

高等学校经济类双语教学推荐教材

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经济学经典教材·核心课系列

Economics
Classics

宏观经济学

Macroeconomics

(英文版·第七版)
(Seventh Edition)

安德鲁·B·亚伯 (Andrew B. Abel)

本·S·伯南克 (Ben S. Bernanke) 著

迪安·克劳肖 (Dean Croushore)

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· 北京 ·

出版说明

入世十年，我国已完全融入经济全球化的浪潮中。党的十六大确立了“引进来，走出去”的发展战略，使得“国际化”复合型人才的需求不断增加。这就对我国一般本科院校多年来所采取的单一语言（母语）教学提出了严峻挑战，经济类专业双语教学改革迫在眉睫。

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本系列教材主要有以下特点：

第一，教材体系设计完整。本系列教材全部为国外知名出版公司的优秀教材，涵盖了经济类专业的所有主要课程。

第二，保持英文原版教材特色。本系列教材依据国内实际教学需要以及广泛的适应性，部分对原版教材进行了全文影印，部分在保持原版教材体系结构和内容特色的基础上进行了适当删减。

第三，内容紧扣学科前沿。本系列教材在原著选择上紧扣国外教学前沿，基本上都是国外最流行教材的最新版本。

第四，篇幅合理、价格适中。本系列教材一方面在内容和篇幅上很好地适应了国内双语教学的实际需要，另一方面，低定价策略又避免了国外原版图书高额的购买费用。

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本系列教材既适合高等院校经济类专业的本科教学使用，也适合从事经济类工作和研究的广大从业者阅读和学习。我们在选书、改编过程中虽然全面听取了专家、学者和教师的意见，努力做到满足广大读者的需求，但由于各教材的作者所处的政治、经济和文化背景不同，书中内容仍可能有不妥之处，我们真诚希望广大读者提出宝贵意见和建议，以便我们在以后的版本中不断改进和完善。

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Preface

Since February 2006, Ben Bernanke has been chairman of the Board of Governors of the Federal Reserve System. Federal ethics rules prohibited him from making substantive contributions to the sixth and seventh editions.

In preparing the seventh edition, we viewed our main objective to be keeping the book fresh and up-to-date, especially in light of the recent crises in housing and financial markets and their impact on the macroeconomy. Thus, we have also added new applications, boxes, and problems throughout and made many revisions of the text to reflect recent events and developments in the field. In addition, the empirical problems at the end of most chapters direct students to appropriate data in the FRED database on the Web site of the Federal Reserve Bank of St. Louis. Because this database is frequently updated and is available free of charge, students will develop familiarity and facility with a current data source that they can continue to use after completing the course.

A summary of our revisions follows.

New and Updated Coverage

What is taught in intermediate macroeconomics courses—and how it is taught—has changed substantially in recent years. Previous editions of *Macroeconomics* played a major role in these developments. The seventh edition provides lively coverage of a broad spectrum of macroeconomic issues and ideas, including a variety of new and updated topics:

- **Monetary policy.** In response to the financial crisis in 2008, the Federal Reserve introduced new tools to prop up the financial system and to influence economic activity, so we have added a substantial amount of material to discuss many different aspects of these policy changes. In addition, because most central banks now rely primarily on targeting interest rates, we derive a new (horizontal) curve (the *LR* curve) in place of the *LM* curve and show how to use this modified *IS–LM* model to analyze monetary policy in the context of interest-rate targeting. These two major changes have led us to rewrite Chapter 14 on monetary policy substantially. *New or substantially revised coverage:* In Chapter 14 we now discuss the money multiplier during severe financial crises, comparing the money supply during the Great Depression to that from 2007–2009, illustrate the changes in the Federal Reserve’s balance sheet during the recent financial crisis, describe the Federal Reserve’s payment of interest on reserves, and expand our analysis of both the Taylor rule and inflation targeting.
- **Long-term economic growth.** Because the rate of economic growth plays a central role in determining living standards, we devote much of Part 2 to growth and related issues. We first discuss factors contributing to growth, such as productivity (Chapter 3) and rates of saving and investment (Chapter 4); then in Chapter 6 we turn to a full-fledged analysis of the growth process, using tools such as growth accounting and the Solow model. Growth-related topics covered include the post-1973 productivity slowdown, the factors that determine long-run living standards, and the productivity “miracle” of the 1990s. *Revised coverage:* Updated data and a discussion of the recent growth of China’s economy.

- *International macroeconomic issues.* We address the increasing integration of the world economy in two ways. First, we frequently use cross-country comparisons and applications that draw on the experiences of nations other than the United States. For example, in Chapter 3, we compare U.S. and European labor markets; in Chapter 6 we compare the long-term economic growth rates of several countries; in Chapter 7 we compare inflation experiences among European countries in transition; in Chapter 8 we compare the growth in industrial production in several countries; in Chapter 12 we compare sacrifice ratios among various countries; and in Chapter 14 we discuss strategies used for making monetary policy around the world. Second, we devote two chapters, 5 and 13, specifically to international issues. In Chapter 5 we show how the trade balance is related to a nation's rates of saving and investment, and then apply this framework to discuss issues such as the U.S. trade deficit and the relationship between government budget deficits and trade deficits. In Chapter 13 we use a simple supply–demand framework to examine the determination of exchange rates. The chapter features innovative material on fixed exchange rates and currency unions, including an explanation of why a currency may face a speculative run. *Revised coverage:* The text includes updated data comparing U.S. and European labor markets (Chapter 3) and a discussion of the impact of globalization on the U.S. economy (Chapter 5).
- *Business cycles.* Our analysis of business cycles begins with facts rather than theories. In Chapter 8 we give a history of U.S. business cycles and then describe the observed cyclical behavior of a variety of important economic variables (the “business cycle facts”). In Chapters 9–11 we evaluate alternative classical and Keynesian theories of the cycle by how well they explain the facts. *New to this edition:* The text now includes a description of the Fed's preferred inflation measures (Chapter 2), contains a discussion of the housing crisis that began in 2007 (Chapter 7), shows how the rate of job loss and job finding vary across the business cycle (Chapter 8), and presents new coincident indexes (Chapter 8).
- *Fiscal policy.* The effects of macroeconomic policies are considered in nearly every chapter, in both theory and applications. We present classical (Chapter 10), Keynesian (Chapter 11), and monetarist (Chapter 14) views on the appropriate use of policy. *New or substantially revised coverage:* The text now discusses evidence on how consumers respond to tax rebates (Chapter 2) and a description of the fiscal stimulus package of 2009 and its impact on the debt–GDP ratio (Chapter 15).
- *Labor market issues.* We pay close attention to issues relating to employment, unemployment, and real wages. We introduce the basic supply–demand model of the labor market, as well as unemployment, early, in Chapter 3. We discuss unemployment more extensively in Chapter 12, which covers the inflation–unemployment trade-off, the costs of unemployment, and government policies for reducing unemployment. Other labor market topics include household production and how it affects the business cycle (Chapter 10), efficiency wages (Chapter 11), and the effects of marginal and average tax rate changes on labor supply (Chapter 15). *New or substantially revised coverage:* The text now discusses in greater detail the degree to which jobs are lost and gained over the course of the business cycle, showing data based on recent research.

A Solid Foundation

The seventh edition builds on the strengths that underlie the book's lasting appeal to instructors and students, including:

- *Real-world applications.* A perennial challenge for instructors is to help students make active use of the economic ideas developed in the text. The rich variety of applications in this book shows by example how economic concepts can be put

to work in explaining real-world issues such as the housing crisis that began in 2007 and the financial crisis of 2008, the contrasting behavior of unemployment in the United States and Europe, the slowdown and revival in productivity growth, the challenges facing the Social Security system and the Federal budget, the impact of globalization on the U.S. economy, and new approaches to making monetary policy that were used in response to the financial crisis in 2008. The seventh edition offers new applications as well as updates of the best applications and analyses of previous editions.

- *Broad modern coverage.* From its conception, *Macroeconomics* has responded to students' desires to investigate and understand a wider range of macroeconomic issues than is permitted by the course's traditional emphasis on short-run fluctuations and stabilization policy. This book provides a modern treatment of these traditional topics but also gives in-depth coverage of other important macroeconomic issues such as the determinants of long-run economic growth, the trade balance and financial flows, labor markets, and the institutional framework of policymaking. This comprehensive coverage also makes the book a useful tool for instructors with differing views about course coverage and topic sequence.
- *Reliance on a set of core economic ideas.* Although we cover a wide range of topics, we avoid developing a new model or theory for each issue. Instead we emphasize the broad applicability of a set of core economic ideas (such as the production function, the trade-off between consuming today and saving for tomorrow, and supply–demand analysis). Using these core ideas, we build a theoretical framework that encompasses all the macroeconomic analyses presented in the book: long-run and short-run, open-economy and closed-economy, and classical and Keynesian.
- *A balanced presentation.* Macroeconomics is full of controversies, many of which arise from the split between classicals and Keynesians (of the old, new, and neo-varieties). Sometimes the controversies overshadow the broad common ground shared by the two schools. We emphasize that common ground. First, we pay greater attention to long-run issues (on which classicals and Keynesians have less disagreement). Second, we develop the classical and Keynesian analyses of short-run fluctuations within a single overall framework, in which we show that the two approaches differ principally in their assumptions about how quickly wages and prices adjust. Where differences in viewpoint remain—for example, in the search versus efficiency-wage interpretations of unemployment—we present and critique both perspectives. This balanced approach exposes students to all the best ideas in modern macroeconomics. At the same time, an instructor of either classical or Keynesian inclination can easily base a course on this book.
- *Innovative pedagogy.* The seventh edition, like its predecessors, provides a variety of useful tools to help students study, understand, and retain the material. Described in more detail later in the preface, these tools include summary tables, key diagrams, key terms, and key equations to aid students in organizing their study, and four types of questions and problems for practice and developing understanding, including problems that encourage students to do their own empirical work, using data readily available on the Internet. Several appendices illustrate how to solve numerical exercises that are based on the algebraic descriptions of the IS-LM/AS-AD model.

Additional Supplementary Resources

A full range of additional supplementary materials to support teaching and learning accompanies this book. All of these items are available to qualified

domestic adopters but in some cases may not be available to international adopters.

- The *Study Guide* provides a review of each chapter, as well as multiple-choice and short-answer problems (and answers).
- The *Instructor's Manual* offers guidance for instructors on using the text, solutions to all end-of-chapter problems in the book (except the empirical questions), and suggested topics for class discussion.
- The *Test Item File* contains a generous selection of multiple-choice questions and problems, all with answers. All questions and problems are also available in TestGen.
- *PowerPoint Lectures* provide slides for all the basic text material, including all tables and figures from the textbook.

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Introduction to Macroeconomics

1.1 What Macroeconomics Is About

Macroeconomics is the study of the structure and performance of national economies and of the policies that governments use to try to affect economic performance. The issues that macroeconomists address include the following:

- *What determines a nation's long-run economic growth?* In 1870, income per capita was smaller in Norway than in Argentina. But today, income per capita is about three times as high in Norway as in Argentina. Why do some nations' economies grow quickly, providing their citizens with rapidly improving living standards, while other nations' economies are relatively stagnant?
- *What causes a nation's economic activity to fluctuate?* The 1990s exhibited the longest period of uninterrupted economic growth in U.S. economic history, but economic performance in the 2000s was much weaker. A mild recession in 2001 was followed by a weak recovery that lasted only until December 2007. The recession that began at the end of 2007 was worsened by the financial crisis in 2008, which contributed to a sharp decline in output at the end of 2008 and in early 2009. Why do economies sometimes experience sharp short-run fluctuations, lurching between periods of prosperity and periods of hard times?
- *What causes unemployment?* During the 1930s, one-quarter of the work force in the United States was unemployed. A decade later, during World War II, less than 2% of the work force was unemployed. Why does unemployment sometimes reach very high levels? Why, even during times of relative prosperity, is a significant fraction of the work force unemployed?
- *What causes prices to rise?* The rate of inflation in the United States crept steadily upward during the 1970s, and exceeded 10% per year in the early 1980s, before dropping to less than 4% per year in the mid 1980s and dropping even further to less than 2% per year in the late 1990s. Germany's inflation experience has been much more extreme: Although Germany has earned a reputation for low inflation in recent decades, following its defeat in World War I Germany experienced an eighteen-month period (July 1922–December 1923) during which prices rose by a factor of several billion! What causes inflation and what can be done about it?
- *How does being part of a global economic system affect nations' economies?* In the late 1990s, the U.S. economy was the engine of worldwide economic growth. The wealth gained by Americans in the stock market led them to increase their spending on consumer goods, including products made abroad, spurring greater economic activity in many countries. How do economic links among

nations, such as international trade and borrowing, affect the performance of individual economies and the world economy as a whole?

- *Can government policies be used to improve a nation's economic performance?* In the 1980s and 1990s, the U.S. economy's output, unemployment rate, and inflation rate fluctuated much less than they did in the 1960s and 1970s. Some economists credit good government policy for the improvement in economic performance. In the financial crisis of 2008, the Federal Reserve and the federal government used extraordinary measures to keep banks and other financial institutions from failing. But some economists criticized these measures for going too far in trying to stabilize the economy, at the expense of creating incentives for increased risk taking by financial firms. How should economic policy be conducted so as to keep the economy as prosperous and stable as possible?

Macroeconomics seeks to offer answers to such questions, which are of great practical importance and are constantly debated by politicians, the press, and the public. In the rest of this section, we consider these key macroeconomic issues in more detail.

Long-Run Economic Growth

If you have ever traveled in a developing country, you could not help but observe the difference in living standards relative to those of countries such as the United States. The problems of inadequate food, shelter, and health care experienced by the poorest citizens of rich nations often represent the average situation for the people of a developing country. From a macroeconomic perspective, the difference between rich nations and developing nations may be summarized by saying that rich nations have at some point in their history experienced extended periods of rapid economic growth but that the poorer nations either have never experienced sustained growth or have had periods of growth offset by periods of economic decline.

Figure 1.1 summarizes the growth in output of the U.S. economy since 1869.¹ The record is an impressive one: Over the past century and a third, the annual output of U.S. goods and services has increased by more than 100 times. The performance of the U.S. economy is not unique, however; other industrial nations have had similar, and in some cases higher, rates of growth over the same period of time. This massive increase in the output of industrial economies is one of the central facts of modern history and has had enormous political, military, social, and even cultural implications.

In part, the long-term growth of the U.S. economy is the result of a rising population, which has meant a steady increase in the number of available workers. But another significant factor is the increase in the amount of output that can be produced with a given amount of labor. The amount of output produced per unit of labor input—for example, per worker or per hour of work—is called **average labor productivity**. Figure 1.2 shows how average labor productivity, defined in this case as output per employed worker, has changed since 1900. In 2008, the average U.S. worker produced more than six times as much output as the average worker at the beginning of the twentieth century, despite working fewer hours over the course of the year. Because today's typical worker is so much more productive, Americans enjoy a significantly higher standard of living than would have been possible a century ago.

Although the long-term record of productivity growth in the U.S. economy is

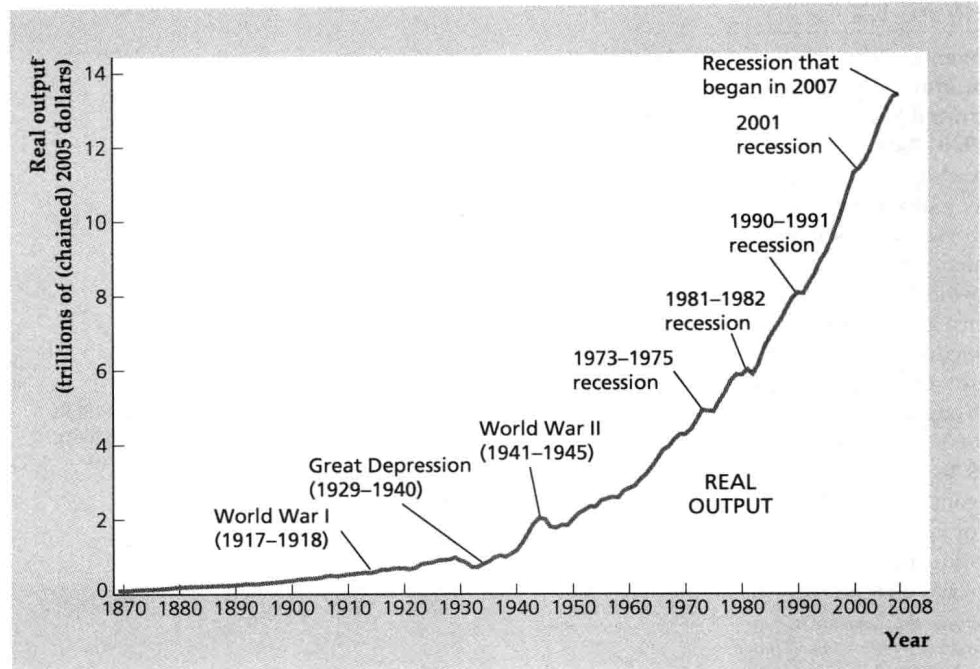
¹Output is measured in Fig. 1.1 by two very similar concepts, real gross national product (real GNP) until 1929 and real gross domestic product (real GDP) since 1929, both of which measure the physical volume of production in each year. We discuss the measurement of output in detail in Chapter 2.

Figure 1.1

Output of the U.S. economy, 1869–2008

In this graph the output of the U.S. economy is measured by real gross domestic product (real GDP) for the period 1929–2008 and by real gross national product (real GNP) for the period prior to 1929, with goods and services valued at their 2005 prices in both cases (see Chapter 2). Note the strong upward trend in output over time, as well as sharp fluctuations during the Great Depression (1929–1940), World War II (1941–1945), and the recessions of 1973–1975, 1981–1982, 1990–1991, 2001 and 2007.

Sources: Real GNP 1869–1928 from Christina D. Romer, “The Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869–1908,” *Journal of Political Economy*, 97, 1 (February 1989), pp. 22–23; real GDP 1929 onward from FRED database, Federal Reserve Bank of St. Louis, research.stlouisfed.org/fred2/series/GDP. Data from Romer were rescaled to 2005 prices.



excellent, productivity growth slowed from the early 1970s to the mid-1990s and only recently has picked up. Output per worker grew about 2.5% per year from 1949 to 1973, but only 1.1% per year from 1973 to 1995. More recently, from 1995 to 2008, output per worker has increased 1.7% per year, a pace that has improved the health of the U.S. economy significantly.

Because the rates of growth of output and, particularly, of output per worker ultimately determine whether a nation will be rich or poor, understanding what determines growth is one of the most important goals of macroeconomics. Unfortunately, explaining why economies grow is not easy. Why, for example, did resource-poor Japan and Korea experience growth rates that transformed them in a generation or two from war-torn nations into industrial powers, whereas several resource-rich nations of Latin America have had erratic or even negative growth in recent years? Although macroeconomists have nothing close to a complete answer to the question of what determines rates of economic growth, they do have some ideas to offer. For example, as we discuss in some detail in this book, most macroeconomists believe that rates of saving and investment are important for growth. Another key determinant of growth we discuss is the rate at which technological change and other factors help increase the productivity of machines and workers.

Business Cycles

If you look at the history of U.S. output in Fig. 1.1, you will notice that the growth of output isn't always smooth but has hills and valleys. Most striking is the period between 1929 and 1945, which spans the Great Depression and World War II. During the 1929–1933 economic collapse that marked the first major phase of the Great Depression, the output of the U.S. economy fell by nearly 30%. Over the period 1939–1944, as the United States entered World War II and expanded production of armaments, output nearly doubled. No fluctuations in U.S. output since 1945 have been as severe as those of the 1929–1945 period. However, during the postwar era there have been periods of unusually rapid economic growth, such as during the 1960s and 1990s, and times during which output actually declined from one year to the next, as in 1973–1975, 1981–1982, and 1990–1991.