


Contemporary Macroeconomics



The most consistently reported economic news relates to the overall health of the economy, and, especially, to employment conditions. The media pay careful attention to monthly and quarterly statistics on such measures as the inflation rate, the unemployment rate, and the growth rate in gross domestic product (GDP). Government economic policies to remedy macroeconomic problems are also heavily reported.

Topics such as the real rate of growth in the economy may seem abstract and distant, but they do have an immediate and lasting impact on individual economic well-being. Economists have spent more than 200 years seeking to understand how conditions in the macroeconomy—the economy as a whole—shape our lives.

Think for a moment about how the major macroeconomic issues—inflation, unemployment, and growth—are likely to influence your future. Will economic conditions affect your ability to repay your college loan? Will you enter the job market during a time of high unemployment? Will your hopes for a high-paying job, a comfortable home, a promising future for your children be realized? How will government deficits or surpluses affect your future economic welfare? The study of macroeconomics can better equip you to plan for the future. This chapter presents an overview of basic macroeconomic policy goals and introduces much of the terminology employed by macroeconomists. When you complete Chapter 19 you should understand

- the overall goals of macroeconomic policy and the trade-offs among goals.
- the nature of unemployment and inflation, and their effects on economic growth.

- how, in general terms, fiscal and monetary policies are used to achieve the goals of macroeconomic policy.
- the essential tools of aggregate demand and aggregate supply that economists use to analyze the macroeconomy.

THE GOALS OF MACROECONOMICS

In Chapter 1 we defined *macroeconomics* as the analysis of the economy as a whole. When working with macroeconomic theory, the focus is on what economists call aggregate quantities. Macroeconomics concerns not just one market but all markets; not just one price change but all price changes; not just one firm's employees but all employment.

As with any discipline, the field of macroeconomics is made up of many specialized areas, competing theories, and ongoing debates. Consistent throughout macroeconomics, however, is a shared set of goals. Both macroeconomists and the politicians who heed (or disregard) their advice are interested in achieving three separate, sometimes conflicting, objectives: full employment, price stability, and economic growth. Indeed, economists are at the ready as advisers in how government might achieve these goals (see the Application “One-Handed Economists: The President’s Council of Economic Advisers” at the conclusion of this chapter). We discuss each of these goals separately, but you will soon see that they are closely intertwined.

The Full-Employment Goal

Full employment is a primary goal of any economic society for obvious reasons. The more fully resources are employed, the greater the levels of output of goods and services, and the higher the prosperity.

Social Concern over Unemployment Not only does high unemployment threaten to bring poverty to millions of citizens, but it also can lead to political upheaval. During the Great Depression of the 1930s, for example, signs of social and political unrest appeared in the United States. Farmers marched on Washington, D.C., makeshift camps of the poor and out-of-work dotted the nation's cities, and mass migrations of the jobless from the Dust Bowl of the Midwest to the Promised Land of California took place. When World War II mobilized the economy, full employment was restored before serious political and social upheaval could erupt.

Other nations of the world have experienced similar upheavals. Consider the frequent changes of government and political systems in developing nations, where poverty—much of it caused by widespread unemployment—is rampant. Increased crime and even violent revolution can result from failure to attain the macroeconomic goal of full employment.

The purely human costs of unemployment on individuals, families, and society itself can be devastating. Unemployment is a primary cause of poverty, dislocations of families, and, in extreme cases, homelessness. It puts extraordinary pressure on social and welfare services that are funded with taxes. More important, unemployment represents resources *not used* to produce goods and services—perhaps the ultimate inefficiency.

In recognition of the social and political implications of unemployment, the U.S. government passed the Employment Act of 1946 on the heels of the Depres-

sion and World War II. The act recognized and enshrined maximum employment as a macroeconomic goal of the federal government. The meaning of the term *maximum employment* has been modified in the intervening years, but policy-makers still respect the intent, if not the letter, of the law. Unemployment rates of 10 percent and more, for example, which characterized the U.S. economy in 1982 and 1983, brought great concern to the U.S. Congress and to the Reagan administration. In 1992, unemployment rates of around 8 percent were a factor in the defeat of President George Bush by Bill Clinton. By 1999, the unemployment rate was hovering below 5 percent.

In all nations, the goal of full employment is critical. Social programs such as unemployment compensation and food stamps ease the burden of unemployment, but they cannot substitute for the economic benefits of full employment.

Defining the Levels of Employment and Unemployment Some unemployment in specific markets is always expected. In a dynamic economy, demand grows for some goods and services and declines for others. In recent years, for example, the demand for high-technology outputs such as microcomputers, lasers, and fiber optics has outpaced demand for the products of heavy industry, and temporary unemployment in heavy industries such as steel and machine tools has been very high. Some workers may develop new skills, however, and temporarily unemployed resources may flow into new areas of production.

From a macroeconomic perspective, there is little reason to be concerned with the temporary periods of unemployment that workers in specific fields experience as the economy undergoes change. In such cases, **unemployed** workers generally remain out of work for relatively brief periods of time before they succeed in obtaining another job. However, there is reason for concern when numerous workers in many different industries simultaneously become unemployed. When this happens, output levels fall far below potential, and families of the unemployed workers experience real hardship over extended periods of time. For this reason, the federal government keeps close tabs on the **unemployment rate** each month.

The labor force is therefore defined as the total of employed and unemployed persons. To calculate the unemployment rate, the number of unemployed persons is divided by the total labor force. Table 19.1 presents data on the unemployment rate, the number of unemployed workers, and the size of the labor force for the period 1975–1998. The Bureau of Labor Statistics also breaks down the unemployment rate into rates for various demographic groups to show the *differing rates* of unemployment for particular groups in the economy. Figure 19.1 shows the total unemployment rate in the U.S. economy for the period 1960–1998 and the corresponding unemployment rates by race, sex, and age. Some facts about the composition of the unemployment rate are apparent: (1) Minority groups have experienced a higher unemployment rate than whites, (2) teenagers in the 16–19 age group have experienced a higher unemployment rate than any other age group, and (3) women over 20 years of age have generally experienced higher unemployment rates than men of the same age.

Despite the presence of unemployment, **full employment** remains a political goal. As we have seen, the Employment Act of 1946 charged the federal government with the responsibility of promoting maximum employment. In 1978, Congress passed the Full Employment and Balanced Growth Act, which committed the government to full employment, defined as an unemployment rate of 4 percent. The goals of the act have been modified (unemployment allowed upward) in the intervening years.

Unemployed

A labor-force status characterized by an individual who is actively seeking employment but is not working.

Unemployment rate

The percentage of the labor force without jobs.

Full employment

A situation in which unemployment exists only because of normal market adjustments to changing demand or supply or to outmoded skills of workers; also a numerical federal government goal for the unemployment rate.

TABLE 19.1

Unemployment, the Unemployment Rate, and the National Labor Force, 1975–1998

The number of unemployed persons, along with the unemployment rate, varies over time. Both the total number and the rate decreased between 1992 and 1995.

Year	Unemployment Rate (percent)	Unemployment (thousands of persons)	Civilian Labor Force (thousands of persons) ^a
1975	8.5	7,929	93,775
1976	7.7	7,406	96,158
1977	7.1	6,991	99,009
1978	6.1	6,202	102,251
1979	5.8	6,137	104,962
1980	7.1	7,637	106,940
1981	7.6	8,273	108,670
1982	9.7	10,678	110,204
1983	9.6	10,717	111,550
1984	7.5	8,539	113,544
1985	7.2	8,312	115,461
1986	7.0	8,237	117,834
1987	6.2	7,425	119,865
1988	5.5	6,701	121,669
1989	5.3	6,528	123,869
1990	5.5	6,874	124,787
1991	6.7	8,426	125,303
1992	7.4	9,384	126,982
1993	6.8	8,734	128,040
1994	6.1	7,996	131,056
1995	5.6	7,404	132,304
1996	5.4	7,236	133,943
1997	4.9	6,739	136,297
1998	4.5	6,210	137,673

Source: Council of Economic Advisers, *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1999), pp. 368, 376, 378.

^aAge 16 and over

Natural rate of unemployment

A theoretical concept; the unemployment rate that coexists with macroeconomic stability or labor-market equilibrium in the long run.

How can full employment be defined as allowing for any unemployment? Some economists feel that there is a **natural rate of unemployment** (or employment), the rate that would exist under long-run equilibrium conditions because of the time needed for adjustments in the labor market, the lag in matching vacancies and workers, the costs of hiring and firing and of changing jobs, regulations affecting structural changes in labor markets, and so forth. Market forces and institutions, not individuals, determine the natural rate of unemployment at any given time. The actual rate of unemployment can be compared with the theoretical con-

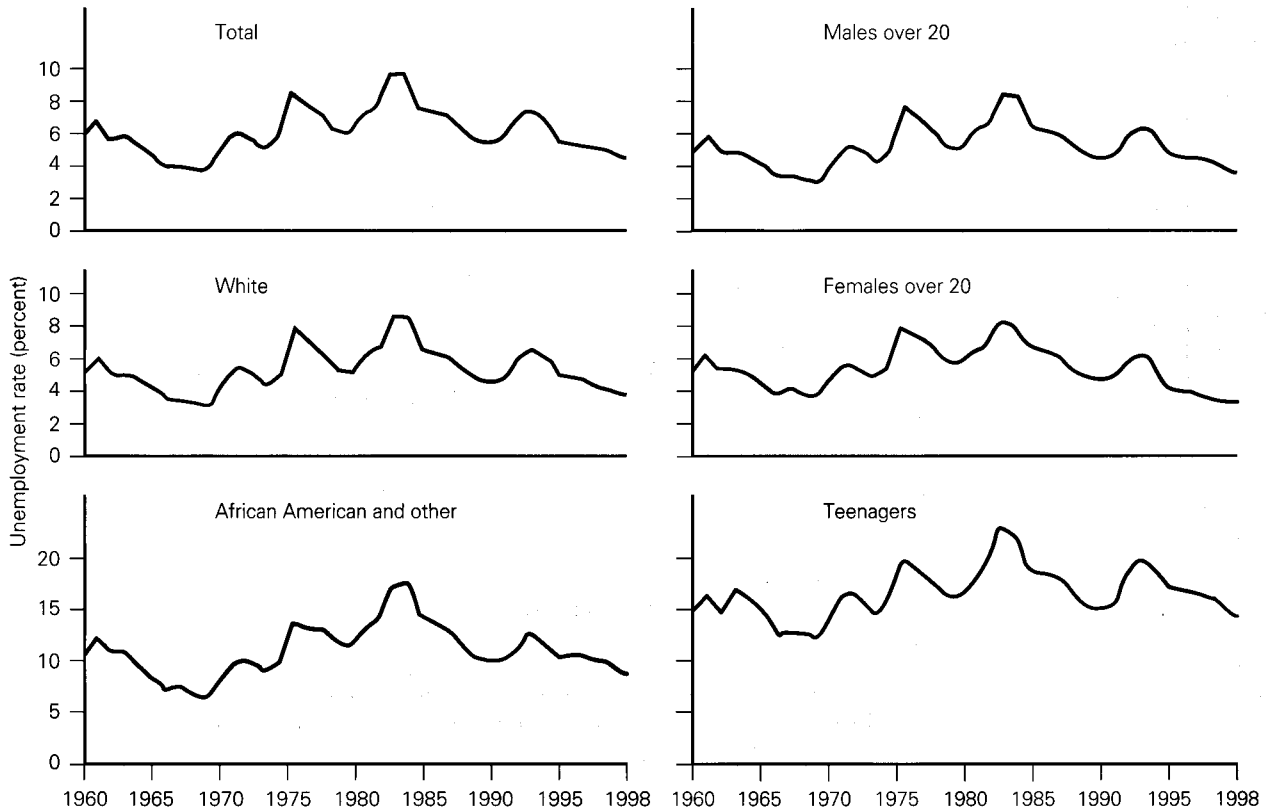


FIGURE 19.1

Unemployment Rates, 1960–1998

The unemployment rate (the number of persons unemployed divided by the labor force) rises and falls with other economic activity. However, African Americans and teenagers consistently have higher rates of unemployment than other groups.

cept of the natural rate, as in Figure 19.2. Note that the actual unemployment rate has fluctuated around the natural rate, with cycles of business activity producing unemployment below the natural rate in some periods and above the rate in other periods. In the most direct sense, macroeconomics deals with why the actual rate of unemployment differs from the natural rate and with what might cause the natural rate to change over time.

Economists debate, sometimes hotly, what the appropriate level of full employment is. In fact, the unemployment rate has fallen only twice below 5 percent since 1973 (in 1997 and 1998), and many economists now think that the “full-employment” unemployment rate should be in the 5–7 percent range, a range close to the theoretical concept of the natural rate of unemployment.

Price stability

A situation of no inflation or deflation in the economy; no change in the overall level of prices of goods, services, and resources.

The Goal of Price Stability

The second major macroeconomic goal is **price stability**—the absence of inflation or deflation in the overall level of prices. Inflation is a process of price level increases that take place over time. Inflation can be stable and predictable or

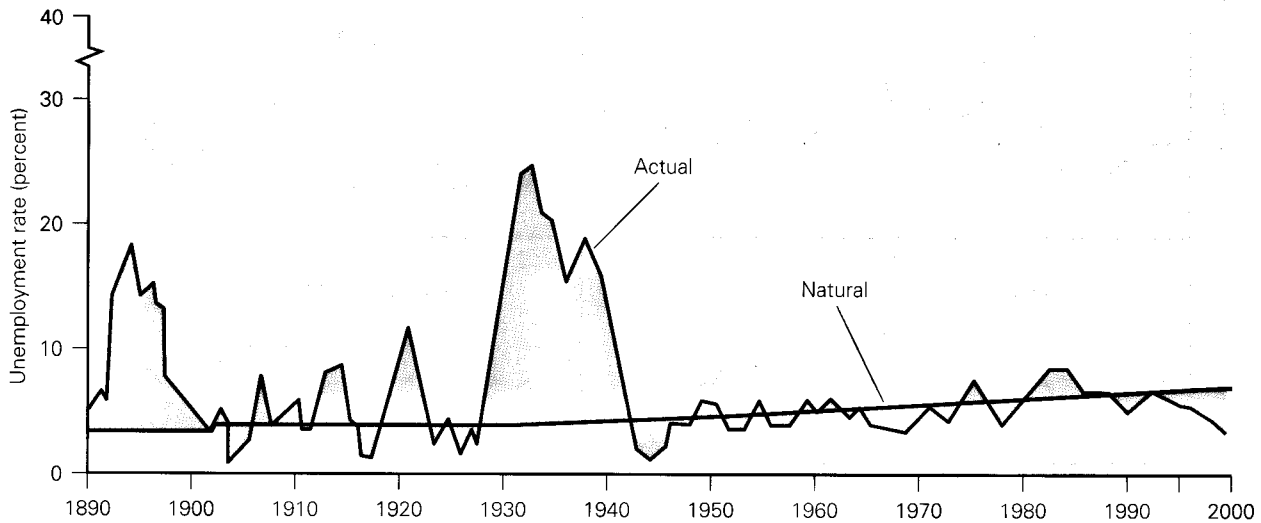


FIGURE 19.2

Rate of Unemployment, 1890–1998

The actual rate of unemployment has fluctuated widely since 1890. The unemployment rate rose to dangerous levels during the 1930s but has stayed within narrower limits since World War II. The actual unemployment rate has fluctuated around the natural rate of unemployment, a theoretical concept that depends on the situations and institutions surrounding the demand and supply of labor.

unstable and unanticipated—in either case, bringing higher costs to consumers and producers, and to buyers and sellers. Inflation is far more disruptive when it arrives unannounced, however.

Inflation is not simply a rise in the price of gasoline or chicken. Rather, inflation is a macroeconomic situation characterized by sustained and continuous increases in the overall level or average of all prices. One way to measure inflation is to look at the average of prices for some representative collection, or market basket, of goods and services that people buy. An increase in this average, or general, level of prices over some given time period (a month or a year) indicates the presence of inflation in the economy.

Suppose that food was the only good people bought. A 2 percent increase in the average level of food prices during the month of March means that the consumer must spend \$1.02 at the end of March to buy the same market basket of food items that \$1.00 would purchase in February. Never mind that bacon prices actually fell in March and that potato chip prices rose by 10 percent. Inflation is measured by considering the average prices of some representative bundle of goods at some given level—such as the retail, wholesale, or producer level.

If the cost of some market basket of goods and services was, say, \$200 in one month and \$210 in the next month, then prices in general would have risen by 5 percent during the month. When the change in prices over any period of time (a month here) is expressed as a percentage, the number calculated is called the **inflation rate**. The inflation rate is the speed at which prices in general are increasing. In this example, the inflation rate calculated is 5 percent per month. If prices continued to increase at the same speed for an entire year, the inflation rate would be

Inflation rate

The percentage change in the average level of prices over a period of time; the speed at which prices in general are rising.

80 percent per year (5 percent per month compounded for 12 months). A statistic calculated by the federal government's Bureau of Labor Statistics, called the consumer price index (CPI), is used to measure the overall average level of prices in the United States. By calculating the percentage changes in the CPI, the inflation rate in the U.S. economy can be measured. (The CPI will be explained and discussed fully in Chapter 20.)

Deflation

Sustained decreases in the average level of prices.

Deflation is a decrease in the general price level. Since World War II, price instability has been due to inflation rather than deflation. During the 1970s, for example, the United States experienced double-digit inflation rates reaching almost 14 percent per year in 1980.

Certainly we have plenty of evidence that inflation can get out of hand. Like severe unemployment, runaway inflation can wreak havoc in a society, causing social and political disintegration. A classic example occurred in post-World War I Germany when the inflation rate was as high as thousands of percentage points *per day*. Eventually, the German mark was worth more as paper—it was actually used as wallpaper—than as money. As a result, goods disappeared from markets and people starved. Looking farther back in time, economic historians claim to have evidence that runaway inflation was partly responsible for the breakdown of the Roman Empire's economic and political institutions.

Many of the costs of inflation and deflation can be traced to the inability of various economic institutions to adjust quickly to unanticipated price changes. When inflation is fully anticipated, adjustments can be made in personal savings for education, retirement, or vacations; tax codes; and financial contracts. But when inflation is unanticipated, adjustments become costly and difficult. People who live on fixed incomes—many of them elderly and poor to begin with—are particularly hard hit by inflation, as we will see in Chapter 29.

Historically, inflation has been a problem in the United States during postwar periods. Even then, as Figure 19.3 shows, the inflation rate has seldom risen above 10 percent per year. In the period of inflation following the Vietnam War, the inflation rate rose to 13.5 percent in 1980, before falling sharply. Other countries have had much worse inflation problems in recent years. For example, the inflation rate in Argentina and Brazil reached annual levels in excess of 1000 percent during the 1980s. In Bolivia, the annual inflation rate exceeded 20,000 percent in 1985. In the 1980s, Mexico had inflation rates in excess of 150 percent but has since adopted policies that sharply reduced the inflation rate, to less than 25 percent per year. Inflation in the United States has remained generally low in the 1990s, approximating 3 percent in 1995 and only 1.6 percent in 1998.

Even when the rate of inflation stands at relatively modest levels, it can pose problems for the economy. First of all, inflation has peculiar redistributive effects. That is, it enhances some people's real incomes at the expense of others'. **Real income** is the quantity of goods and services that can be bought with an individual's **nominal**, or money, **income**. In other words, real income is the real purchasing power of one's nominal income. For example, if a person was earning \$10,000 per year in 1975 and continued to do so in 2000, a modest inflation rate of 6 percent per year from 1975 to 2000 would mean that the person's real income, or purchasing power, would have fallen by well over 50 percent, even though his nominal income remained the same. This loss of real income is all too familiar to people on fixed money incomes—those on fixed pension plans, for example. When prices of the goods and services consumed by these groups rise, but their nominal incomes remain the same or do not rise as fast as prices, the real income of these consumers

Real income

The purchasing power of money income; the quantity of goods and services that money income can buy.

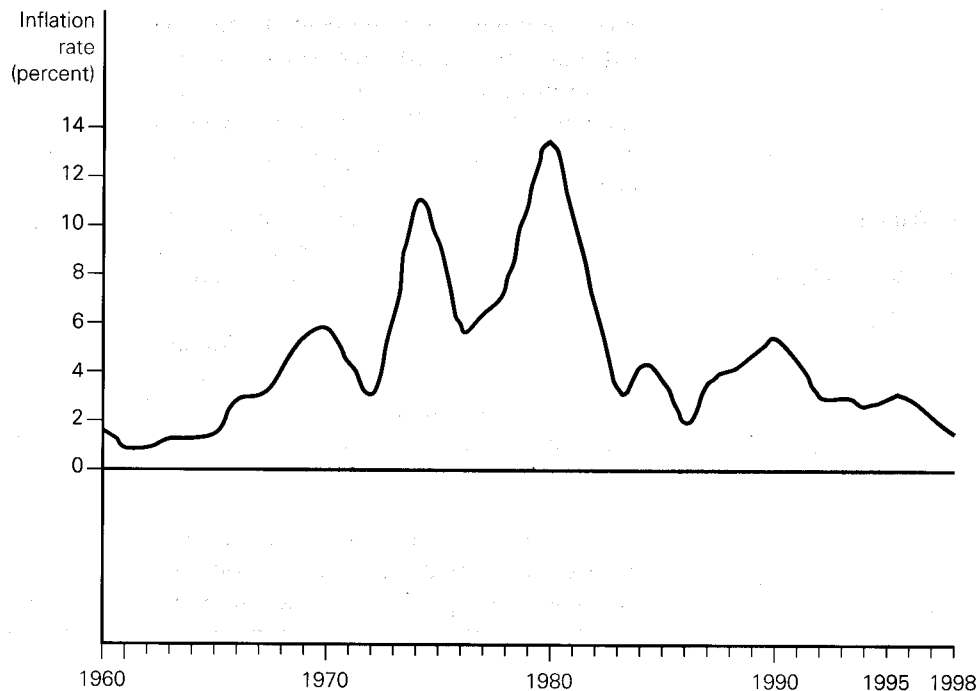
Nominal income

Income measured in terms of money, not in terms of what the money can buy.

FIGURE 19.3**The Rate of Inflation, 1960–1998**

The inflation rate is measured by calculating the yearly percentage change in the consumer price index. Inflation rates varied greatly over the period 1960–1998, although the trend since 1960 has been toward a higher average rate of inflation. Notice, however, the downward trend in the inflation rate since 1980.

Source: Council of Economic Advisers, *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1999), p. 399.



falls. Naturally, consumers whose income is rising at a faster rate than prices are better off during inflationary periods. Under such circumstances, arbitrary redistributions take place, with those on fixed incomes bearing the costs.

Uncertainty about future prices also results from price instability. Debtors and creditors, for instance, must guess at future prices and charge or pay interest rates that may or may not cover the real change in the value of money. Inflation also disrupts decisions of producers and consumers. Consumers' expectations about future prices and future real incomes are especially important. Consumers may adjust to their expectations, buying today if they expect prices to push higher tomorrow or if they think that inflation will reduce purchasing power in the future. (Likewise, if consumers expect deflation at some point in the future—far less likely, given U.S. experience—they would be more likely to postpone purchases, especially of durable goods.) While fully expected inflation may cause some transaction costs, unanticipated inflation and an unstable, unpredictable inflation rate greatly disrupt the plans of buyers and sellers. Before 1981, consumers also faced the possibility of real income erosion due to the tax structure. When nominal income increased as a result of attempts to maintain real income, income earners were forced into higher tax brackets. This “bracket creep” occurred because tax rates have been levied on money income received, not on real income earned. **Tax indexation** is one way to curb this detrimental effect of inflation. Under tax indexation, the federal tax tables are tied to the inflation rate. Tax indexation was first implemented in 1981, was preserved in the Tax Reform Act of 1986, and continues in the 1990s.

Tax indexation

The basing of income taxes on real income instead of nominal income.

Producers are also profoundly affected by unanticipated inflation. With uncertainty about inflation, producers may withhold output of goods and services from the market. Under extreme uncertainty, the plans of investors and business entre-

preneurs can be badly upset, causing postponement or abandonment of projects that enhance employment and economic growth. High, unpredictable rates of inflation help explain the low rates of capital formation and slow economic growth in some developing nations.

The Objective of Economic Growth

The third major macroeconomic issue is growth in the economy. **Economic growth** refers to any increase in the productive capacities of the economy, whether as a result of an increase in the labor supply, an increase in the productivity of labor (the output per worker), or a net increase in the quality or quantity of the nation's capital stock, the wherewithal of production.

The labor supply grows through increases in population, immigration, or the number of people willing to work. Increased productivity of labor in output per worker is achieved through improvements in education and human capital or through a higher quantity and quality of capital stock supplied to labor. Writers and secretaries, for instance, may increase their productivity by switching from typewriters to word processing systems. Additions to the nation's capital stock are made through new investment in capital goods—word processors in offices, machines in factories. This investment arises from another macroeconomic variable, private saving. To save, individuals must forgo present consumption. Under favorable economic conditions, when the two goals of price level stability and full employment are achieved, any given rate of private saving is more likely to generate more new investment, capital formation, and economic growth than would otherwise be the case.

Real economic growth, measured in terms of change in **gross domestic product (GDP)**, has averaged about 3 percent per year in the United States over the past hundred years. However, this rate of growth has slowed somewhat in the last two decades. Another related problem in recent U.S. experience has been slowed growth in productivity—a reduction in growth of the ratio of total output to the number of employed workers. While the reasons for a slowdown in productivity growth are complex—as are the relations between economic growth and changes in productivity—one major problem has been a reduced rate of technological development in the United States. Reduced productivity may translate into much slower economic growth in the future and a lessened standard of living for Americans.

The effects of these slower growth rates are not immediately apparent. However, the cumulative effect of a slower growth rate can become staggeringly large in just a generation. For example, if a country's rate of growth is 8 percent per year instead of 10 percent per year, real GDP will be only half as large within 36 years as it would have been at the slightly higher annual rate. Except for the period of the Great Depression, for over 100 years each generation of Americans has had reason to believe that it would have a markedly higher standard of living than the preceding generation. If U.S. productivity and economic growth fall to low levels, this expectation may no longer be realistic for many Americans. Figure 19.4 shows two measures of aggregate economic growth between 1960 and 1998. One line measures **nominal GDP**; the other line, **real GDP**. Nominal GDP for each of the years is measured in terms of prices that prevail in that year. Therefore, increases in nominal GDP can be caused either by increases in output or by increases in prices. Real GDP is a measure of the economy's output adjusted for general price level changes. The measures of real GDP in Figure 19.4 reflect the quantities of

Economic growth

A sustained increase in the overall productive capacity of an economy over time.

Gross domestic product (GDP)

A measure of the final goods and services produced by a country with resources located within that country.

Nominal GDP

The total production of final goods and services within a country measured in monetary units that have not been adjusted for changes in the price level.

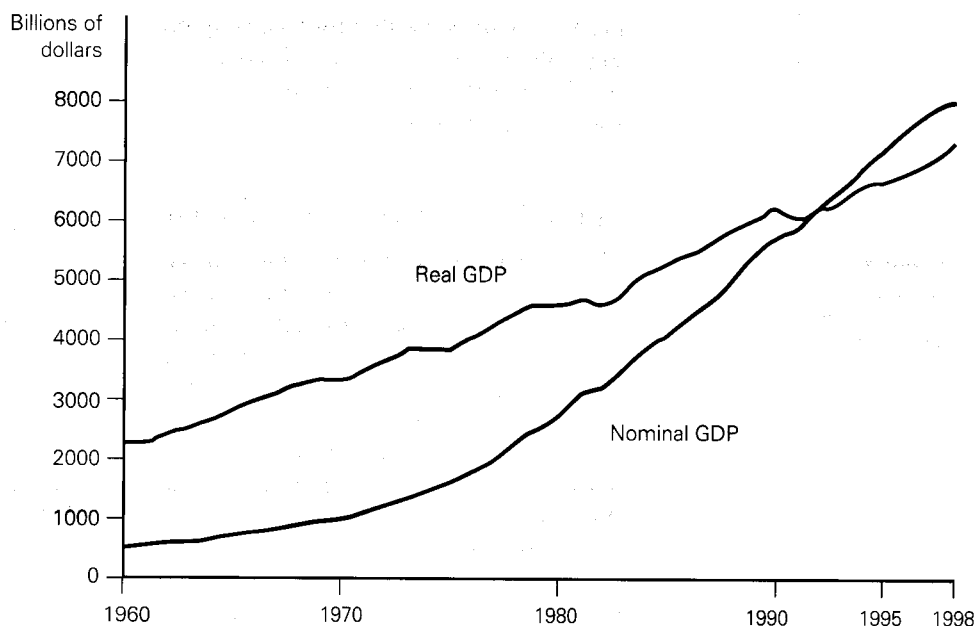
Real GDP

The total production of final goods and services within a country measured in monetary units that have been adjusted for changes in the price level.

FIGURE 19.4**Real and Nominal GDP**

The black line shows the rising level of nominal GDP. Most of this increase is caused by rising prices. The colored line shows the trend in real GDP by removing the effects of inflation on prices. Real GDP, in other words, rises less rapidly in terms of constant 1992 dollars.

Source: Council of Economic Advisers, *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1999), pp. 326, 328.



goods that are produced in the various years in constant dollars, or in prices that existed in some given year (1992 in Figure 19.4).

The distinction between real GDP and nominal GDP is important: Price changes cloud the picture of the value of output over time. Nominal GDP can increase between any two years even if production levels fall, because the effect of rising prices can offset the effect of reduced production on nominal GDP. Therefore, we focus on real GDP, not nominal GDP, in measuring the rate of economic growth.

Global Objectives

A final goal of U.S. macroeconomic policy is to maximize domestic economic well-being through international trade. As noted in Chapter 2, international output can be maximized by employing the principles of specialization, comparative advantage, and trade. Under these principles, one macroeconomic goal—for the United States or for any other country—is to achieve balance between exports and imports. A huge and growing volume of trade will maximize domestic production for exports, increase domestic employment of labor, and create demands for all other resource inputs, including capital and land.

The United States is a relative newcomer on the trade scene. Countries such as Switzerland, the United Kingdom, France, and Germany have a great deal of experience with international trading arrangements. The vast size of the United States makes its involvement in trade of great significance, but until recently, the international sector (imports and exports) made up a relatively small portion of total economic activity in the United States. Only thirty years ago, less than 4 percent of all of the goods purchased by Americans were imported. In 1998, about 10 percent of all goods purchased by Americans were imported. Many more goods, including automobiles and computers, contain imported components.

Media coverage of trade “deals,” free trade agreements, and the value of the dollar in relation to other currencies all suggest that trade relations have become important to the average American. Changes in technology, capital investments, and resource prices are constantly altering trade patterns. One goal of macroeconomic policy in the United States is to take maximum advantage of trade opportunities within an overall system of balanced world trade relations.

STABILITY, GROWTH, AND BUSINESS CYCLES

Economic stabilization

A situation in which the price level and the unemployment rate vary from desired levels only temporarily and by small amounts.

The overall goal of macroeconomic policy is to achieve **economic stabilization**. By stabilization, we do not mean *no* economic growth. Instead, the term describes an environment in which price changes (resulting either from inflation or from deflation) are moderate and in which the unemployment rate differs little from the full-employment level. In such an environment, the prices of individual goods will change, leading to changes in employment levels, as existing industries grow and contract and as new industries arise. However, neither a persistent change in the price level nor excessive unemployment will upset overall consumption and production and disrupt economic growth under stabilization.

Economic stability thus means the achievement of full employment under inflationless or near inflationless conditions to attain maximum economic growth in the present and future. Stabilization is a tall order in a modern economy, where economic activity is subject to fluctuations. These fluctuations, called **business cycles**, are the result of severe variations in the plans of buyers and sellers beyond those variations necessary for changes and improvements in production and consumption.

Business cycles

Recurrent, systematic fluctuations in the level of business activity; usually measured by changes in the level, or rate of growth, of real GDP over time.

Business cycles are made up of, at one extreme, peaks and, at the other extreme, recessions or depressions. At the peak of a business cycle, the economy is expanding rapidly, with employment at or near capacity. In a recession or depression, resources—especially human resources—are grossly underused. In the expansionary phase of a cycle, increased demand for goods and services causes rapidly increasing demand for all resources, putting pressure on the supplies of labor, capital, and raw materials. One signal that the economy is in the expansionary phase is that business inventories are rapidly being depleted. This period of a business cycle is often characterized by increased inflation, as business activity and employment expand. After the peak of the cycle, the economy enters a contractionary phase. As production of goods exceeds demand for them, inventories build up—one signal of contraction. This phase is characterized by stable or falling prices, excess production capacities, and unemployment. When depression or recession is reached, the economy experiences negative real economic growth rates and stagnation. When recovery is relatively quick in arriving, the period of stagnation is termed a *recession*. A *depression* is a longer, more damaging period of stagnation. Eventually, however, growing demand for goods and services will pull the economy out of any slump. Figure 19.5 shows cycles of business activity as measured by real GDP growth rates since 1960. Figure 19.6 illustrates a typical business cycle.

The goals of macroeconomic policy are to even out or counterbalance the opposing forces of the business cycle. Such policy is therefore called countercyclical policy. Its role is to counter the business cycle to produce inflationless economic growth with full employment. The role of macroeconomic and monetary theory is to understand the causes of changes in business activity—that is, the causes of the business cycle.

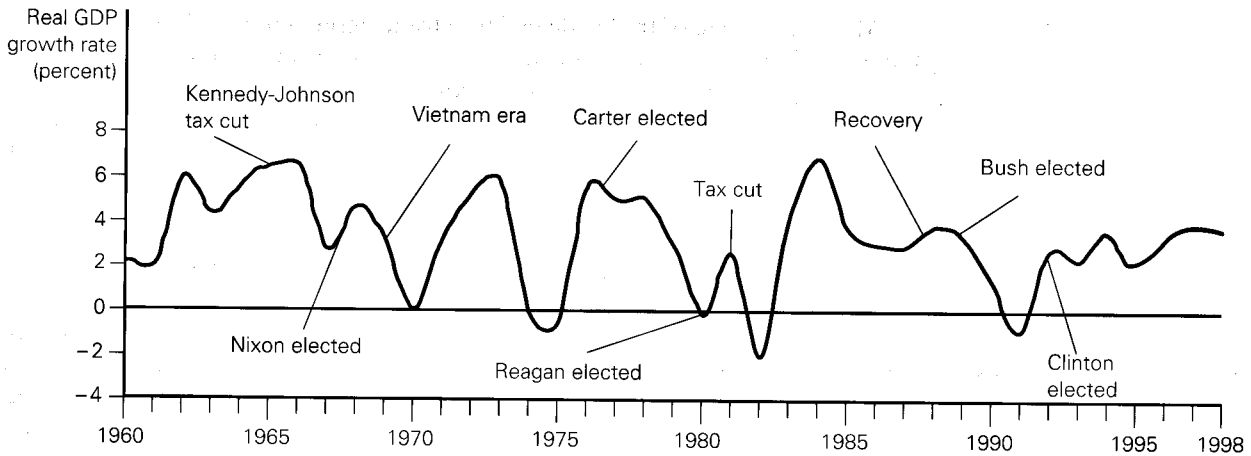


FIGURE 19.5

Cycles of Real Annual Growth Rate in GDP, 1960–1998

Periods of economic expansion and contraction have varied a great deal in this century. Note the roller-coaster path since 1960, punctuated by sharp recessions in 1974–1975, 1980, 1981–1982, and 1990–1991.

Source: Council of Economic Advisers, *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1996), p. 283.

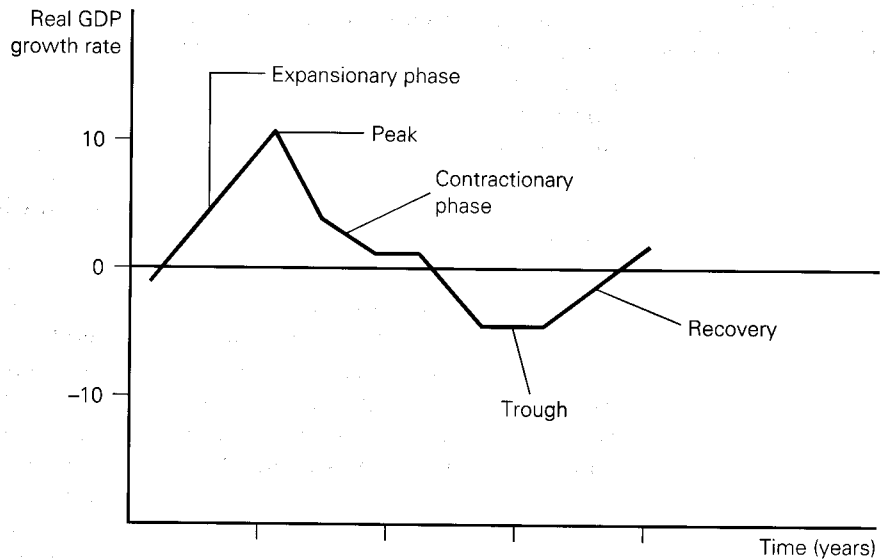


FIGURE 19.6

A Typical Business Cycle

Business cycles vary in length and intensity. A typical cycle includes an expansionary phase of rising business activity and growth, a peak of activity, a contractionary phase of falling activity, and a low point, usually referred to as a trough.

S I X T H E D I T I O N

ECONOMICS

Private Markets and Public Choice

Robert B. Ekelund, Jr.
Auburn University

Robert D. Tollison
University of Mississippi

WITH INTERNET RESOURCES PROVIDED BY

Audrey B. Davidson
University of Louisville

AND

Barry Haworth
University of Louisville

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