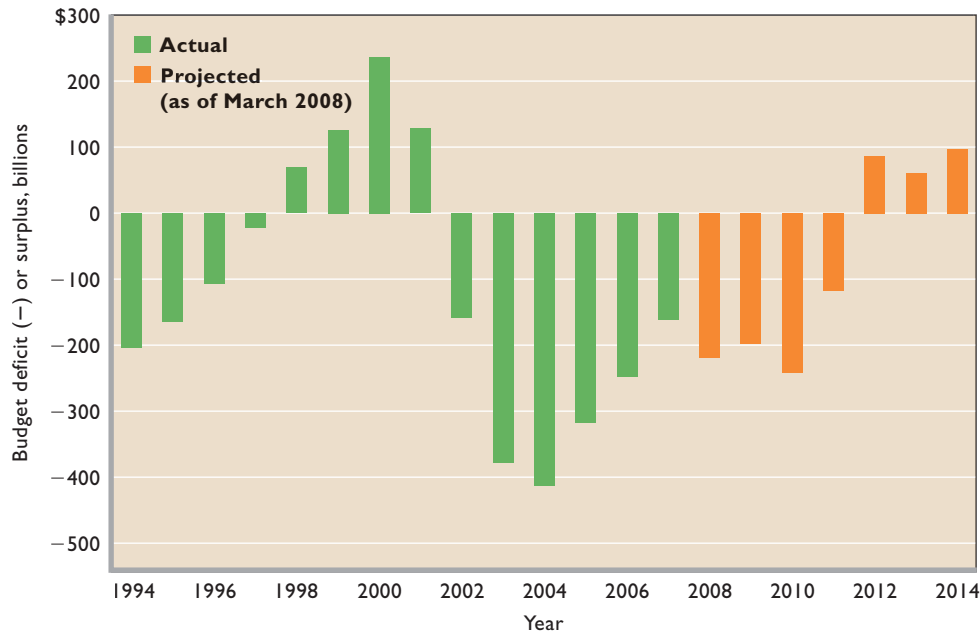


FIGURE 30.5 Federal budget deficits and surpluses, actual and projected, fiscal years 1994–2014 (in billions of nominal dollars). The annual budget deficits of 1992 through 1997 gave way to budget surpluses from 1998 through 2001. Deficits reappeared in 2002 and are projected to continue through 2011.



Source: Congressional Budget Office, www.cbo.gov.

future deficits or surpluses as published by the Congressional Budget Office (CBO). The United States has been experiencing large budget deficits that are expected to continue for several years. But projected deficits and surpluses are subject to large and frequent changes, as government alters its fiscal policy and GDP growth accelerates or slows. So we suggest that you update this figure by going to the Congressional Budget Office Web site, www.cbo.gov, and selecting Budget Projections, which are listed under Budget and Economic Information. On that page, click on the “pdf” hyperlink to open an Adobe Acrobat file containing the CBO’s Baseline Budget Projections. The relevant numbers are in the row Deficit (–) or Surplus.

Social Security Considerations

The surpluses and deficits in Figure 30.5 include all tax revenues, even those obligated for future Social Security payments. Recall from the Last Word in Chapter 4 that Social Security is basically a “pay-as-you-go plan” in which the mandated benefits paid out each year are financed by the payroll tax revenues received each year. But current tax rates now bring in more revenue than current payouts, in

partial preparation for the massive increase in payouts that the system will begin having to make as the baby boom generation enters retirement over the next two decades. The Federal government saves the excess revenues by purchasing U.S. securities and holding them in the Social Security trust fund.

Some economists argue that these present Social Security surpluses (\$288 billion in 2007) should be subtracted from Federal government revenue when calculating present Federal deficits. Because these surpluses represent future government obligations on a dollar-for-dollar basis, they should not be considered revenue offsets to current government spending. Without the Social Security surpluses, the total budget deficit in 2007 would have been \$450 billion rather than the \$162 billion shown.

Problems, Criticisms, and Complications

Economists recognize that governments may encounter a number of significant problems in enacting and applying fiscal policy.

Problems of Timing

Several problems of timing may arise in connection with fiscal policy:

- **Recognition lag** The recognition lag is the time between the beginning of recession or inflation and the certain awareness that it is actually happening. This lag arises because the economy does not move smoothly through the business cycle. Even during good times, the economy has slow months interspersed with months of rapid growth and expansion. This makes recognizing a recession difficult since several slow months will have to happen in succession before people can conclude with any confidence that the good times are over and a recession has begun. The same is true with inflation. Even periods of moderate inflation have months of high inflation—so that several high-inflation months must come in sequence before people can confidently conclude that inflation has moved to a higher level. Attempts to get a jump on the recognition lag by attempting to predict the future course of the economy also have proven to be largely futile (see this chapter's Last Word on the index of leading indicators). As a result, the economy is often 4 to 6 months into a recession or inflation before the situation is clearly discernible in the relevant statistics. Due to this recognition lag, the economic downslide or the inflation may become more serious than it would have if the situation had been identified and acted on sooner.
- **Administrative lag** The wheels of democratic government turn slowly. There will typically be a significant lag between the time the need for fiscal action is recognized and the time action is taken. Following the terrorist attacks of September 11, 2001, the U.S. Congress was stalemated for 5 months before passing a compromise economic stimulus law in March 2002. (In contrast, the Federal Reserve began lowering interest rates the week after the attacks.)
- **Operational lag** A lag also occurs between the time fiscal action is taken and the time that action affects output, employment, or the price level. Although changes in tax rates can be put into effect relatively quickly once new laws are passed, government spending on public works—new dams, interstate highways, and so on—requires long planning periods and even longer periods of construction. Such spending is of questionable use in offsetting short (for example, 6- to 12-month) periods of recession. Consequently, discretionary fiscal policy has increasingly relied on tax changes rather than on changes in spending as its main tool.

Political Considerations

Fiscal policy is conducted in a political arena. That reality not only may slow the enactment of fiscal policy but also may create the potential for political considerations swamping economic considerations in its formulation. It is a human trait to rationalize actions and policies that are in one's self-interest. Politicians are very human—they want to get reelected. A strong economy at election time will certainly help them. So they may favor large tax cuts under the guise of expansionary fiscal policy even though that policy is economically inappropriate. Similarly, they may rationalize increased government spending on popular items such as farm subsidies, health care, highways, education, and homeland security.

At the extreme, elected officials and political parties might collectively “hijack” fiscal policy for political purposes, cause inappropriate changes in aggregate demand, and thereby cause (rather than avert) economic fluctuations. For instance, before an election, they may try to stimulate the economy to improve their reelection hopes. And then after the election, they may try to use contractionary fiscal policy to dampen the excessive aggregate demand that they caused with their preelection stimulus. In short, elected officials may cause so-called **political business cycles**. Such scenarios are difficult to document and prove, but there is little doubt that political considerations weigh heavily in the formulation of fiscal policy. The question is how often those political considerations run counter to “sound economics.”

Future Policy Reversals

Fiscal policy may fail to achieve its intended objectives if households expect future reversals of policy. Consider a tax cut, for example. If taxpayers believe the tax reduction is temporary, they may save a large portion of their tax cut, reasoning that rates will return to their previous level in the future. They save more now so that they will be able draw on this extra savings to maintain their future consumption levels if taxes do indeed rise again in the future. So a tax reduction thought to be temporary may not increase present consumption spending and aggregate demand by as much as our simple model (Figure 30.1) suggests.

The opposite may be true for a tax increase. If taxpayers think it is temporary, they may reduce their saving to pay the tax while maintaining their present consumption. They may reason they can restore their saving when the tax rate again falls. So the tax increase may not reduce current consumption and aggregate demand by as much as policymakers intended.

To the extent that this so-called *consumption smoothing* occurs over time, fiscal policy will lose some of its strength. The lesson is that tax-rate changes that households view as permanent are more likely to alter consumption and aggregate demand than tax changes they view as temporary.

Offsetting State and Local Finance

The fiscal policies of state and local governments are frequently *pro-cyclical*, meaning that they worsen rather than correct recession or inflation. Unlike the Federal government, most state and local governments face constitutional or other legal requirements to balance their budgets. Like households and private businesses, state and local governments increase their expenditures during prosperity and cut them during recession. During the Great Depression of the 1930s, most of the increase in Federal spending was offset by decreases in state and local spending. During and immediately following the recession of 2001, many state and local governments had to offset lower tax revenues resulting from the reduced personal income and spending of their citizens. They offset the decline in revenues by raising tax rates, imposing new taxes, and reducing spending.

Crowding-Out Effect

Another potential flaw of fiscal policy is the so-called **crowding-out effect**: An expansionary fiscal policy (deficit spending) may increase the interest rate and reduce investment spending, thereby weakening or canceling the stimulus of the expansionary policy. The rising interest rate might also potentially crowd out interest-sensitive consumption spending (such as purchasing automobiles on credit). But since investment is the most volatile component of GDP, the crowding-out effect focuses its attention on investment and whether the stimulus provided by deficit spending may be partly or even fully neutralized by an offsetting reduction in investment spending.

To see the potential problem, realize that whenever the government borrows money (as it must if it is deficit spending), it increases the overall demand for money. If

ORIGIN OF THE IDEA

○ 30.2

Crowding out

the monetary authorities are holding the money supply constant, this increase in demand will raise the price paid for borrowing money: the interest rate. Because investment spending varies inversely with the interest rate, some investment will be choked off or “crowded out.”

Economists vary in their opinions about the strength of the crowding-out effect. An important thing to keep in

mind is that crowding out is likely to be less of a problem when the economy is in recession. This is true because investment demand tends to be low during recessions. Why? Because sales are slow during recessions, so that most businesses end up with substantial amounts of excess capacity. As a result, they do not have much incentive to add new machinery or build new factories. After all, why should they add capacity when some of the capacity they already have is lying idle?

With investment demand low during a recession, the crowding-out effect is likely to be very small. Simply put, with investment demand at such a low level due to the recession, there is not as much investment for the government to crowd out. Even if deficit spending does increase the interest rate, the effect on investment may be fully offset by the improved investment prospects that businesses expect from the fiscal stimulus.

By contrast, when the economy is operating at or near full capacity, investment demand is likely to be quite high so that crowding out is likely to be a much more serious problem. When the economy is booming, factories will be running at or near full capacity and firms will have high investment demand for two reasons. First, equipment running at full capacity wears out fast, so firms will be doing a lot of investment just to replace machinery and equipment that wears out and depreciates. Second, the economy is likely to be growing overall so that firms will be investing not just to replace worn-out equipment in order to keep their productive capacity from deteriorating, but also so that they can make *additions* to their productive capacity.

Current Thinking on Fiscal Policy

Where do these complications leave us as to the advisability and effectiveness of discretionary fiscal policy? In view of the complications and uncertain outcomes of fiscal policy, some economists argue that it is better not to engage in it at all. Those holding that view point to the superiority of monetary policy (changes in interest rates engineered by the Federal Reserve) as a stabilizing device or believe that most economic fluctuations tend to be mild and self-correcting.

But most economists believe that fiscal policy remains an important, useful policy lever in the government’s macroeconomic toolkit. The current popular view is that fiscal policy can help push the economy in a particular direction but cannot fine-tune it to a precise macroeconomic outcome. Mainstream economists generally agree that monetary policy is the best month-to-month stabilization tool for the U.S. economy. If monetary policy is doing its job, the government should maintain a relatively neutral fiscal policy, with a standardized budget deficit or

surplus of no more than 2 percent of potential GDP. It should hold major discretionary fiscal policy in reserve to help counter situations where recession threatens to be deep and long-lasting or where a substantial reduction in aggregate demand might help to eliminate a large inflationary gap and aid the Federal Reserve in its efforts to quell the major bout of inflation caused by that large inflationary gap.

Finally, economists agree that proposed fiscal policy should be evaluated for its potential positive and negative impacts on long-run productivity growth. The short-run policy tools used for conducting active fiscal policy often have long-run impacts. Countercyclical fiscal policy should be shaped to strengthen, or at least not impede, the growth of long-run aggregate supply (shown as a rightward shift of the long-run aggregate supply curve in Figure 29.5). For example, a tax cut might be structured to enhance work effort, strengthen investment, and encourage innovation. Alternatively, an increase in government spending might center on preplanned projects for public capital (highways, mass transit, ports, airports), which are complementary to private investment and thus support long-term economic growth. (Key Question 8)

QUICK REVIEW 30.2

- Automatic changes in net taxes (taxes minus transfers) add a degree of built-in stability to the economy.
- The standardized budget compares government spending to the tax revenues that would accrue if there were full employment; changes in standardized budget deficits or surpluses (as percentages of potential GDP) reveal whether fiscal policy is expansionary, neutral, or contractionary.
- Standardized budget deficits are distinct from cyclical deficits, which simply reflect declines in tax revenues resulting from reduced GDP.
- Time lags, political problems, expectations, and state and local finances complicate fiscal policy.
- The crowding-out effect indicates that an expansionary fiscal policy may increase the interest rate and reduce investment spending.

The Public Debt

The national or **public debt** is essentially the total accumulation of the deficits (minus the surpluses) the Federal government has incurred through time. These deficits have emerged mainly because of war financing, recessions, and fiscal policy. In 2007 the total public debt was \$9.01 trillion—\$4.27 trillion held by the public and \$4.73 trillion held by Federal agencies and the Federal

Reserve. (You can find the size of the public debt, to the penny, at the Web site of the Department of Treasury, Bureau of the Public Debt, at www.treasurydirect.gov/NP/BPDLogin?application=np).

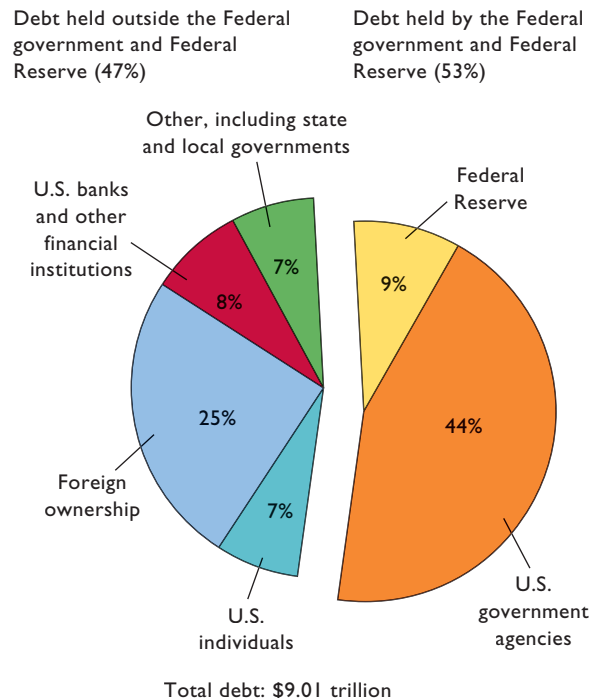
Ownership

The total public debt of \$9.01 trillion represents the total amount of money owed by the Federal government to the holders of **U.S. securities**: financial instruments issued by the Federal government to borrow money to finance expenditures that exceed tax revenues. These U.S. securities (loan instruments) are of four types: Treasury bills (short-term securities), Treasury notes (medium-term securities), Treasury bonds (long-term securities), and U.S. saving bonds (long-term, nonmarketable bonds).

Figure 30.6 shows that the public held 47 percent of the Federal debt in 2007 and that Federal government agencies and the Federal Reserve (the U.S. central bank) held the other 53 percent. In this case the “public” consists of individuals here and abroad, state and local governments, and U.S. financial institutions. Foreigners held

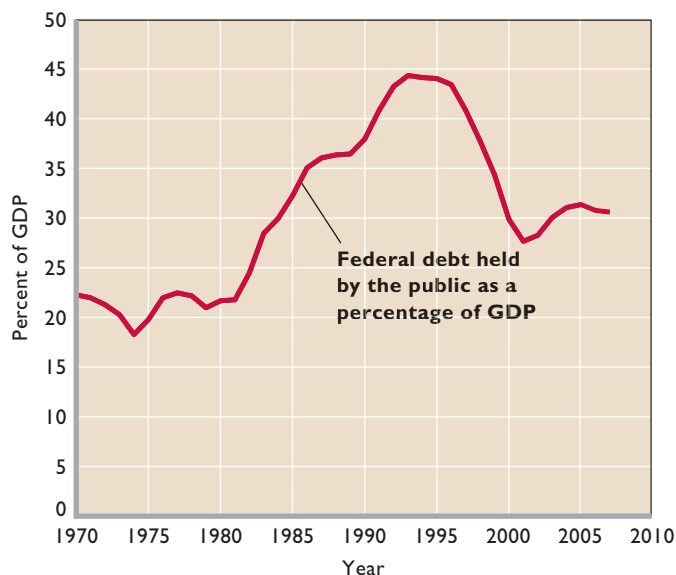
FIGURE 30.6 Ownership of the total public debt, 2007.

The total public debt can be divided into the proportion held by the public (47 percent) and the proportion held by Federal agencies and the Federal Reserve System (53 percent). Of the total debt, 25 percent is foreign-owned.



Source: U.S. Treasury, www.fms.treas.gov/bulletin.

FIGURE 30.7 Federal debt held by the public as a percentage of GDP, 1970–2007. As a percentage of GDP, the Federal debt held by the public (held outside the Federal Reserve and Federal government agencies) increased sharply over the 1980–1995 period and declined significantly between 1995 and 2001. Since 2001, the percentage has gone up again, but remains lower than it was in the 1990s.



Source: Economic Report of the President, www.gpoaccess.gov/eop/index.html.

about 25 percent of the total debt in 2007. So, most of the debt is held internally, not externally. Americans owe three-fourths of the debt to Americans.

Debt and GDP

A simple statement of the absolute size of the debt ignores the fact that the wealth and productive ability of the U.S. economy is also vast. A wealthy, highly productive nation can incur and carry a large public debt more easily than a poor nation can. A more meaningful measure of the public debt relates it to an economy's GDP. Figure 30.7 shows the relative size of the Federal debt held by the public (as opposed to that held by the Federal Reserve and Federal agencies) over time. This percentage—30.6 percent in 2007—has increased since 2001 but remains well below the percentages in the 1990s.

International Comparisons

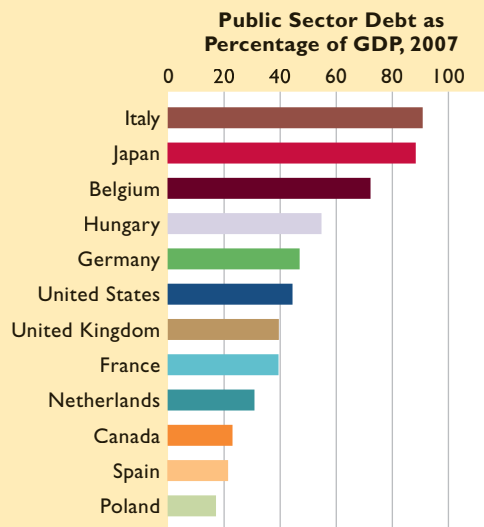
As shown in Global Perspective 30.2, it is not uncommon for countries to have public debts. The numbers shown are government debts held by the public, as a percentage of GDP.



GLOBAL PERSPECTIVE 30.2

Publicly Held Debt: International Comparisons

Although the United States has the world's largest public debt, a number of other nations have larger debts as percentages of their GDPs.



Source: Organization for Economic Cooperation and Development, *OECD Economic Outlook*, www.oecd.org. These debt calculations included Federal, state, and local debt (not just Federal debt as in Figure 30.7).

Interest Charges

Many economists conclude that the primary burden of the debt is the annual interest charge accruing on the bonds sold to finance the debt. In 2007 interest on the total public debt was \$237 billion, which is now the fourth-largest item in the Federal budget (behind income security, national defense, and health).

Interest payments were 1.7 percent of GDP in 2007. That percentage reflects the level of taxation (the average tax rate) required to pay the interest on the public debt. That is, in 2007 the Federal government had to collect taxes equal to 1.7 percent of GDP to service the total public debt. This percentage was down from 3.2 percent in 1990 and 2.3 percent in 2000 thanks to relatively low interest costs of borrowing and a smaller debt-to-GDP ratio.

False Concerns

You may wonder if the large public debt might bankrupt the United States or at least place a tremendous burden on

your children and grandchildren. Fortunately, these are false concerns. People were wondering the same things 50 years ago!

Bankruptcy

The large U.S. public debt does not threaten to bankrupt the Federal government, leaving it unable to meet its financial obligations. There are two main reasons: refinancing and taxation.

Refinancing The public debt is easily refinanced. As portions of the debt come due on maturing Treasury bills, notes, and bonds each month, the government does not cut expenditures or raise taxes to provide the funds required. Rather, it refinances the debt by selling new bonds and using the proceeds to pay holders of the maturing bonds. The new bonds are in strong demand because lenders can obtain a relatively good interest return with no risk of default by the Federal government.

Taxation The Federal government has the constitutional authority to levy and collect taxes. A tax increase is a government option for gaining sufficient revenue to pay interest and principal on the public debt. Financially distressed private households and corporations cannot extract themselves from their financial difficulties by taxing the public. If their incomes or sales revenues fall short of their expenses, they can indeed go bankrupt. But the Federal government does have the option to impose new taxes or increase existing tax rates if necessary to finance its debt.

Burdening Future Generations

In 2007 public debt per capita was \$29,987. Was each child born in 2007 handed a \$29,987 bill from the Federal government? Not really. The public debt does not impose as much of a burden on future generations as commonly thought.

The United States owes a substantial portion of the public debt to itself. U.S. citizens and institutions (banks, businesses, insurance companies, governmental agencies, and trust funds) own about 75 percent of the U.S. government securities. Although that part of the public debt is a liability to Americans (as taxpayers), it is simultaneously an asset to Americans (as holders of Treasury bills, Treasury notes, Treasury bonds, and U.S. savings bonds).

To eliminate the American-owned part of the public debt would require a gigantic transfer payment from Americans to Americans. Taxpayers would pay higher taxes, and holders of the debt would receive an equal amount for

their U.S. securities. Purchasing power in the United States would not change. Only the repayment of the 25 percent of the public debt owned by foreigners would negatively impact U.S. purchasing power.

The public debt increased sharply during the Second World War. But the decision to finance military purchases through the sale of government bonds did not shift the economic burden of the war to future generations. The economic cost of the Second World War consisted of the civilian goods society had to forgo in shifting scarce resources to war goods production (recall production possibilities analysis). Regardless of whether society financed this reallocation through higher taxes or through borrowing, the real economic burden of the war would have been the same. That burden was borne almost entirely by those who lived during the war. They were the ones who did without a multitude of consumer goods to enable the United States to arm itself and its allies. The next generation inherited the debt from the war but also an equal amount of government bonds. It also inherited the enormous benefits from the victory—namely, preserved political and economic systems at home and the “export” of those systems to Germany, Italy, and Japan. Those outcomes enhanced postwar U.S. economic growth and helped raise the standard of living of future generations of Americans.

Substantive Issues

Although the preceding issues relating to the public debt are false concerns, a number of substantive issues are not. Economists, however, attach varying degrees of importance to them.

Income Distribution

The distribution of ownership of government securities is highly uneven. Some people own much more than the \$29,987-per-person portion of government securities; other people own less or none at all. In general, the ownership of the public debt is concentrated among wealthier groups, who own a large percentage of all stocks and bonds. Because the overall Federal tax system is only slightly progressive, payment of interest on the public debt mildly increases income inequality. Income is transferred from people who, on average, have lower incomes to the higher-income bondholders. If greater income equality is one of society’s goals, then this redistribution is undesirable.

Incentives

The current public debt necessitates annual interest payments of \$237 billion. With no increase in the size of the

debt, that interest charge must be paid out of tax revenues. Higher taxes may dampen incentives to bear risk, to innovate, to invest, and to work. So, in this indirect way, a large public debt may impair economic growth.

Foreign-Owned Public Debt

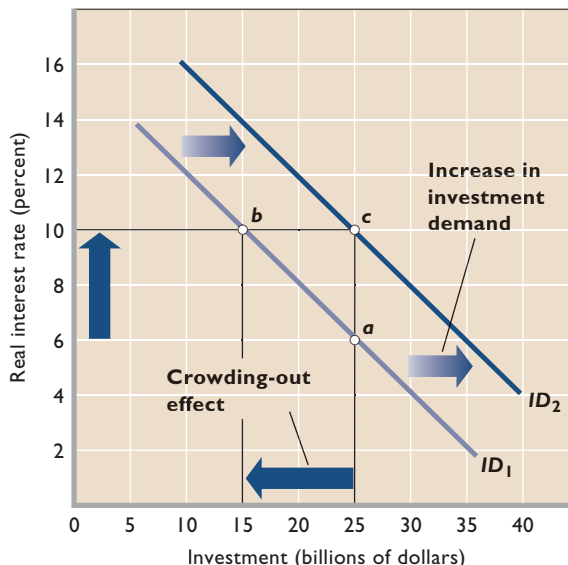
The 25 percent of the U.S. debt held by citizens and institutions of foreign countries is an economic burden to Americans. Because we do not owe that portion of the debt “to ourselves,” the payment of interest and principal on this **external public debt** enables foreigners to buy some of our output. In return for the benefits derived from the borrowed funds, the United States transfers goods and services to foreign lenders. Of course, Americans also own debt issued by foreign governments, so payment of principal and interest by those governments transfers some of their goods and services to Americans. (Key Question 10)

Crowding-Out Effect Revisited

A potentially more serious problem is the financing (and continual refinancing) of the large public debt, which can transfer a real economic burden to future generations by passing on to them a smaller stock of capital goods. This possibility involves the previously discussed crowding-out effect: the idea that public borrowing drives up real interest rates, which reduces private investment spending. As we mentioned earlier, if public borrowing only happened during recessions, crowding out would not likely be much of a problem. Because private investment demand tends to be low during recessions, any increase in interest rates caused by public borrowing will at most cause a small reduction in investment spending. By contrast, a large public debt may cause crowding-out problems because the need to continuously refinance the debt will entail large amounts of borrowing not just during recessions but also during times when the economy is at full employment and investment demand tends to be very high. In such situations, any increase in interest rates caused by the borrowing necessary to refinance the debt may result in a substantial decline in investment spending. If the amount of current investment crowded out is extensive, future generations will inherit an economy with a smaller production capacity and, other things equal, a lower standard of living.

A Graphical Look at Crowding Out We know from Chapter 27 that the real interest rate is inversely related to the amount of investment spending. When graphed, that relationship is shown as a downward-sloping investment demand curve, such as either

FIGURE 30.8 The investment demand curve and the crowding-out effect. If the investment demand curve (ID_1) is fixed, the increase in the interest rate from 6 percent to 10 percent caused by financing a large public debt will move the economy from a to b and crowd out \$10 billion of private investment and decrease the size of the capital stock inherited by future generations. However, if the public goods enabled by the debt improve the investment prospects of businesses, the private investment demand curve will shift rightward, as from ID_1 to ID_2 . That shift may offset the crowding-out effect wholly or in part. In this case, it moves the economy from a to c .



ID_1 or ID_2 in Figure 30.8. Let’s first consider curve ID_1 . (Ignore curve ID_2 for now.) Suppose that government borrowing increases the real interest rate from 6 percent to 10 percent. Investment spending will then fall from \$25 billion to \$15 billion, as shown by the economy’s move from a to b . That is, the financing of the debt will compete with the financing of private investment projects and crowd out \$10 billion of private investment. So the stock of private capital handed down to future generations will be \$10 billion less than it would have been without the need to finance the public debt.

Public Investments and Public-Private Complementarities But even with crowding out, two factors could partly or fully offset the net economic burden shifted to future generations. First, just as private expenditures may involve either consumption or investment, so it is with public goods. Part of the government spending enabled by the public debt is for public investment outlays (for example, highways, mass transit systems, and electric power facilities) and “human capital” (for example, investments in education, job training, and health). Like private expenditures on machinery and equipment,

One of Several Tools Policymakers Use to Develop Forecasts about the Future Direction of Real GDP Is a Monthly Index of 10 Variables That in the Past Have Sometimes Provided Correct Advance Notice of Changes in GDP.

The Conference Board's *index of leading indicators* has often (but not always!) reached a peak or a trough in advance of corresponding turns in the business cycle.* Thus, changes in this composite index of 10 economic variables provide a rough guide to the future direction of the economy. Such advance warning helps policymakers formulate appropriate macroeconomic policy.

Here is how each of the 10 components of the index would change if it were predicting a decline in real GDP. The opposite changes would forecast a rise in real GDP.

1. *Average workweek* Decreases in the length of the average workweek of production workers in manufacturing foretell declines in future manufacturing output and possible declines in real GDP.
2. *Initial claims for unemployment insurance* Higher first-time claims for unemployment insurance are associated with falling employment and subsequently sagging real GDP.
3. *New orders for consumer goods* Decreases in the number of orders received by manufacturers for consumer goods portend reduced future production—a decline in real GDP.
4. *Vendor performance* Somewhat ironically, better on-time delivery by sellers of inputs indicates slackening business demand for final output and potentially falling real GDP.
5. *New orders for capital goods* A drop in orders for capital equipment and other investment goods implies reduced future spending by businesses and thus reduced aggregate demand and lower real GDP.
6. *Building permits for houses* Decreases in the number of building permits issued for new homes imply future declines in investment and therefore the possibility that real GDP will fall.



7. *Stock prices* Declines in stock prices often are reflections of expected declines in corporate sales and profits. Also, lower stock prices diminish consumer wealth, leading to possible cutbacks in consumer spending. Lower stock prices also make it less attractive for firms to issue new shares of stock as a way of raising funds for investment. Thus, declines in stock prices can mean declines in future aggregate demand and real GDP.
8. *Money supply* Decreases in the nation's money supply are associated with falling real GDP.
9. *Interest-rate spread* Increases in short-term nominal interest rates typically reflect monetary policies designed to slow the economy. Such policies have much less effect on long-term interest rates, which usually are higher than short-term rates. So a smaller difference between short-term interest rates and long-term interest rates suggests restrictive monetary policies and potentially a future decline in GDP.

10. *Consumer expectations* Less favorable consumer attitudes about future economic conditions, measured by an index of consumer expectations, foreshadow lower consumption spending and potential future declines in GDP.

None of these factors alone consistently predicts the future course of the economy. It is not unusual in any month, for example, for one or two of the indicators to

be decreasing while the other indicators are increasing. Rather, changes in the composite of the 10 components are what in the past have provided advance notice of a change in the direction of GDP. To the extent that the index has been successful, the rule of thumb is that three successive monthly declines or increases in the index indicate the economy will soon turn in that same direction.

But while that rule of thumb has correctly signaled business fluctuations on many occasions, it leaves a lot to be desired. At times the index has provided false warnings of recessions that never happened. In other instances, recessions have so closely followed the downturn in the index that policymakers have not had sufficient time to make use of the "early" warning. Moreover, changing structural features of the economy have, on occasion, rendered the existing index obsolete and necessitated its revision.

Given these caveats, the index of leading indicators can best be thought of as a helpful but rather unreliable signaling device that authorities must employ with considerable caution when formulating macroeconomic policy.

*The Conference Board is a private, nonprofit research and business membership group, with more than 2700 corporate and other members in 60 nations. See www.conferenceboard.org.

those **public investments** increase the economy's future production capacity. Because of the financing through debt, the stock of public capital passed on to future generations may be higher than otherwise. That greater stock of public capital may offset the diminished stock of private capital resulting from the crowding-out effect, leaving overall production capacity unimpaired.

So-called public-private complementarities are a second factor that could reduce the crowding out effect. Some public and private investments are complementary. Thus, the public investment financed through the debt could spur some private-sector investment by increasing its expected rate of return. For example, a Federal building in a city may encourage private investment in the form of nearby office buildings, shops, and restaurants. Through its complementary effect, the spending on public capital may shift the private investment demand curve to the right, as from ID_1 to ID_2 in Figure 30.8. Even though the government borrowing boosts the interest rate from 6 percent to 10 percent, total private investment need not fall. In the case shown as the move from a to c in Figure 30.8, it remains at \$25 billion. Of course, the increase in investment demand might be smaller than that shown. If it were smaller, the crowding-out effect

would not be fully offset. But the point is that an increase in investment demand may counter the decline in investment that would otherwise result from the higher interest rate. (**Key Question 13**)

QUICK REVIEW 30.3

- The U.S. public debt—\$9.01 trillion in 2007—is essentially the total accumulation of Federal budget deficits minus surpluses over time; about 25 percent of the public debt is held by foreigners.
- As a percentage of GDP, the portion of the debt held by the public is lower today than it was in the mid-1990s and is in the middle range of such debts among major industrial nations.
- The Federal government is in no danger of going bankrupt because it needs only to refinance (not retire) the public debt and it can raise revenues, if needed, through higher taxes.
- The borrowing and interest payments associated with the public debt may (a) increase income inequality; (b) require higher taxes, which may dampen incentives; and (c) impede the growth of the nation's stock of capital through crowding out of private investment.

Summary

1. Fiscal policy consists of deliberate changes in government spending, taxes, or some combination of both to promote full employment, price-level stability, and economic growth. Fiscal policy requires increases in government spending, decreases in taxes, or both—a budget deficit—to increase aggregate demand and push an economy from a recession. Decreases in government spending, increases in taxes, or both—a budget surplus—are appropriate fiscal policy for dealing with demand-pull inflation.
2. Built-in stability arises from net tax revenues, which vary directly with the level of GDP. During recession, the Federal budget automatically moves toward a stabilizing deficit; during expansion, the budget automatically moves toward an anti-inflationary surplus. Built-in stability lessens, but does not fully correct, undesired changes in the real GDP.
3. The standardized budget measures the Federal budget deficit or surplus that would occur if the economy operated at full employment throughout the year. Cyclical deficits or surpluses are those that result from changes in GDP. Changes in the standardized deficit or surplus provide meaningful information as to whether the government's fiscal policy is expansionary, neutral, or contractionary. Changes in the actual budget deficit or surplus do not, since such deficits or surpluses can include cyclical deficits or surpluses.
4. Certain problems complicate the enactment and implementation of fiscal policy. They include (a) timing problems associated with recognition, administrative, and operational lags; (b) the potential for misuse of fiscal policy for political rather than economic purposes; (c) the fact that state and local finances tend to be pro-cyclical; (d) potential ineffectiveness if households expect future policy reversals; and (e) the possibility of fiscal policy crowding out private investment.
5. Most economists believe that fiscal policy can help move the economy in a desired direction but cannot reliably be used to fine-tune the economy to a position of price stability and full employment. Nevertheless, fiscal policy is a valuable backup tool for aiding monetary policy in fighting significant recession or inflation.
6. The large Federal budget deficits of the 1980s and early 1990s prompted Congress in 1993 to increase tax rates and limit government spending. As a result of these policies, along with a very rapid and prolonged economic expansion, the deficits dwindled to \$22 billion in 1997. Large budget surpluses occurred from 1998 through 2001. In 2001 the