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Glenn Hubbard | Anthony Patrick O'Brien



Economics

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Economics

Eighth Edition

Global Edition

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For Constance, Raph, and Will

—*Glenn Hubbard*

For Cindy, Matthew, Andrew, and Daniel

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PREFACE

Our approach in this new edition remains what it was in the first edition: to provide students and instructors with a text that delivers complete coverage of economic topics using many real-world examples. Our goal from the beginning has been to teach economics in a “widget-free” way by using real-world business and policy examples.

Much has happened in the world of economics since we prepared the previous edition, including the longest economic expansion in the history of the U.S. economy and the first significant international trade war since the 1930s. We have incorporated many of these developments in the new real-world examples and policy discussions in this edition and also in the extensive digital resources, which include:

- More than 130 author-created application videos of the chapter openers and *Apply the Concept* features
- More than 250 figure animation videos
- More than 20 *Solved Problem* whiteboard videos

New to This Edition

Here is an overview of the revisions, followed by a more detailed description of the changes in each chapter.

Overview of Changes

- All the chapter openers feature either new companies or have updated information.
- Chapters 1–4 include new *An Inside Look* features to help students apply economic thinking to current events and policy debates as they are presented in news articles.
- There are 27 new *Apply the Concept* features and videos to help students tie economic concepts to current events and policy issues. The *Apply the Concept* features and videos that were retained from the previous edition have been updated.
- There are 8 new *Solved Problems*, and many of those retained from the previous edition have been updated. The *Solved Problem* feature uses real-world products, events, and policies to help students break down and answer economic problems step by step. New to this edition are whiteboard videos of select *Solved Problems* that bring these real-world problems to life with audio, background photos, and step-by-step construction of graphs and tables.
- All the figures and tables and their animations have been updated with the latest data available.
- Many of the end-of-chapter *Problems and Applications* have been updated or replaced. In most chapters, one or two problems include graphs or tables for students to analyze. Select chapters have a category titled *Real-Time Data Exercises*, and we have updated some of those exercises.
- Based on marketing feedback and our analysis of instructor assignments, we have made the following organizational changes to the print version of the book:
 - We cut the income statement and balance sheet material from the appendix to Chapter 8 (the discussion of present value was retained); the isoquant and isocost line material from the appendix to Chapter 11; and the gold standard and Bretton Woods material from the appendix to Chapter 30 (now Chapter 28). All of this material is still available within MyLab Economics for instructors and students who wish to use it.

- We removed Chapter 16, “Pricing Strategy,” but retained the coverage of price discrimination and integrated it into Chapter 15, “Monopoly and Antitrust.”
- We streamlined and merged Chapter 29, “Macroeconomics in an Open Economy,” and Chapter 30, “The International Financial System” into one chapter, Chapter 28, “Macroeconomics in an Open Economy”

New Content and Features by Chapter

Here is a description of key changes by chapter.

Chapter 1, “Economics: Foundations and Models,” opens with a new discussion of how the Trump administration’s tariff policy may affect Apple and other firms. *An Inside Look* at the end of the chapter presents a news article and analysis of whether those tariffs are bringing manufacturing jobs back home or primarily raising prices for U.S. consumers. New *Solved Problem 1.1* analyzes the marginal benefit and marginal cost of the U.S. Postal Service delivering packages for Amazon. A new *Apply the Concept* discusses whether a congressional bill aimed at increasing the pay of low-wage workers could backfire.

Chapter 2, “Trade-offs, Comparative Advantage, and the Market System,” opens with an updated discussion of the resource allocation decisions Elon Musk and managers at Tesla Motors face. *An Inside Look* at the end of the chapter discusses the plans of Porsche’s parent company, Volkswagen, to create a full line of electric automobiles. A new *Apply the Concept* discusses the recent debates about socialism.

Chapter 3, “Where Prices Come From: The Interaction of Demand and Supply,” opens with a new discussion of Nike and the highly competitive market for athletic shoes. We use that market to develop the demand and supply model. *An Inside Look* at the end of the chapter examines plans by BASF and Reebok to release 3D printed shoes. There are three new *Apply the Concepts*: “Forecasting the Demand for Athletic Shoes,” “Fracking, the U.S. Oil Boom, and Expected Oil Prices,” and “Higher Demand for Cobalt—But Lower Prices?” New *Solved Problem 3.4* examines how we can predict changes in the price and quantity of merino wool.

Chapter 4, “Economic Efficiency, Government Price Setting, and Taxes,” opens with an updated discussion about the economic link between food riots in Venezuela and the rise in popularity of Uber in the United States. At the end of the chapter, *An Inside Look* examines why Uber is suing New York City over its limit on the number of cars ride-hailing companies are allowed. New *Solved Problem 4.4* examines who bears the burden of the Seattle beverage tax.

Chapter 5, “Externalities, Environmental Policy, and Public Goods,” opens with a new discussion of NextEra Energy, which produces more electricity using solar and wind power than any other company in the world. A new *Apply the Concept* discusses whether the United States needs a Green New Deal. New *Solved Problem 5.3* examines the role of congestion fees in addressing traffic problems in Manhattan.

Chapter 6, “Elasticity: The Responsiveness of Demand and Supply,” opens with an updated discussion of how to evaluate the success of the soda taxes enacted by several cities, including San Francisco and Philadelphia, in improving people’s health and increasing tax revenue. New *Solved Problem 6.3* covers the possible effect of a city policy to raise the fine for drivers parked at expired meters. A new *Apply the Concept* discusses the price elasticity of demand for the Amazon and Netflix movie streaming services.

Chapter 7, “The Economics of Health Care,” opens with a new discussion of whether private insurance companies such as Blue Cross and Blue Shield should be eliminated in favor of a single-payer government health system. New Table 7.2 summarizes and compares the essential aspects of the health care systems in Canada, Japan, and the United Kingdom. A new *Apply the Concept* discusses the debate over “Medicare for All.”

Chapter 8, “Firms, the Stock Market, and Corporate Governance,” opens with a new discussion of Lyft’s initial public offering. A new *Apply the Concept* explores why someone would want to buy Lyft stock, given the company’s financial losses. New Table 8.1 summarizes the historical long-run returns from investing in different assets. Coverage of recent issues in corporate governance policy, formerly in Section 8.4, has been streamlined and merged into Section 8.3. The appendix still covers present value, but the coverage of income statements and balance sheets now appears as an online appendix.

Chapter 9, “Comparative Advantage and the Gains from International Trade,” opens with a discussion of how the 2019 Trump Administration tariffs on imports from China affected Whirlpool, a home appliance maker based in Benton Harbor, Michigan. A new *Apply the Concept* analyzes who gains and who loses from tariffs on imports from China.

Chapter 10, “Consumer Choice and Behavioral Economics,” opens with a discussion of the problems that led Sears to file for bankruptcy and close all of its stores. A new *Apply the Concept* discusses how Taylor Swift avoided ticket scalping problems during her 2018 *Reputation* concert tour. Another new *Apply the Concept* illustrates sunk costs for the San Francisco Giants baseball team. A new *Don’t Let This Happen to You* covers the potential confusion between the income effect of a price change and the effect of an increase in money income.

Chapter 11, “Technology, Production, and Costs,” opens with a new discussion of fracking and its effect on the world market for oil. A new *Apply the Concept* examines the use of robots and drones in the oil industry. New *Solved Problem 11.7* examines the long-run average cost curves for fracking companies. The appendix, “Using Isoquants and Isocost Lines to Understand Production and Cost,” now appears as an online appendix.

Chapter 12, “Firms in Perfectly Competitive Markets,” opens with an updated discussion of the difficulty farmers have making an economic profit selling cage-free eggs. There are two new *Apply the Concepts*: “What Does ‘Break Even’ Mean in the Oil Fields?” and “The Winding Path to Long-Run Equilibrium in the Egg Market.”

Chapter 13, “Monopolistic Competition: The Competitive Model in a More Realistic Setting,” opens with a new discussion of the rise of third wave coffeehouses; a new *Apply the Concept* explores whether third wave coffeehouses can remain profitable; and new *Solved Problem 13.3* analyzes the long-run effects of Amazon Go’s “Just Walk Out” technology.

Chapter 14, “Oligopoly: Firms in Less Competitive Markets,” includes two new *Apply the Concepts*: “Are Unlicensed Yoga Instructors a Menace to Public Health?” and “Do Large Firms Live Forever?”

Chapter 15, “Monopoly and Antitrust Policy,” opens with a new discussion of the U.S. Postal Service (USPS) and why Congress gave it a monopoly on delivery of first-class mail. A new *Apply the Concept* discusses how package delivery competitors such as FedEx and UPS compete with the USPS. Another new *Apply the Concept* considers whether the Justice Department should break up Google, Amazon, and Facebook. New Table 15.2 summarizes how airlines maximize profit by charging different ticket prices to business travelers and leisure travelers. We have cut the seventh edition’s Chapter 16, “Pricing Strategy,” but retained its coverage of price discrimination and moved it here into Chapter 15 as Section 15.5, “Price Discrimination.”

Chapter 16, “The Markets for Labor and Other Factors of Production,” opens with a new discussion of how robotic technology is being used in three areas: in restaurants to make hamburgers, in Amazon Go convenience stores, and at a mining company in Australia.

Chapter 17, “Public Choice, Taxes, and the Distribution of Income,” opens with an updated discussion of the Tax Cut and Jobs Act of 2017. A new *Apply the Concept* explores whether the federal government should tax wealth and whether such a tax is economically efficient.

Chapter 18, “GDP: Measuring Total Production and Income,” opens with a new discussion of how General Motors and other car companies deal with the business cycle. A new *Apply the Concept* discusses whether gross domestic income is a more reliable measure of total production than gross domestic product.

Chapter 19, “Unemployment and Inflation,” opens with a new discussion of how Wisconsin-based Stoughton Trailers dealt with the challenge of finding workers during a period of very low unemployment. A new *Apply the Concept* discusses whether advances in information technology permanently increase structural unemployment. A new section covers trends in labor force participation rates.

Chapter 20, “Economic Growth, the Financial System, and Business Cycles,” begins with a new opener that discusses how millennials (people born between 1981 and 1996) have experienced both technological change and the effects of the business cycle. New Figure 20.9 and surrounding text also cover this topic.

Chapter 21, “Long-Run Economic Growth: Sources and Policies,” opens with a new discussion of the role of technological change and creative destruction in lifting living standards. A new *Apply the Concept* explores the economic growth of sub-Saharan Africa and projections of future growth for that region.

Chapter 22, “Aggregate Expenditure and Output in the Short Run,” opens with a new opener about how the business cycle affects manufacturers of recreational vehicles (RVs), such as Airstream, many of which are based in Elkhart, Indiana. A new section covers the volatility of consumer spending on durables, and new Table 22.1 summarizes the relationship between actual investment and planned investment.

Chapter 23, “Aggregate Demand and Aggregate Supply Analysis,” opens with a new discussion of the effect of the business cycle on General Motors and other auto manufacturers. A new *Apply the Concept* discusses whether there really is a business cycle.

Chapter 24, “Money, Banks, and the Federal Reserve System,” opens with a new discussion of the Venmo app, which allows people to send money to friends using their smartphones.

Chapter 25, “Monetary Policy,” opens with a new discussion of the organization of the Federal Reserve and Fed Chair Jerome Powell’s relationship with President Trump in 2019. Coverage of the financial crisis of 2007–2009 has been streamlined.

Chapter 26, “Fiscal Policy,” opens with a new discussion of the effects of fiscal policy on the growth rate of real GDP. A new *Apply the Concept* discusses modern monetary theory (MMT) and whether policymakers should worry about the national debt. New *Solved Problem* 26.6 explores how the Italian government confronts its budget deficit.

Chapter 27, “Inflation, Unemployment, and Federal Reserve Policy,” opens with a new discussion of the Fed’s challenge of meeting its dual mandate of low inflation and unemployment while dealing with political pressure from President Trump. A new *Apply the Concept* considers whether the Phillips curve has disappeared. There are two new sections in the chapter: One covers the recent debates about the future of the Federal Reserve, and another discusses whether the Fed should be independent of Congress and the president.

Chapter 28, “Macroeconomics in an Open Economy,” includes streamlined and updated content from two seventh edition chapters: Chapter 29 of the same title and Chapter 30, “The International Financial System.” The appendix on the gold standard and Bretton Woods that appeared in the seventh edition Chapter 30 is now an online appendix.

To make room for new content, we cut 21 *Apply the Concepts* and 9 *Solved Problems* from the previous edition and transferred some of them to the book's *Instructor's Manual*, where they are available for instructors who wish to continue using them. As noted earlier, as a result of market feedback and analysis of instructor assignments we moved three appendices to appear within MyLab Economics, cut one chapter, and streamlined and merged two chapters.

Solving Teaching and Learning Challenges

Many students who take a principles of economics course have difficulty seeing the relevance of key concepts such as opportunity cost, trade-offs, scarcity, and demand and supply to their lives and their careers. This reduces the willingness of some students to prepare for class and to be engaged during class. We address this challenge with contextual learning, a modern organization of content, engaging pedagogy, and an extensive selection of digital assets.

The Foundation: Contextual Learning and Modern Organization

We believe a course is successful if students can apply what they have learned to both their personal lives and their careers and if they have developed the analytical skills to understand what they see in the media. That's why we explain economic concepts by using many real-world business examples and applications in the chapter openers, graphs, *Apply the Concept* features, *An Inside Look* features, and end-of-chapter problems. This approach helps majors from all disciplines become educated consumers, voters, and citizens. In addition to our widget-free approach, we have a modern organization and place interesting policy topics early in the book to pique student interest.

Microeconomics

We are convinced that students learn to apply economic principles best if they are taught in a familiar context. Whether they become artists, social workers, business managers, engineers, bankers, or government employees, students benefit from understanding economics. We therefore use many diverse real-world business and policy examples to illustrate economic concepts. Here are a few highlights of our approach to microeconomics:

- **A strong set of introductory chapters.** The introductory chapters provide students with a solid foundation in the basics. We emphasize the key ideas of marginal analysis and economic efficiency. In Chapter 4, "Economic Efficiency, Government Price Setting, and Taxes," we use the concepts of consumer surplus and producer surplus to measure the economic effects of price ceilings and price floors as they relate to the familiar examples of rental properties and the minimum wage. (We revisit consumer surplus and producer surplus in Chapter 9, "Comparative Advantage and the Gains from International Trade," where we analyze government policies that affect trade, including the trade war that began in 2018; and in Chapter 15, "Monopoly and Antitrust Policy," where we analyze price discrimination and the effect of market power on economic efficiency.) In Chapter 8, "Firms, the Stock Market, and Corporate Governance," we provide students with a basic understanding of how firms are organized, raise funds, and provide information to investors. We also illustrate how in a market system entrepreneurs meet consumer wants and efficiently organize production.
- **Early coverage of policy issues.** To expose students to policy issues early in the course, we discuss trade policy and tariffs in Chapter 1, "Economics: Foundations and Models"; rent control and the minimum wage in Chapter 4, "Economic Efficiency, Government Price Setting, and Taxes"; air pollution, global warming, and public goods in Chapter 5,

“Externalities, Environmental Policy, and Public Goods”; government policy toward soda and other sweetened beverages in Chapter 6, “Elasticity: The Responsiveness of Demand and Supply”; and health care policy in Chapter 7, “The Economics of Health Care.”

- **Complete coverage of monopolistic competition.** We devote a full chapter, Chapter 13, “Monopolistic Competition: The Competitive Model in a More Realistic Setting,” to monopolistic competition prior to covering oligopoly and monopoly in Chapter 14, “Oligopoly: Firms in Less Competitive Markets,” and Chapter 15, “Monopoly and Antitrust Policy.” Although many instructors cover monopolistic competition very briefly or dispense with it entirely, we think it is an overlooked tool for reinforcing the basic message of how markets work in a context that is much more familiar to students than are the agricultural examples that dominate discussions of perfect competition. We use the monopolistic competition model to introduce the downward-sloping demand curve material usually introduced in a monopoly chapter. This approach helps students grasp the important point that nearly all firms—not just monopolies—face downward-sloping demand curves. Covering monopolistic competition directly after perfect competition also allows for early discussion of topics such as brand management and sources of competitive success. Nevertheless, we wrote the chapter so that instructors who prefer to cover monopoly (Chapter 15, “Monopoly and Antitrust Policy”) directly after perfect competition (Chapter 12, “Firms in Perfectly Competitive Markets”) can do so without loss of continuity.
- **Extensive, realistic game theory coverage.** In Chapter 14, “Oligopoly: Firms in Less Competitive Markets,” we use game theory to analyze competition among oligopolists. Game theory helps students understand how companies with market power make strategic decisions in many competitive situations. We use familiar companies such as Apple, Amazon, Dell, Spotify, and Walmart in our game theory applications.

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Students come to study macroeconomics with a strong interest in understanding events and developments in the economy. We capture that interest and develop students’ economic intuition and understanding by presenting macroeconomics in a way that is modern and based in the real world of business and economic policy. And we believe we achieve this presentation without making the analysis more difficult. We avoid the recent trend of using simplified versions of intermediate models, which are often more detailed and complex than what students need to understand the basic macroeconomic issues. Instead, we use a more realistic version of the familiar aggregate demand and aggregate supply model to analyze short-run fluctuations and monetary and fiscal policy. We also avoid the “dueling schools of thought” approach often used to teach macroeconomics at the principles level. We emphasize the many areas of macroeconomics where most economists agree. And we present throughout real business and policy situations to develop students’ intuition. Here are a few highlights of our approach to macroeconomics:

- **A careful discussion of macro statistics.** Many students pay some attention to the financial news and know that the release of statistics by federal agencies can cause movements in stock and bond prices. A background in macroeconomic statistics helps clarify some of the policy issues encountered in later chapters. In Chapter 18, “GDP: Measuring Total Production and Income,” and Chapter 19, “Unemployment and Inflation,” we provide students with an understanding of the uses and potential shortcomings of the key macroeconomic statistics, without getting bogged down in the minutiae of how the statistics are constructed. For instance, we discuss the important differences between the payroll survey and the household survey for understanding conditions in the labor market. We explain why financial markets react more strongly to news from the payroll survey. We provide a discussion of the employment–population ratio, which is not covered in some other texts but which many economists regard as a key measure of labor market performance.