Principles of Economics in Context, Second Edition

CHAPTER 31: DEFICITS AND DEBT

You may have seen the national debt clock in New York City that continually shows how much our debt is increasing by the second. The total amount of the debt, which exceeds $20 trillion, seems very large. But what does it mean? Why does our country borrow so much money? To whom do we owe it all? Is it a serious problem? Is it possible for the United States to stop borrowing? This chapter goes into detail in answering these questions and examines the relationship between the national debt and the economy. But first we provide some historical context to the notion of a national debt.

1. DEFICITS AND THE NATIONAL DEBT

Perhaps because the two terms sound so much alike, many people confuse the government's deficit with the government *debt.* But the two "D words" are very different. The deficit totaled nearly $700 billion in fiscal 2017, while total federal debt exceeded $20 *trillion* by the end of fiscal 2017. The reason the second number is much larger than the first is that the debt represents deficits accumulated over many years. In economists' terms, we can say that the government deficit is a *flow* variable while its debt is a *stock* variable. (See Chapter 15 for this distinction.) As we will see, both the deficit and the debt have been projected to increase from fiscal 2018 into the future.[1]

The government's debt rises when the government runs a deficit and falls when it runs a surplus.[2] Figure 31.1 shows some recent data on the government's debt, measured as a percentage of GDP. The two lines on the graph indicate the total government debt and the part of government debt held by the public (as opposed to debt held by government agencies). After hitting a high of more than 100 percent of GDP during World War II, the debt generally declined as a percentage of GDP until 1980. It rose between 1980 and 1996, then declined again relative to GDP until 2000. Since 2000, the debt has risen, with a particularly sharp increase in the years following the 2007–2009 recession.

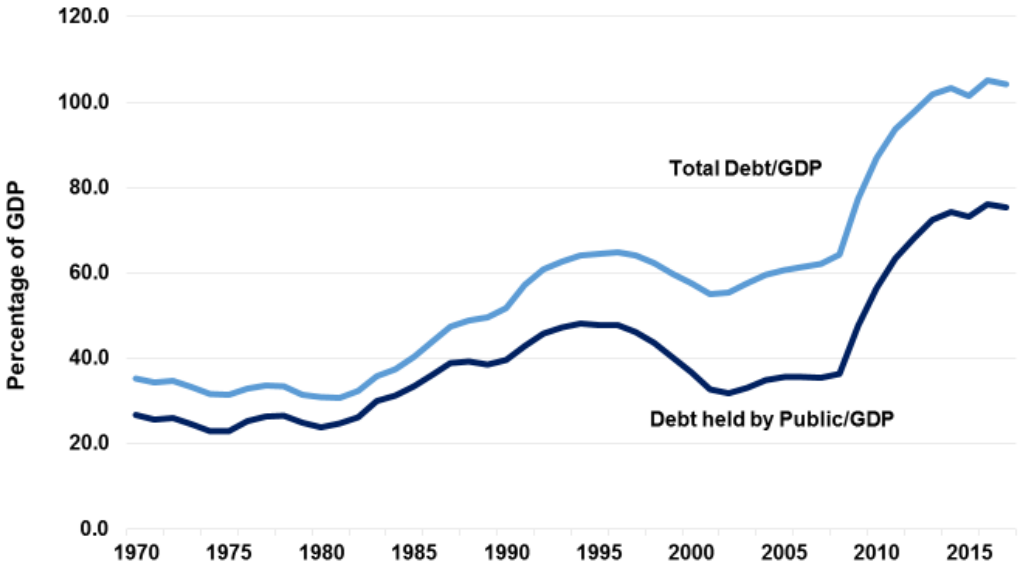
What is the impact on the economy of government debt? One commonly expressed view of the government's debt is that it represents a burden on future generations of citizens. There is some truth to this assertion, but it is also somewhat misleading. It implicitly compares the government's debt to the debt of a private citizen. Certainly, if you personally accumulated a huge debt, it would not be good for your financial future. But government debt is different in some important ways.

First, about half of government debt held by the public is, directly or indirectly, owed to U.S. citizens. When people own Treasury bills (T-bills), Treasury notes, or Treasury bonds, they own government IOUs. From their point of view, the government debt is an asset, a form of wealth. If your grandmother gives you a U.S. Savings Bond, she is giving you a benefit, not a burden. These assets are some of the safest ones that you can own.

Second, government debt does not have to be paid off. Old debt can be "rolled over," that is, replaced by new debt. Provided that the size of the debt does not grow too quickly, the government's credit is good—there will always be people interested in

buying and holding government bonds. Most economists use the rule of thumb that as long as the rate of increase in government's debt is not significantly greater than that of GDP for several years in a row it does not represent a severe problem for the economy. As Figure 31.1 shows, following the 2007–2009 recession, persistently large deficits caused the debt to rise much more rapidly than GDP. Nonetheless, the debt is still at a lower level relative to GDP than it was immediately after World War II, which was followed by nearly two decades of relative economic prosperity.

Figure 31.1 U.S. National Debt as a Percentage of GDP



Source: St. Louis Federal Reserve Bank.

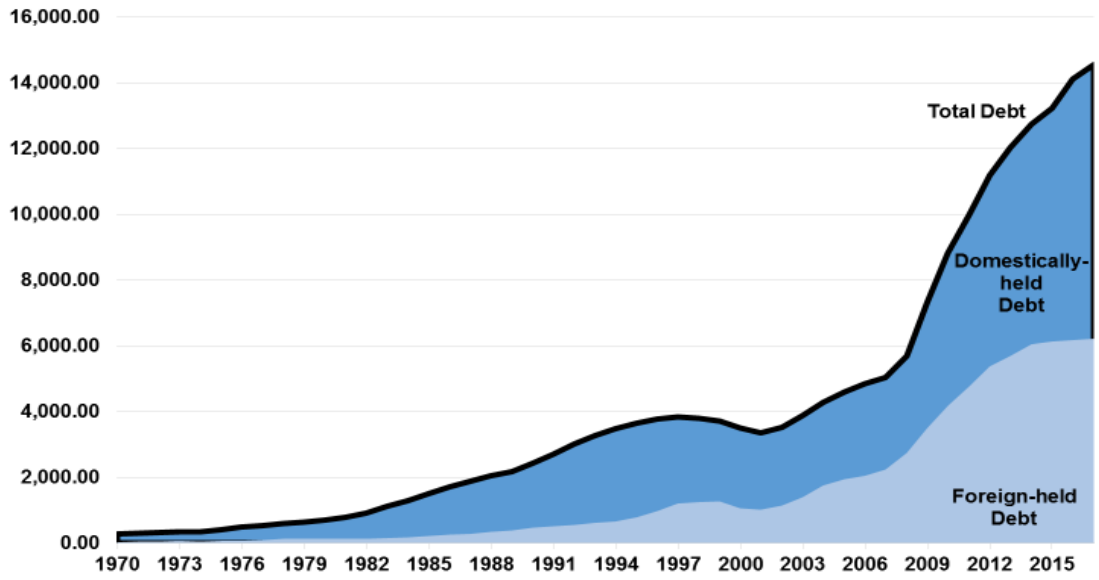
Third, the U.S. government pays interest in U.S. dollars. A country such as Argentina that owes money to other countries and must pay interest in a foreign currency (the U.S. dollar) can get into big trouble and eventually be forced to default on its debt. But it is much easier to manage a debt that is denominated in your own currency. Even if some of the debt is owed to foreigners, the United States does not have to obtain foreign currency to pay it. And so long as foreigners are willing to continue holding U.S. government bonds, it will not be necessary to pay it at all—instead, the debt can be rolled over as new bonds replace old ones.

But this should not encourage us to believe that government debt is never a concern. Rising debt creates several significant problems. First, interest must be paid on the debt. This means that a larger share of future budgets must be devoted to paying interest, leaving less for other needs. It is also true that the largest holders of government bonds tend to be wealthier people, so most of the interest paid by the government goes to better-off individuals. If this payment is not counteracted by changes in the tax system, it encourages increased income inequality—a growing concern, as discussed in the previous chapter. Government debt also creates a problem of generational equity—future taxpayers will have to pay more interest because of government borrowing today. Thus, it is a burden on future generations in that debt finance detracts from other important functions that the government could be

performing. The portion of tax receipts that goes to debt service (paying the interest, if not the principal, of the government's debt) is not available for other uses such as education, health, etc.

A second problem is that in recent years an increasing proportion of the debt has been borrowed from governments, corporations, and individuals in foreign countries (Figure 31.2). The interest payments on this portion of the debt must be made to those outside the country. That means that the United States must earn enough income from exports and other sources to pay not only for imports but also for interest payments to the rest of the world. Alternatively, the country could borrow more, but it is best to avoid this solution, since it would just make the overall foreign debt problem larger in the long run.

Figure 31.2 Domestic and Foreign Holdings of U.S. Debt



Source: St. Louis Federal Reserve Bank.

Large foreign holdings of debt also pose another problem—what if those foreign debt holders decided to sell the U.S. bonds that they own? In that case, the government might have trouble finding enough people who are willing to hold government bonds (that is, lend money to the government). This could cause interest rates to rise sharply, which in turn would push the government budget further into deficit, and could tip the economy into recession.

The question "Is government debt worth it?" can be answered only if we consider what that debt is used to finance. In this respect, an analogy to personal or business debt is appropriate. Most people—including economists—do not reject consumer and corporate debt. Rather, our judgment about debt depends on the benefits received.

For example, if debt is accumulated for gambling, it is a bad idea. If the bet does not pay off, then it is very difficult to pay the interest on the debt (not to mention the principal). But if the government borrows to pay for intelligently planned investment, it can be very beneficial. If the investment leads to economic growth, the government's ability to collect tax revenue is enhanced. This kind of borrowing can pay for itself, as long as the investment is not for wasteful "pork barrel" spending, poorly planned or unnecessary projects, and so on.

Even if the debt finances current spending, it can be justifiable if it is seen as necessary to maintain or protect valuable aspects of life. Most people would not be opposed to borrowing to pay for cleanup after a natural disaster or to contain a deadly pandemic. For example, Congress appropriated $60 billion in relief funds for Hurricane Sandy relief in 2013, and over $100 billion for Hurricanes Harvey, Irma, and Maria, as well as wildfire relief in 2017.

The management of debt involves standard principles of wise stewardship of finances. When we apply them to government deficits and debt, we need to weigh the economic benefits of different spending and tax policies.

Discussion Questions

1. What is the difference between the deficit and the national debt? How are they related?
2. "The national debt is a huge burden on our economy." How would you evaluate this statement?

2. THE U.S. NATIONAL DEBT: A HISTORICAL PERSPECTIVE

2.1 TWO CENTURIES OF DEFICITS AND DEBT

Deficit financing has been part of U.S. history from the very beginning. The Continental Congress of 1776 put the country into debt in order to continue its fight for independence from Great Britain. As is done today, Congress issued bonds in order to finance the country's war effort. There was considerable controversy after the war regarding the role of the new federal government in absorbing the debts incurred by individual states. Alexander Hamilton, secretary of the Treasury under George Washington, was prominent among those who believed that, by introducing greater flexibility into the money supply, a national debt had the potential to strengthen the economy and the country. Despite opposition from other political leaders—John Adams and Thomas Jefferson among them—Hamilton helped set in motion a process through which the federal government regularly relied on debt to finance its operations.

After the United States became independent from Great Britain, its federal government generally repaid its debts fairly quickly. The War of 1812, however, proved very costly, and the national debt approached 15 percent of national income by 1816. In the nineteenth and early twentieth centuries, it was primarily wars that depleted the government's finances. The Civil War was especially costly—the debt approached 40 percent of total national income at its peak—but the Mexican-American and Spanish-American wars also added to the national debt. By 1900 the debt had fallen below 5 percent of total GDP, but the budget deficits during World War I again pushed the national debt beyond 40 percent of GDP.

In terms of its effect on government finances, the Great Depression of the 1930s was truly a watershed. The economic crisis ultimately led to President Franklin D. Roosevelt's New Deal social programs. From that point on, federal spending on social programs—in addition to military spending, which soared during World War II and remained high afterwards—has figured prominently in the total debt figures. Consequently, since 1931 the U.S. federal budget has been in surplus only seven years, compared with the years from independence until 1931, during which surpluses were twice as frequent as deficits. National debt in relation to income rose significantly

during the 1930s, but World War II had an even greater impact. Because consumer goods were rationed, savings accumulated, and people used them to purchase U.S. war bonds (a form of debt), which helped finance U.S. participation in World War II. After the war, the national debt totaled an unprecedented 122 percent of GDP.

2.2 "SUPPLY-SIDE" ECONOMICS

After World War II, the debt generally declined as a percentage of GDP until 1980. The national debt was just over $900 billion in 1981, but rose by nearly $2 trillion during the next eight years. In other words, over those eight years the country incurred twice as much debt as it had in its first 200 years! How did this happen?

Ronald Reagan's 1980 presidential campaign leaned heavily on the principles of "supply-side" economics, which promised that offering more benefits and incentives to the individuals and groups that held the most wealth and productive capital would stimulate rapid investment growth and job creation. According to this principle, tax cuts would pay for themselves through greater revenues from an expanded economy. This is consistent with the oft-heard but controversial concept of "trickle-down" economics, which is the idea that benefits enjoyed by the well-off eventually percolate (i.e., trickle down) to everyone else.

The major policy experiment with supply-side economics was the Economic Recovery Act (ERA, 1981), which cut income and corporate tax rates, substantially reducing government revenues. At the same time, military spending increased in the 1980s. Consequently, the annual budget deficit, which had been 2.7 percent of GDP in 1980, grew to an annual average of about 4 percent during the Reagan presidency (see Chapter 25, Figure 25.5). A portion of the debt increase was due to cyclical factors, specifically an unusually deep recession in 1981–1982. Most of it, however, resulted from the failure of supply-side economics to produce the revenue growth that was needed to make up for the tax cut.

2.3 1989 TO THE PRESENT

In absolute terms, the national debt continued to grow after Reagan left office, despite the fact that by then public awareness of the government's fiscal problems had grown. In an attempt to address persistent deficits, President George H.W. Bush raised tax rates slightly and signed a bill in 1990 requiring that all spending increases be matched by either decreases in spending in other areas or tax increases, in a system known as PAYGO ("pay as you go"). Despite the introduction of that system, another recession (1990–1991) and the first Iraq war kept deficits in the range of 4 percent of GDP annually. It also did not help matters that sizable sums had to be used to bail out many savings and loan banks that collapsed due to losses from risky and ill-conceived real estate investments (a precursor of the real estate bubble of the twenty-first century). In 1992 the national debt was $4 trillion.

Bush's PAYGO policy was continued under the administration of Bill Clinton. Congress again raised income tax rates, and the end of the Cold War allowed the federal government to lower military expenditures (relative to GDP, although not in absolute terms), a side benefit often referred to as a "peace dividend." At the same time, the economy emerged from recession and began a period of sustained growth. The resulting movement from the trough to the peak of the business cycle from 1992 to 2000 generated surpluses in the overall federal budget from 1998 to 2001, a feat that had not been achieved since 1969. This period of budget surpluses, however,

was short-lived.

During the presidency of George W. Bush (2001–2009), a combination of recession, tax cuts, and increased military expenditures pushed the budget back into deficit and caused the debt to increase further. By 2008, the debt totaled almost 70 percent of GDP.

The first Obama administration (2009–2013) was spent dealing with the worst recession since the 1930s. During this period, annual deficits averaged around 8 percent of GDP, and the national debt rose to just over 100 percent of GDP, as the government deployed an $800 billion fiscal policy package to keep the 2007–2009 recession from turning into a full-fledged depression. Tax revenue fell sharply, from $2.5 trillion in 2008 to $2.1 trillion in 2009. As is normal in a recession, expenditures increased due to automatic stabilizers (see Chapter 25, Figure 25.5). The combination of these factors with continued military expenses in Iraq and Afghanistan led to record deficits of more than $1 trillion. After 2012 the annual deficit fell to a historically more normal level around 2.5 to 4 percent of GDP, but as of 2018 the national debt was still over 100 percent of GDP (see Figure 31.1).[3] With Trump administration tax cuts being implemented in 2018, deficits started to rise again, and were projected to exceed $1 trillion in 2019, according to the Congressional Budget Office.[4]

Discussion Questions

1. Has the U.S. federal government ever had a budget surplus? When was the last time? Was there ever a time that the government was not in debt?
2. What causes budget deficits? Are budget deficits necessarily a bad thing?

3. THE DEBT AND ITS LINKS TO FINANCE

3.1 TAXONOMY OF DEBT TYPES

In the popular press, one encounters different estimates of the country's debt, which can vary considerably depending on whether it refers to government debt or all debt including government and private debt. U.S. total debt, including both public and private debt, is over 300 percent of GDP (Figure 31.3). Some confusion has been caused by differing terminology relating to the debt, so it may be helpful to distinguish between different categories.

The term "national debt" usually refers to the **gross federal debt**, which is actually the total debt outstanding for the federal government (Table 31.1), and is the debt to which we have referred until now. It is not, however, the same as the **debt held by the public**. The gross federal debt includes money that the federal government "borrows" from other government accounts. Prominent examples include Social Security and Medicare, which, as noted earlier, are classified as "off budget." Basically, when the government collects more in tax revenue for these programs than it pays out, it realizes an off-budget surplus. It is then in a position to "borrow" the surplus, or at least a portion of it, as an alternative to borrowing money from the public. So it is the debt held by the public, not the gross federal debt, that is a direct consequence of federal budget deficits.

gross federal debt: total amount owed by the federal government to all claimants, including foreigners, the public in the United States, and other government accounts

debt held by the public: the gross federal debt minus the debt owed to other government accounts

Table 31.1 **Debt Taxonomy**

	Debt type	Description
Government	Gross federal debt	Generally synonymous with the national debt; refers to the total amount of money owed by the federal government to all claimants
	Debt held by public	Gross federal debt minus debt held in government accounts
	Internal debt	The share of the gross federal debt owned by domestic individuals or groups
	External debt	The share of the gross federal debt owned by foreign individuals or groups
	State and local debt	The total value of all state and local bonds outstanding
Private	Households and not-for-profits	Includes mortgage debt, credit card debt, and bank loans
	Financial sector	Total of all corporate debt for financial industry
	Nonfinancial business	All corporate debt and bank borrowing for nonfinancial business

As discussed in Chapter 27, the Federal Reserve is an active participant in the market for U.S. bonds, as it buys and sells them to conduct its open market operations in hopes of influencing interest rates. So the Fed also holds a significant share of the federal debt. Its share is also considered a part of the debt held by the public.

One final distinction is between the **internal debt** and the **external debt**. The internal debt refers to the portion of the gross federal debt that is owned by individuals or groups within the country, and the external debt represents the portion held by foreigners or foreign groups.

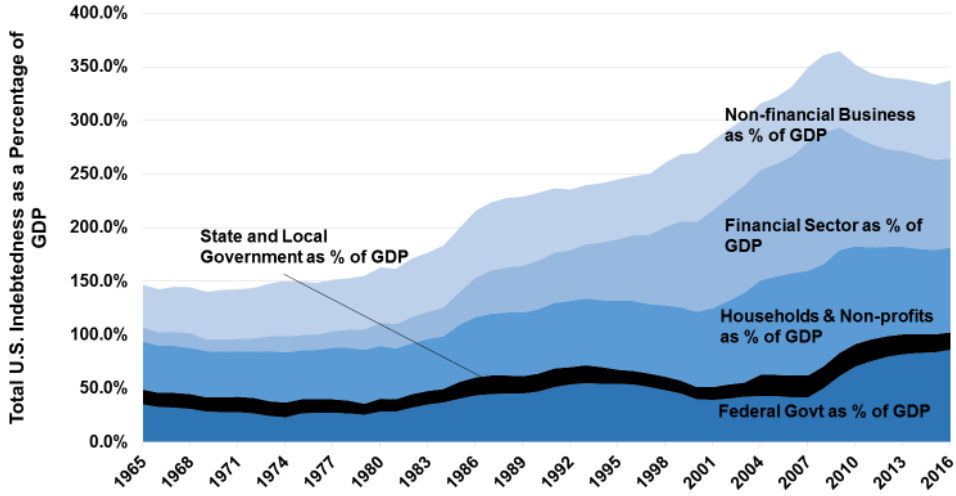
internal debt: the portion of the gross federal debt that is owed to individuals or groups within the country

external debt: the portion of the gross federal debt that is owed to foreign individuals or groups

Like the federal government, state and municipal governments also often rely on borrowing to fund their operations. They issue a variety of bond instruments to acquire funds from the public, which in a sense add to the country's total indebtedness. This is also a point of frequent confusion. In its common usage, the term "national debt"

usually refers only to the federal portion of the debt. This seems reasonable, because it is the debt that is directly related to fiscal policy and how it affects the national economy. Yet if we speak of the total debt of the country, it appears misleading to exclude the state and local debt. And the picture becomes even more complicated, because a complete accounting of debt would also include all household debt (e.g., mortgage and credit card), financial sector debt, and the debt of nonfinancial business, which includes both bank loans outstanding and corporate bonds issued to finance private debt.

Figure 31.3 Total U.S. Indebtedness as a Percentage of GDP



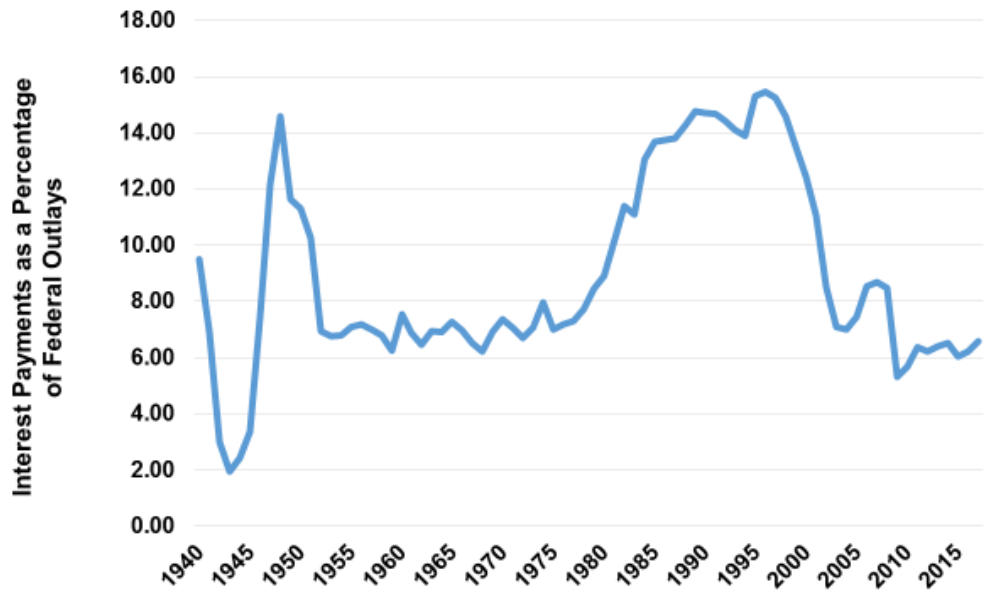
Source: Federal Reserve Bank of St. Louis, FRED Economic Database

If we add all the categories to represent the total indebtedness of the whole country, we find that, as of 2016, it exceeded 300 percent of GDP, and was more than double what it had been in the 1970s (Figure 31.3). Such an inclusive debt concept is not of great significance in ordinary times, since, as discussed in Chapter 26, most of the debt exists as an *asset* in someone else's balance sheet. During the run-up to the Great Recession, however, the rapidly rising debt, especially notable in the financial sector, should have been setting off alarm bells, as it meant that the country as a whole had used up much of the leeway in terms of borrowing capacity that could have been drawn on to get out of a recession. After the Great Recession, total debt fell as a percent of GDP despite rising government debt, because the economic downturn forced households and businesses to reduce their debt levels.

3.2 FEDERAL GOVERNMENT BORROWING: POTENTIAL PROBLEMS

In earlier chapters we saw that when the government borrows money, it issues bonds on which it must pay interest. The interest payments form part of the annual federal budget. Figure 31.4 shows how these payments as a percentage of federal spending have varied over time. Note that interest payments accounted for a much greater portion of the budget during the 1980s and 1990s than they do now. Considering that federal debt as a percentage of GDP has risen quite rapidly over the past decade, how can this be? The answer is that the unusually low interest rates that have prevailed over the same period make this possible.

Figure 31.4 Interest Payments as Percentage of Total Federal Outlays

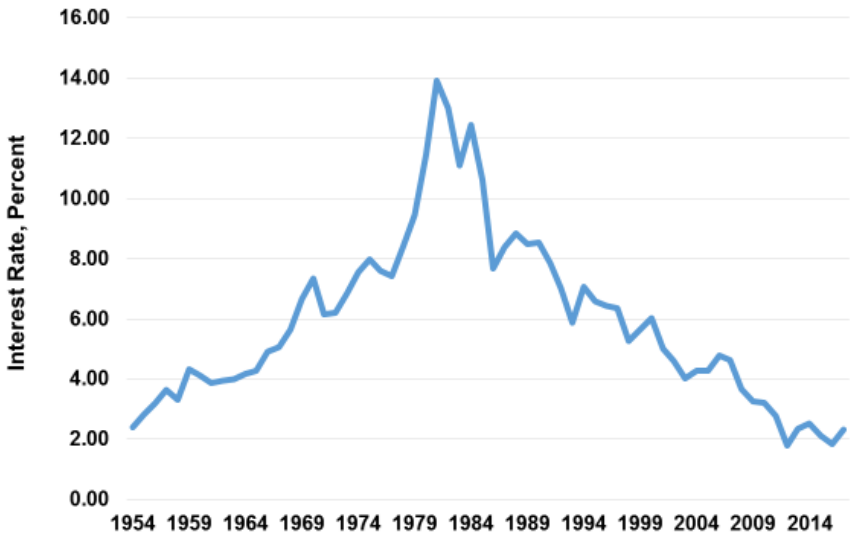


Source: St. Louis Federal Reserve Bank.

We have seen in earlier chapters that a weak economy tends to induce lower interest rates, both naturally and as a consequence of policy measures. If interest rates are lower throughout the economy, the Treasury can issue new debt (e.g., Treasury bonds) at a low interest rate. When it does so, it is effectively reducing the portion of the federal budget that must be set aside for debt service. The phenomenon is not unlike the low monthly payments a homeowner makes after obtaining a mortgage with a very low interest rate. The major difference to keep in mind is that, unlike a household, the federal government has the ability to print money if need be to pay off its debt.

As of August 2018, the interest rate on a ten-year Treasury bond was 2.87 percent. This is extremely low from a historical perspective (see Figure 31.5). The ten-year rate was below 3 percent from 2011 to 2017, even reaching 1.5 percent in 2016. One might think that at such low interest rates, borrowing was especially cheap, making it a good time for the government to run a budget deficit and accumulate debt. It is important to consider, however, that interest rates are likely to rise in future, increasing the burden of servicing the debt. The argument for adding to federal debt seems stronger if the government spends on programs that produce a high multiplier effect (Chapter 25). With low interest rates, the gain from the multiplier effect (in terms of the increase in aggregate demand) is potentially larger than the loss (in terms of adding to the debt burden), which would make the net gain positive.

Figure 31.5 The Interest Rate on 10-Year Treasury Bonds



Source: St. Louis Federal Reserve Bank.

It may be counterproductive, however, to allow the debt to grow if it is financing "low-multiplier" activities. An example is tax cuts for the wealthy, which, as we saw in Chapter 25, do not produce as much "bang for the buck" as tax cuts for the poor or new spending on constructive activities. A useful way of understanding the problem is to imagine the federal government as a private business. Would a business borrow money at an interest rate higher than its expected rate of return? Of course not. The government's situation is a bit more complicated because it needs to assess the projected "social return" on its expenditures (e.g., a more educated citizenry, better infrastructure). The problem is that it is seldom easy to express the social return in dollars.

Another concern with mounting debt is that, if debt relative to GDP becomes sufficiently large, lenders might start to doubt the borrowers' ability to repay. If the doubt were severe and widespread, it could affect the bond market and, as a result, the national economy. Risk-averse investors would sell their bonds, driving bond prices down. When bond prices go down, bond yields (rates of return) go up (as noted in the appendix to Chapter 27), because the amount that the government has to pay in interest on the bond becomes higher relative to the value of the bond. Any new bonds that are then issued will have to match this higher rate of return, meaning that the government will have to pay more in debt service costs in future.

The greater the unease over the borrower's ability to pay, the higher the interest rate that the borrower must offer in order to attract lenders. In the summer of 2011 Standard & Poor's, one of the major ratings agencies, downgraded U.S. government debt from AAA to AA+ as a result of a political impasse between the Obama administration and the Republican Congress that created doubt about the reliability of government debt payments. Fortunately for the United States, even with this downgrade, its debt remained very much in demand.

A third potential problem with too much debt concerns exactly how it gets repaid. An indebted country must repay the principal on its debt and service it with interest payments. To do so, it must either engage in new borrowing, raise tax revenues, or

monetize the debt. We have seen that increasing tax rates has the potential to reduce consumption and investment, hurting GDP growth and employment. But it is also possible to finance a federal budget deficit with bonds that are purchased by the Fed.[5] As we saw in Chapter 27, this amounts to an expansionary monetary policy.

monetizing the debt: the purchase of new debt from the Treasury by the Federal Reserve

A policy of monetizing the debt risks causing inflation, especially if the increase in the money supply is large and continues over a long period. If such inflation does occur, the bond markets would then demand higher interest rates on new debt to compensate for the anticipated loss from inflation. How serious is this danger? Some economists believe that a mild to moderate increase in inflation is not necessarily a problem, especially if it occurs in a depressed economy facing a looming threat of deflation. As we saw in Chapter 26, deflation would in most circumstances be more dangerous than inflation, while mild inflation has historically been associated with economic recoveries and gains in domestic employment. Severe inflation, however, would be very damaging to the economy, and other economists point to this as a possible long-term result of increasing government debt. Even moderate inflation has significant economic implications, since the Federal Reserve is likely to respond to observed inflation by raising interest rates, as described in Chapter 28, thereby restraining economic activity and possibly pushing the economy into recession.

Discussion Questions

1. How many different "types" of debt can you think of? Which one do people usually mean when they speak about the "national debt"?
2. What are some potential problems with excessive federal debt? How can the debt be managed or repaid?

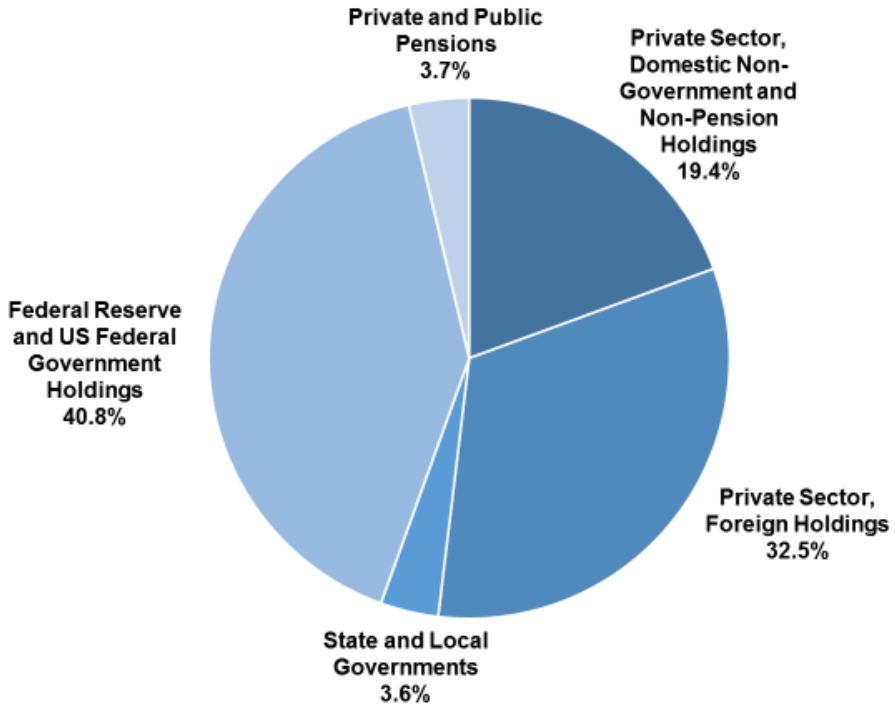
4. POLITICAL ECONOMY OF THE DEBT

4.1 WHO OWNS THE DEBT?

We have already seen that when the federal government goes into debt, it sells government bonds. But who buys these bonds? It might surprise you to see how ownership of the gross federal debt is divided up. Federal Reserve and U.S. government holdings account for over 40 percent of the debt (Figure 31.6). Social Security is the largest of the government accounts that hold federal debt. Among many other funds, the principal ones are the funds for federal employee retirement, federal hospital insurance, and federal disability insurance. State and local governments, perhaps surprisingly, account for another 3.6 percent of federal debt. States and municipalities with budget surpluses will often buy federal debt, because it is considered mostly risk free.

The domestic private sector owns just under 20 percent of the federal debt in the form of bonds, which are found in a variety of locations: banks, pension plans, insurance companies, mutual funds, and others, including households. Finally, foreigners own about one-third (32.5 percent) of all federal debt. This is the U.S. external debt.

Figure 31.6 Ownership of Gross Federal Debt



Source: Treasury Department, 2016, Tables OFS-1; *Distribution of Federal Securities by Class of Investors and Type of Issues*, Table OFS-2; *Estimated Ownership of US Treasury Securities and Table*.

In 2018, China and Japan together owned more than 35 percent of the external U.S. debt (Figure 31.7), a reflection of the large trade surpluses that the two countries have had with the United States for several decades. As we saw in Chapter 29, when China and Japan export more to the United States than they import from us, they acquire a surplus of U.S. dollars, which they then use to buy U.S. federal debt. Why do they choose to hold U.S. government debt? For the same reason that domestic investors, state and local governments, and the Social Security trust fund trustees do: U.S. Federal debt is widely perceived as returning risk-free income.

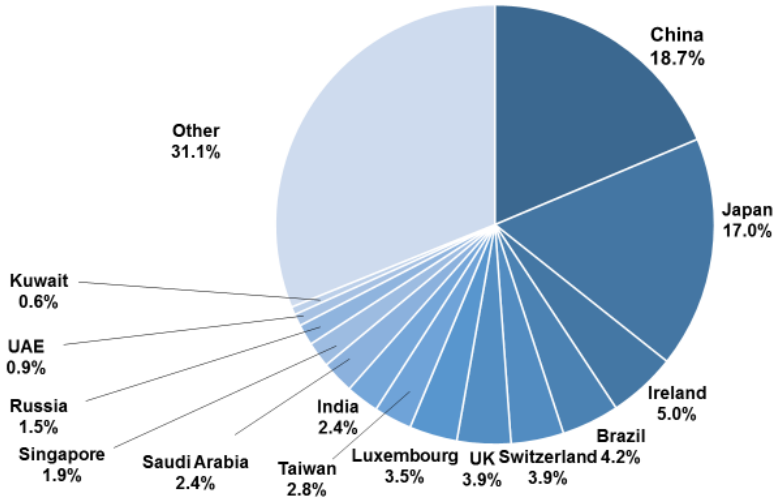
Twelve countries—Ireland, Brazil, Switzerland, the United Kingdom, Luxembourg, Taiwan, India, Saudi Arabia, Singapore, Russia, the United Arab Emirates, and Kuwait—accounted for just over 33 percent of U.S. external debt. Other countries collectively owned 31 percent of U.S. external debt as of 2018.

Although in absolute terms the U.S. debt is by far the highest in the world, it is a very different story if we look at total debt in relation to GDP. Japan's ratio of debt to GDP has risen since its economic slowdown started in the 1990s and is currently 234 percent of GDP (Figure 31.8). Nevertheless, Japanese bonds are still bought and traded on the secondary market, which may be a testament to the widespread belief in the stability of the Japanese economy. This is in contrast to Greece, which has had to raise its bond rates substantially to attract continued investors, even though its debt to GDP ratio (187%) is significantly below Japan's. Italy's ratio, at 155 percent, also surpasses that of the United States.

In terms of the rate of increase in the debt, among the countries listed only the UK surpasses the rate of debt increase of the United States, whose ratio increased from

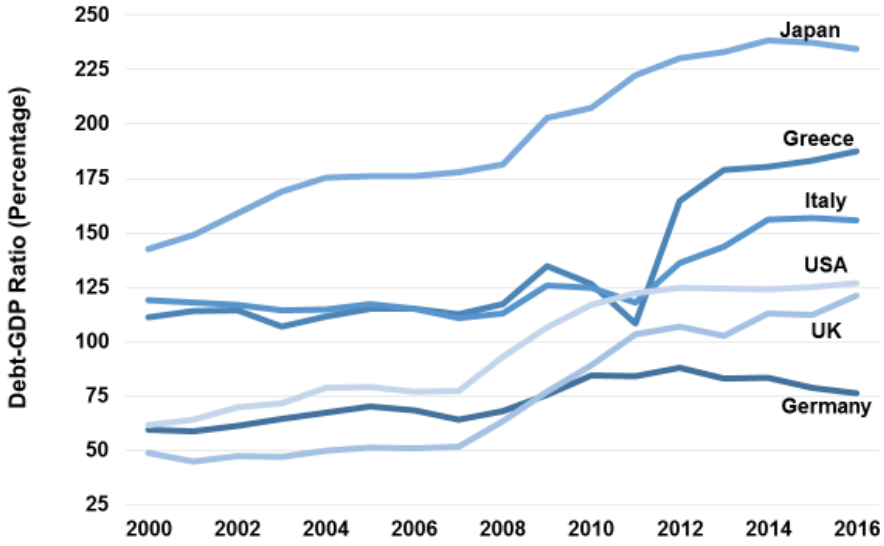
64 percent in 2006 to over 100 percent in 2016, impelled by tax cuts and the financial crisis. Still, the U.S. situation continues to resemble Japan's, in that growing indebtedness has not noticeably altered investor confidence, allowing the U.S. bond yields to remain relatively low.

Figure 31.7 Foreign Holders of Gross Federal Debt



Source: Treasury Department, 2018, *Major Foreign Holders of Treasury Securities.*

Figure 31.8 Debt-GDP Ratios, an International Comparison



Source: OECD, *General Government Debt,* www.oecd.org
Note: U.S. debt figures include Federal, state, and local debt.

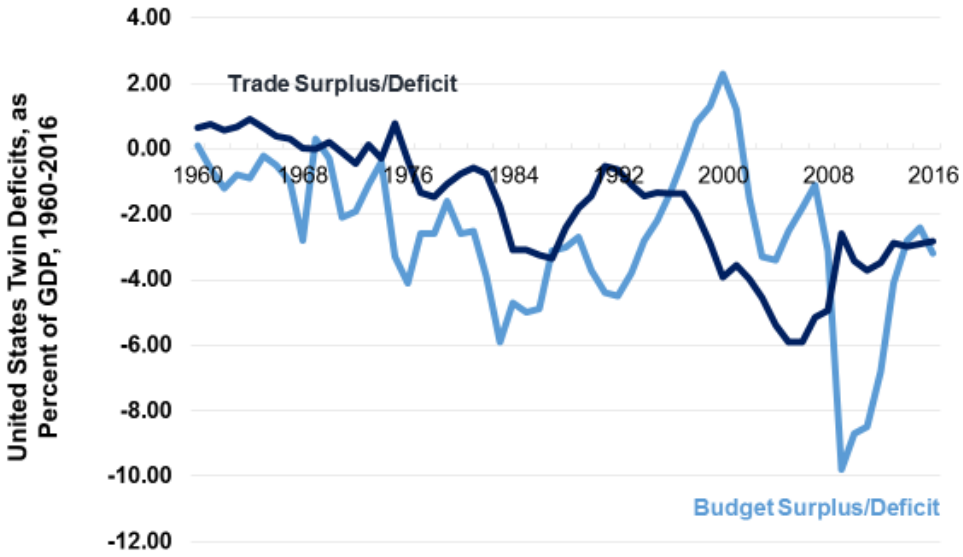
4.2 THE TWIN DEFICITS

As we have seen, a deficit can refer to a government's finances or to a country's trade

balance. The fact that the two types of deficits are closely linked adds to the not infrequent confusion about these terms. Indeed, our debt to other countries as measured in terms of their ownership of our bonds is related both to our budget and trade deficits. Yet as we can see from Figure 31.9, the trend lines do not always move together.

Up until the early to mid-1970s, the trade balance in the United States was around 1 percent of GDP, a relatively insubstantial amount, and frequently changed from surplus to deficit and vice-versa. The federal budget, on the other hand, was consistently in deficit (with a brief exception in 1969), though mostly at less than 2 percent of GDP. Starting in the mid-1970s, however, both the federal budget and the trade balance turned sharply more negative. The United States has failed to run a trade surplus (i.e., exports greater than imports) since then, and its trade deficit has not been below 2 percent of GDP since 1998, almost reaching 6 percent in 2005 and 2006. The federal budget balance has been even more volatile over this 40- year period, swinging from a surplus of more than 2 percent of GDP in the year 2000 (one of only four years since 1969 that the budget was in surplus) to a deficit of almost 10 percent in 2009.

Figure 31.9 United States Twin Deficits as Percent of GDP



Sources: CBO and U.S. Census Bureau

As discussed in Chapter 29, if a country has positive net exports, it means that it will have a surplus of funds (foreign exchange) to lend to other countries. If, in contrast, a country has negative net exports, it typically must borrow from foreigners, essentially to pay for the difference. If the government budget is in deficit, as also discussed in Chapter 29, this tends to create or increase a trade deficit, unless it is financed by a surplus of domestic savings—which has generally not been the case for the United States. Thus, while the two deficits do not move together in lockstep, they will usually broadly move in the same direction, as shown in Figure 31.9.

4.3 THE BALANCED BUDGET DEBATE

If balancing the budget were legally required, the United States could not have accumulated a national debt. Hoping to avoid uncontrolled debt dependence, many in the past have advocated legislation, or even an amendment to the Constitution, requiring that the budget be balanced. While this idea sounds attractive to many people, the economic consequences would be severe.

Most states have a balanced budget requirement that forces them to cut services and government employees during a recession. The federal government often provides aid to allow states to minimize cost cutting, in an attempt to prevent the economy from weakening further. States have no other recourse because, unlike the federal government, they are unable to create additional funds. In large part, this explains why, as discussed in Chapter 25, states (as well as municipalities) often practice "procyclical" instead of countercyclical policy, which tends to worsen rather than counteract recessions.

A balanced budget amendment would effectively make the federal government little different from the states. Proponents argue that such a law would prevent the federal government from imprudently running deficits, potentially causing inflation, in good economic times. But there is a very serious downside, in that such an amendment would make the federal government powerless to use countercyclical policy to fight recessions.

In 1985, Congress passed the Balanced Budget and Emergency Deficit Control Act, more popularly known as the Gramm-Rudman-Hollings Act (named after the senators who sponsored it). It required that a limit be set on the annual deficit and that the limit be reduced until a balanced budget was achieved in 1991. While less stringent than a constitutional requirement, the **deficit ceiling** was nevertheless strict. Not meeting it would require spending to be reduced automatically to the point where the deficit was no higher than the prescribed limit for that year. This proved too much for Congress, and even for the Supreme Court, which found the automatic reduction provision unconstitutional.

deficit ceiling: a congressionally mandated limit on the size of the federal budget deficit

In 2011 and again in 2013 the Obama administration faced a potential crisis over the near breaching of what is known as the U.S. **debt ceiling**. (This is different from a deficit ceiling. According to rules set by Congress, a vote of Congress is required to increase the debt beyond a set amount, called the debt ceiling.) As the debt approached the mandated ceiling, the United States faced the prospect of not being able to borrow fresh funds to pay bonds that were coming due for payment. The risk of such a default would be a decline in the perceived creditworthiness of the United States and, as noted earlier, in 2011 Standard & Poor's lowered the grade of U.S. Treasury bonds from AAA to AA+, the first time in history that this had happened.

debt ceiling: a congressionally mandated limit on the size of the gross federal debt

Following heated and partisan negotiations, Congress and the President struck a deal in 2011, allowing the debt ceiling to be raised (by about a trillion dollars). Since then, debt ceiling deadlines have become an issue every few years, but have generally been resolved without crisis, given the memory of 2011 and broad recognition of the

dangers of pushing the country close to the cliff of debt default.

The periodic focus on the debt ceiling is in many ways misleading. If Congress and the president want to avoid increasing the debt, they would have to agree on a balanced budget, in which case the debt ceiling would not become an issue. But that is a lot easier said than done. A balanced budget would either require drastic cutbacks in popular programs such as Social Security, or significant tax increases. In the long run, of course, it is important to keep debt levels under control, but it is a mistake to presume that the federal government should maintain zero debt. The ability to use deficits at appropriate times to generate a fiscal stimulus is what sets the federal government apart from the states and cities and possibly protects a weak economy from sinking deeper.

An alternative approach to balanced budgets is the principle of **functional finance,** expounded by economist Abba Lerner, which requires that national governments do their utmost to ensure that aggregate demand remain at a reasonable level, ideally achieving full employment. The assumption behind this principle is that the healthy economic growth that resulted would ensure that the government could sustainably finance its debt with greater tax revenue. The view is in direct conflict with that of deficit "hawks," who would maintain absolute limits on deficit and debt levels.

functional finance: the idea that a sovereign government should finance current needs and provide for adequate aggregate demand to maintain employment levels

Who are the hawks? Even this is not a simple question; while Republicans are traditionally regarded as the party of fiscal "prudence," in recent years both Republicans and Democrats have found themselves on either side of the controversy. But there are major differences even among those not so concerned about deficits.

Keynesians like economist Paul Krugman believe that the government should be spending more in such areas as infrastructure investment; Republican members of Congress believe that the government should be taxing less. From the standpoint of fiscal balance, the two approaches are equivalent. But from an equity standpoint they are very different. Federal government spending tends to benefit the broad population, while major tax cuts, including the Reagan tax cuts of the 1980s and the Bush tax cuts of the 2000s, have disproportionately benefited the well-off. (We analyze the 2017 tax cuts in section 5.2 below). As noted in Chapter 30, tax cuts that primarily benefit upper-income groups have contributed to the recent intensification of inequality in the United States.

4.4 IMPOSED AUSTERITY: THE CASE OF THE EUROPEAN UNION

In the years following the fiscal crisis, the member countries of the European Union (EU) confronted issues similar to those in the United States, but their response was quite different. Recessions in countries like Greece, Spain, and Portugal caused government revenues to fall and expenditures to rise, increasing deficit and debt levels. In Europe, much of the crisis focused on what is called **sovereign debt**—that is, government debt, especially government debt in a currency that the government does not control.

sovereign debt: government debt, especially debt denominated in a currency that the government does not control

Nineteen countries within the European Union have adopted the euro as their currency. In order to participate in the euro currency, EU member countries must meet certain **convergence criteria**. One criterion concerns government finances and requires both that a country's annual deficit not exceed 3 percent of GDP and that its national debt not exceed 60 percent of GDP.[6] After the country is accepted into the eurozone (countries that have adopted the euro as the national currency), the restriction is relaxed somewhat under circumstances of extreme economic difficulty (which explains how, for example, Greece, Italy, and others can have a debt-GDP ratio much higher than 60 percent), but countries must then demonstrate that they are making progress toward once again achieving the target amounts.

convergence criteria: the requirements that EU member countries must satisfy as a condition of participating in the eurozone

Table 31.2 shows deficit and debt figures for Portugal, Italy, Ireland, Greece, and Spain. Although all are still far from satisfying the convergence criteria (though a few do meet it for deficits), only for Greece have leading experts even discussed possible expulsion from the eurozone. But this does not mean that governments have not taken action to reduce their negative budget numbers.

Authorities in the European Union insisted on a policy of **austerity** for deeply indebted countries. Austerity policy requires severely indebted countries to reduce expenditures and/or raise taxes to balance their budgets. The main drawback to such an approach, as noted, is that it worsens already existing recessionary conditions. Consequently, the resulting austerity measures pushed unemployment rates in some of the worst-hit countries to Great Depression levels. Instead of pursuing functional finance, the affected countries made fiscal balance paramount.

austerity: a policy of deficit cutting that reduces public expenditures or raises taxes to balance the budget

Greece, Spain, and, to a lesser degree, Portugal have experienced considerable social unrest as a result of austerity policies. There was widespread resentment of governments that were willing to bail out investors in the financial industry but then ask the public to accept higher taxes and spending cuts to pay for the bailouts. The populations of these countries include millions of retirees who see grave threats to the government pensions on which they rely for income support in their old age. So despite pursuing fiscal policies very different from those used in the United States, the distributional effect was similar—in other words, greater inequality. It is only in more recent years that the European Union's austerity policy has been relaxed, with fiscal and monetary authorities moving modestly in the direction of promoting more expansionary policy (see Box 31.1).

Since countries that are members of the eurozone do not have their own currencies, they, unlike the United States, cannot conduct expansionary monetary policy, and austerity rules require that they implement contractionary fiscal policy. Their inability to counterbalance contractionary fiscal policy with expansionary monetary policy severely reduces their policy tools to promote economic recovery. The ability of indebted eurozone economies to borrow is also constrained, since too much borrowing could drive the interest rates on their debt to unsustainable levels.

Table 31.2 **EU Deficit and Debt Levels in 2016 (percentage of GDP)**

	Deficit	Debt
Portugal	–4.4	146.5
Italy	–2.4	157.3*
Ireland	–0.6	89.4*
Greece	+0.7	185.2
Spain	–4.5	117.2

Source: OECD, www.oecd.org.
*2015

The United States does not confront the same problems, for two reasons. The first is that, at least up to the present, its bond yields are not nearly as sensitive to its escalating debt as are yields in other countries. This issue is related to the U.S. position in the global economy, which, as noted in Chapter 29, has much to do with the historic prestige and strength of the U.S. dollar. The U.S. dominance in this regard may change in the future, but as of now the United States enjoys the advantages of having a "safe haven" currency.

The second reason is that the Fed is far more flexible than its EU counterpart, the European Central Bank (ECB). The ECB's singular agenda is controlling inflation, and it does not consider the fiscal conditions in individual countries. The Fed, in contrast, has a dual mandate to address both inflation and unemployment, providing more flexibility to address short-term economic problems.[7] As we have seen since the financial crisis, the United States has the ability to employ countercyclical fiscal policy and use monetary policy such as lower interest rates and quantitative easing to try to spur economic activity. The comparison between the experiences of the United States and Europe following the fiscal crisis suggest that there are advantages to having greater leeway in fiscal policy, even at the cost of temporarily increased deficits.

BOX 31.1 THE EU MOVES FROM AUSTERITY TO "FISCAL EXPANSION"

The European Commission (EC) approved a 0.5 per cent "fiscal expansion" across the euro area in 2017, in the first signal of a shift in the EU's policy of austerity. In a communique announcing its autumn 2017 economic package, the EC announced, "at this point in time, the commission considers that there is a case for a significantly more positive fiscal stance for the euro area," though it noted that the recovery is still not accelerating. The communique stated that, for member states, the appropriate fiscal expansion could be 0.3 per cent at the lower end of the scale, or as high as 0.8 per cent in some cases.

Announcing the new development, which was agreed following a meeting of all 28 EU commissioners in Brussels, commission president Jean-Claude Juncker said the recommendation of a positive fiscal stance would "support the recovery and the monetary policy of the European Central Bank, which should not bear the burden alone."

"Every member state should play its part: those that can afford it need to invest more, while those which have less fiscal space should pursue reforms and growth-friendly fiscal consolidation," he said.

Commissioner for Economic Affairs Pierre Moscovici said this was the first time the EU had encouraged fiscal expansion, and that it was a reflection of the times, when many citizens felt let down by globalization and are questioning the EU's

policy of austerity. The encouragement of a more positive fiscal stance would help overcome the risk of "low growth, low inflation," he said. Moscovici, however, defended the EU's budget rules, noting that the stability and growth pact had helped to bring the overall deficit down from 6 per cent in 2010 to 1.25 per cent in 2016."We can't pretend that the stability and growth pact is not working—it is effective," he said.

Despite Spain and Portugal missing budget targets this year, the commission said no regional funds would be withheld from the countries, though they remain "at risk of non-compliance" with EU rules.

Source: Lynch, 2016.

Discussion Questions

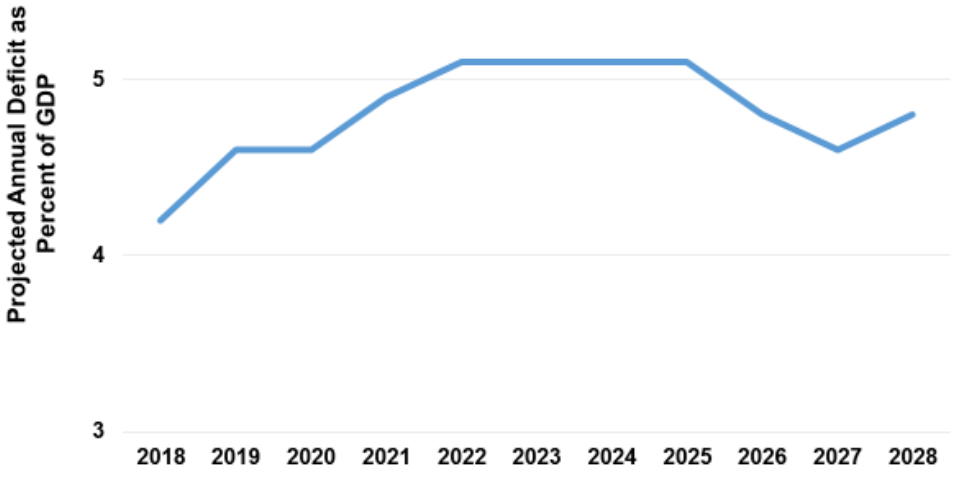
1. Should there be a balanced budget amendment to the Constitution? What problems might such an amendment create?
2. What is the difference between austerity and stimulus? Which track has the European Union followed? How is it different from what the United States has done? Which do you think is a better approach?

5. DEFICIT PROJECTIONS AND POLICY RESPONSES

5.1 DEFICIT PROJECTIONS

The U.S. annual federal deficit declined from a peak of 10 percent of GDP in 2009 to 3.2 percent of GDP in fiscal 2016 (Figure 31.9). The Congressional Budget Office (CBO), which provides nonpartisan economic analysis for Congress, projects that the deficit will increase again to about 5 percent of GDP by 2022, and then remain close to 5 percent for the next six years (Figure 31.10).[8] This is significantly greater than the annual average over the past 50 years, 3.1 percent, implying a more rapid increase in overall federal debt.

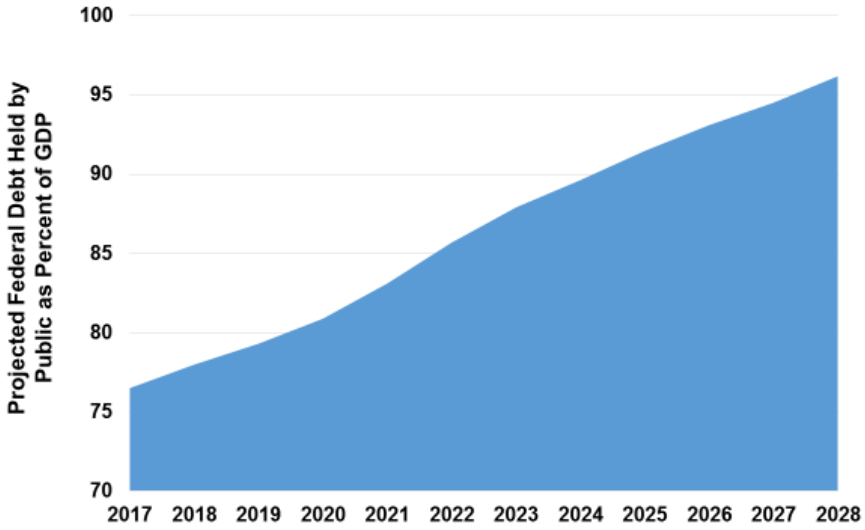
Figure 31.10 Projected Annual Deficit as a Percent of GDP



Source: Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028*

The federal debt held by the public is projected to increase from about 75 percent of GDP in 2017 to about 95 percent by 2028 (Figure 31.11). According to the CBO analysis, which followed passage of the Tax Cut and Jobs Act of 2017: "Federal budget deficits are set to increase rapidly [in 2018] and over the next four years, and then to remain largely stable relative to the size of the economy—but at a very high level by historical standards—over the rest of the projection period."

Figure 31.11 Projection for Federal Debt Held by the Public



Source: Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028.*

In addition to the 2017 tax cuts, the CBO has identified four reasons that deficits are projected to remain at relatively high levels even as the economy stabilizes:

1. The demographic pressures of an aging population
2. An increase in health-care costs
3. An increase in federal subsidies for health care
4. An increase in interest payments on the federal debt

Note that the first three factors are closely related and suggest that a focus on health care should be an important component of any significant long-term budgetary reforms in the United States. The CBO explains:

> The aging of the baby-boom generation portends a significant and sustained increase in coming years in the share of the population that will receive benefits from Social Security and Medicare and long-term care services financed through Medicaid. Moreover, per capita spending on health care is likely to continue to grow faster than per capita spending on other goods and services for many years. . . . Without significant changes in the laws governing Social Security, Medicare, and Medicaid, those factors will boost federal outlays as a percentage of GDP well above the average of the past several decades. . . Unless the laws governing those programs are changed—or the increased spending is accompanied by sufficiently

lower spending on other programs, sufficiently higher revenues, or a combination of the two—deficits will be much larger in the future than they have tended to be in the past.[9]

Social Security and Medicare taxes and outlays are, as we have seen, considered "off budget." In other words, Social Security taxes are, for example, meant to finance Social Security benefits, not military or social expenditures. One might, therefore, justifiably question whether old age or health-related taxes and spending should be affected by the debate over the deficit.

The reality is, unfortunately, more complex. Since, as noted earlier, one of the many federal government creditors (i.e., buyers of Treasury bonds) is the Social Security trust fund itself, many of the hundreds of billions of dollars held in the fund are invested in government debt. Social Security recipients are therefore, in part, paid from the income as federal debt held by the Social Security system comes due. This reinforces concerns about future sustainability of the deficit. As the number of retirees grows relative to the working age population (which contributes Social Security taxes), full payment of Social Security benefits will require an additional contribution from the Federal budget, increasing the size of the deficit and eventually putting Social Security payouts in jeopardy(see Box 31.2).

BOX 31.2 HOW CAN THE U.S. SALVAGE SOCIAL SECURITY?

In its most recent report to Congress, the Social Security Board of Trustees projects that the Social Security program's funds will be depleted by 2034, after which only 79 percent of what was promised to American retirees will be paid out. The "crisis" of Social Security isn't that it's going bankrupt or that there won't be any benefits paid out after 2034. It's that the system may not be able to pay all of what retirees put in and were promised—an issue that, according to many polls, is very important to many Americans both young and elderly.

What can be done to put Social Security on a sounder basis before 2034? A number of possible solutions have been proposed:

- Raising the payroll tax by about 2 percent, which would be enough to make Social Security solvent for the next 75 years.
- Raising or eliminating the cap on the Social Security payroll tax. The Social Security tax only applies to income earned below a certain threshold—$128,400 in 2018. It is thus regressive, taking a higher proportion of income from lower-income taxpayers. Eliminating the cap would make the tax less regressive by requiring more affluent taxpayers to contribute more.
- Raising the retirement age, which would reduce the amount of benefits paid out over the lifetime of recipients.
- Indexing benefits to inflation using techniques such as the chained CPI (discussed in Chapter 20) that yield a smaller annual increase in benefits.

There really are only two basic answers to the Social Security problem: increase revenue or reduce benefits. Any potential solution will thus run into political

opposition from those who would pay higher taxes or receive lower benefits. To be politically feasible, any potential compromise needs to be perceived as fair as well as effective in preserving income security for everyone in the system. Measures such as raising the retirement age would disproportionately harm lower-income individuals, as they rely more heavily on Social Security benefits, and would therefore be likely to encounter significant political opposition.

Source: Bouree Lam, "How Can the U.S. Salvage Social Security? *The Atlantic*, April 2016.

The issues of meeting growing needs and of diminishing tax revenues are linked. Assuming that the CBO projections on deficit increases are correct, lower tax receipts will aggravate problems such as the adequate funding of Social Security and health costs. Advocates of the 2017 tax cuts argued that the positive effect of the tax cuts on the economy will, over the long term, bring in higher revenues—essentially the "supply-side" argument discussed above. Experience so far has shown that, while tax cuts can partly "pay for themselves" through promoting higher growth and revenue, the overall effect of tax cuts is higher, not lower, deficits. Critics of the 2017 tax cuts point out that lower revenues resulting from the tax cuts, which mainly benefit high-income individuals and corporations, will increase pressure to cut social programs such as Social Security, Medicare, and Medicaid in the future.

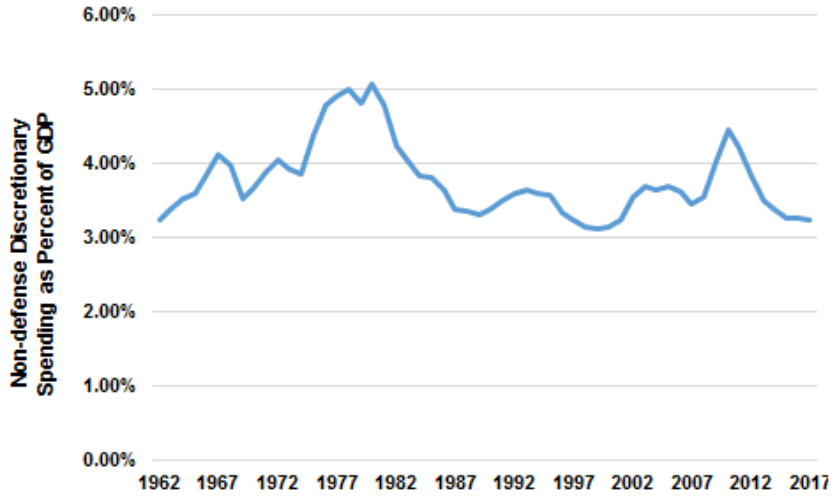
5.2 POLICY CHOICES

The principle that the United States requires long-term budgetary reform is widely accepted. The 2017 tax cuts, however, brought deficit issues to the forefront as a more immediate problem. As noted earlier, the deficit had fallen to a low of 3.2 percent of GDP by 2016, or $527 billion. But as of 2018 the deficit was "set to widen significantly in the next few years, and is expected to top $1 trillion in 2020 despite healthy economic growth."[10] In 2018, this projection for a $1 trillion deficit was advanced to 2019 as a result of the Trump administration tax cuts.[11] As implied in the preceding CBO quotation, the basic math dictates that the choices for reform are limited to three options:

1. Revenue (i.e., tax) increases
2. Spending decreases
3. Some combination of revenue increases and spending decreases

The controversial issues concern *which* taxes should be increased (and for whom), and *which* expenditures should be cut. The recent patterns of Federal spending and revenues give some indications of what the options for the future may be. Federal spending declined from a peak of 24.4 percent of GDP in 2009 to 20.9 percent in 2017. It is, however, projected to increase somewhat over the next decade, to just over 22 percent of GDP. Most of this increase will be due to either military spending or debt financing. Non-defense discretionary spending, in contrast, has been declining as a share of GDP since 2010, and is expected to continue declining, according to the Center on Budget and Policy Priorities (Figure 31.12).[12]

Figure 31.12: Non-Defense Discretionary Spending as Percent of GDP



Source: Congressional Budget Office; Office of Management and Budget.

Federal revenues increased from a low of 14.6 percent of GDP in 2009 to 18.2 percent in 2015, but are expected to fall again as a result of the 2017 tax cuts. A combination of increased spending and falling revenues means increasing deficits (see Box 31.3).

BOX 31.3: DEBT CRISIS COMING?

In April 2018, two groups of economists predicted a coming debt crisis. But they offered two different perspectives on the causes and cures for the crisis. A group of conservative economists at the Hoover Institution warned that "rising interest rates and increasing deficits threaten to build upon each other to send public debt spiraling upward even faster." They pointed to "sharply rising entitlement spending" as the root cause of deficit problems, and recommended that Congress "reform and restrain the growth of entitlement programs" as a remedy.[13]

In response, a group of economists, including former Fed chair Janet Yellen and a group of former chairs of the White House Council of Economic Advisors, argued that "it is dishonest to single out entitlements for blame. . . the primary reason the deficit in coming years will now be higher than expected is the reduction in revenue from last year's tax cuts, not an increase in spending".[14] According to a study by the Congressional Budget Office, the impacts of the 2017 tax cuts would add more than $1.8 trillion to deficits over the period 2018-2028, from lost revenue and higher interest payments.[15] Meanwhile

"the main entitlement programs are Social Security, Medicare, veterans' benefits, and Medicaid. These widely popular programs are indeed large and projected to grow as a share of the economy, not because of increased generosity of benefits but because of the aging of the population and the increase in economy wide health costs."[16]

In addition to cutting entitlement programs, the Hoover Institution economists suggest increasing revenues with "pro-growth tax and regulatory policies", and they see the corporate tax cuts adopted in 2017 as a good first step. Yellen and her co-authors agree with some elements of corporate tax reform, but they fault the 2017 bill for simply lowering rates while failing to close loopholes. They see the individual tax cuts as being as "ill-timed stimulus", providing an unneeded boost to an economy already close to full employment. They advocate instead "a balanced approach that combines increased revenue with reduced spending."

Sources: Boskin et al, 2018; Baily et al, 2018.

A range of possible policies for reducing future deficits can be summarized as follows:

Revenue Side Policies

- Increase revenues through growth-promoting policies. This sounds appealing, but the historical record shows that the overall effect of broad tax cuts yields lower, not higher revenues. Some kinds of tax reform, such as lowering rates while closing loopholes, might be revenue-neutral or revenue-positive.

- Increase revenues through repealing tax cuts for upper-income individuals and large corporations. It would also be possible to increase revenues by raising tax rates more broadly, but this would tend to accentuate inequality by penalizing middle and low income earners.

- Increase revenue through new, possibly environmentally oriented, taxes such as taxes on carbon emissions or consumption taxes. These taxes could also have a regressive effect unless accompanied by rebates for lower-income taxpayers.

Spending Side Policies

- Reduce "mandatory" spending on programs such as Social Security, Medicare, Medicaid, and the Affordable Care Act. Cuts to these programs are likely to increase inequity, but spending reductions could be achieved through holding down health care costs, which has already been achieved to some extent in Medicare and through Affordable Care Act provisions

- Reduce discretionary spending in areas such as military, education, highways, scientific research, and the environment. Non-defense military spending is already declining, and with increased infrastructure spending needs, possibilities for reductions in this area are limited.

- Increase efficiency of spending in health care and other areas, seeking more "bang for the buck" including state-federal and public-private collaboration initiatives.

- To the extent that any of the above policies can be successful in reducing deficits and long-term growth of the debt, interest costs will also be reduced.

There is broad agreement that some combination of these policies will be needed to avoid a long-term increase in debt, but which policies to implement remains controversial.

5.4 DEBT AND DEFICITS IN CONTEXT

The debate over debts and deficits should be placed in a larger macroeconomic context as well as a social and environmental context. Given the strong negative impacts of wide inequalities on the social and economic health of a society, it makes sense that major federal policies, regarding both spending and taxing, should emphasize reducing inequality. Addressing environmental concerns and improving infrastructure are also important priorities.

Our review of the history of debt and deficits indicates that neither is inherently bad for the economy, and that deficits in times of recession may be essential to helping the economy recover. But some degree of balance is required. Deficits must be limited as a percent of GDP, and long-term increases in the debt burden should be avoided. This represents a major challenge, but policies are available to promote both a healthy economy and a manageable debt, provided such policies can gain sufficient political support.

Discussion Questions

1. Do you think that we can reduce deficits while also avoiding an increase in tax rates? Why would political leaders consider tax hikes? Should everyone experience the same increase?
2. Are there tax policies that can reduce the deficit while also addressing social and environmental problems?

REVIEW QUESTIONS

1. What is the difference between the national debt and a deficit?
2. What years were debt/GDP levels the highest in the United States? What years were the lowest?
3. What was the role of the national debt in the early period of U.S. history? What was Hamilton's vision for the U.S national debt?
4. How did the national debt picture change with the New Deal and World War II?
5. What factors contributed to the federal surplus during the Clinton administration, and why did it turn into a deficit in the following Bush administration?
6. Summarize some of the potential problems with government debt.
7. What does it mean to monetize the debt?
8. How do European policies of austerity differ from U.S. policies regarding debt and deficits?
9. What do we mean by "twin deficits"? How are the two types of deficits related?
10. What are the pros and cons of a balanced budget amendment?

EXERCISES

1. Go to Federal Reserve Economic Database (http:// research.stlouisfed.org/fred2/), select 'browse data by category' and look in national accounts for recent data on the U.S. national debt as a percent of GDP and recent figures on budget deficits. What does this tell you about recent trends? Compare the period 1990–2007 to more recent years. Do the figures indicate that we may be returning to a more "normal" situation regarding debt and deficits?
2. Search the Internet and locate relatively recent debt / GDP data for European countries. Construct a table of eurozone members and their debt / GDP ratios based on your search. Review the convergence criteria for participation in the eurozone presented in the chapter. Don't forget to document your source(s)! What did you discover in this exercise? Explain your answer.
3. The chapter identifies and explains several reasons why it is inappropriate to compare the government debt to the debt of a private citizen. Which of these explanations are consistent with the presentation in the chapter?
   a. Governments have the ability to "roll over" their debt more or less endlessly.
   b. Governments cannot default on their debt obligations.
   c. A significant portion of government debt is owed to U.S. citizens.
   d. The U.S. government pays interest on its debt in dollars that it prints.
   e. Government debt is always used to finance investment.
4. The chapter identifies and explains several reasons why we are likely to observe relatively high deficits in the U.S. even as the economy stabilizes. Which of these explanations is consistent with the chapter's presentation?
   a. Health care costs are expected to continue to increase.
   b. Young adults are having too many children and that creates demographic pressures.
   c. Federal subsidies of health care are expected to grow.
   d. The rising costs of higher education will contribute to deficits.
   e. Interest payments on the debt will likely increase in the future.
5. The chapter is very clear that it's dangerous to assume that, "government debt is never a concern." Which of the following are reasons articulated in the chapter for why debt can be a concern?
   a. Foreign holders of U.S. debt may decide to sell their bonds.
   b. A larger share of future budgets must be devoted to interest payments.
   c. It is always unwise for governments to get into debt
   d. Interest payments to high-income individuals could exacerbate income inequality.
   e. Deficit spending during a recession will only make the economic downturn worse.

6. Match each concept in Column A with a definition or example in Column B.

Column A	**Column B**
a. Debt	1. The portion of the gross federal debt that is owed to individuals or groups within the country
b. Deficit	2. A congressionally mandated limit on the size of the federal debt
c. Gross federal debt	3. The portion of the gross federal debt that is owed to foreign individuals or groups

d. Debt held by the public
e. Internal debt
f. External debt
g. Monetizing the debt
h. Debt ceiling
i. Austerity
j. Convergence criteria

4. A stock variable that represents the accumulation of deficits over many years
5. The gross federal debt minus the debt owed to other government accounts such as Social Security and Medicare
6. A policy of deficit cutting that reduces public expenditures and/or raises taxes to balance the budget
7. A flow variable that measures the excess of spending over revenue collections
8. The requirements that EU countries must satisfy as a condition for participating in the Eurozone
9. The purchase of new debt from the Treasury Department by the Federal Reserve
10. Total amount owed by the federal government to all claimants, including foreigners, the public in the United States, and other government accounts

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NOTES

[1] The federal fiscal year runs from October to September, so fiscal 2017 is October 2016 to September 2017, and fiscal 2018 is October 2017 to September 2018.
[2] Although the arithmetic requires that the debt rise when the government is in deficit—because the only way to finance a deficit is to borrow money—in the case of a surplus it is possible for the government to hold some funds in reserve, for example, to finance future expenditures. It is usually the case, however, that governments will use some or all of a surplus to reduce existing debt.
[3] Federal Reserve Bank of St. Louis, FRED Economic Database, *Federal Debt: Total Public Debt as Percent of Gross Domestic Product.* https://fred.stlouisfed.org/series/GFDEGDQ188S.
[4] Wasson and McGregor, 2018.
[5] This process is often described – or depending on one's viewpoint, derided – as "printing money."
[6] The other three, which need not concern us here, are (1) an inflation rate no more than 1.5 percent higher than the average in the three best-performing EU members; (2) not having devalued domestic currency for at least two years; and (3) long-term interest rate no higher than 2 percent above that in the three best EU inflation performers.
[7] The "dual mandate" results from amendments to the Federal Reserve Act in 1977. Prior to 1977, the Fed did not have a history of pursuing job growth and was viewed primarily as an inflation fighter.
[8] Congressional Budget Office, 2018.
[9] Congressional Budget Office, 2012.
[10] Kaplan, 2018.
[11] Wasson and McGregor, 2018.
[12] Center on Budget and Policy Priorities, 2017.
[13] Boskin et al, 2018.
[14] Baily et al., 2018.
[15] Kaplan, 2018.
[16] Baily et al., 2018.