer Pate, Charles Harrington, Rick Hirschi, Melissa Rueterbusch, Gregory McGiffney, and Mike Winterhalter. 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, Lori Koetters, Casey Rasch, Scott Smith, Bruce Gin, and Katie Hoenicke—for their publishing and marketing expertise. We thank Keri Johnson for her selection of the "Consider This" and "Last Word" photos and Debra Kubiak for the design.

The 20th 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 *Economics*.

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