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Federal Debt: Answers to Frequently Asked Questions



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The Honorable William V. Roth, Jr.
Chairman
Committee on Finance
United States Senate

The Honorable Daniel Patrick Moynihan
Ranking Member
Committee on Finance
United States Senate

This document responds to your request for a simple presentation of information on the federal debt, including how debt is defined in its various forms; how it is measured and how much it has grown; who holds federal debt; and why it is important to the national economy. As you requested, the prose is intended to be clear, concise and easily understandable to provide information to a nontechnical audience.

We are sending copies of the document to the Chairmen and Ranking Members of the House and Senate Budget Committees and Appropriation Committees, the House Committee on Ways and Means and the Secretary of the Treasury, the Director of the Office of Management and Budget, and the Director of the Congressional Budget Office. Copies will be made available to others upon request.

This document was prepared under the direction of Paul L. Posner, Director of Budget Issues, who may be reached at (202) 512-9573 if there are any questions.

Gene L. Dodaro
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Abbreviations

CBO	Congressional Budget Office
GDP	Gross Domestic Product
OECD	Organization for Economic Cooperation and Development
OMB	Office of Management and Budget

Preface

Although the federal government has carried debt throughout virtually all of U.S. history, over the past two decades large annual budget deficits have sharply increased the debt owed the public to \$3.7 trillion and its associated annual interest payments to \$241 billion. These deficits are causing concern among both policymakers and the public. The debt is now about one-half the annual size of the U.S. economy, a level that has rarely been reached in U.S. history. Policymakers have responded in recent years by passing several deficit reduction initiatives which have helped shrink annual deficits, and they have proposed further measures to slow, or even halt, the growth in the debt. Over the longer term, however, the retirement of the baby boom generation beginning around 2010 will place additional pressures on the budget, which will require further action to prevent the debt from rising rapidly. Without any action, annual deficits would rise to unsustainable levels over the next 30 years.

Many citizens are recognizing that a rising federal debt has serious consequences for them. The large deficits that cause the debt to rise constrain future growth in incomes and living standards by reducing the amount of U.S. savings available for private investment. Deficits may also put upward pressure on interest rates, which increases household borrowing costs for homes, cars, and college loans. In addition to these economic consequences, the federal budgetary costs of large deficits and growing debt also directly affect U.S. citizens—15 cents out of every federal budget dollar spent is used to pay interest on the debt rather than to finance other public priorities. Interest spending has grown at an average rate of 10 percent per year since 1980 and, with Social Security and defense, is now one of the three largest spending items in the federal budget. Interest spending is the least controllable item in the

budget since it is determined by the amount of past borrowing and interest rates. Interest rates pose a particular risk to future interest spending, since they are primarily market-determined and largely beyond the direct control of the federal government. Thus, the most direct way policymakers can help bring down interest spending is to borrow less (that is, reduce the deficit).

Although many excellent articles, reports, and books have been written on the debt and its effects, these discussions tend to be complex and technical. As a result, there is a substantial amount of misunderstanding and confusion surrounding this issue. For example, one point that is sometimes overlooked is that even if the Congress and the President agree to balance the annual budget within the next several years, the dollar amount of the federal debt would continue to grow until balance is actually achieved. Although declining deficits and, ultimately, budget balance could reduce the debt as a share of the economy, the dollar amount of debt will not decline unless there is a budget surplus.

This document addresses questions that are frequently asked about the federal debt, deficits, and interest rates. We have organized these questions into three sections:

- Trends in Federal Debt, Deficits, and Interest;
- Sales and Ownership of Federal Debt; and
- Effects of the Federal Debt.

For easy access to definitions of key terms, we include a glossary at the end of this document. All of the terms contained in the glossary appear in **bold type** in the text the first time they are used. For readers who are interested in more detailed

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information on the topics covered here, we also include a short bibliography. We particularly recommend a 1993 Congressional Budget Office study titled Federal Debt and Interest Costs.

Trends in Federal Debt, Deficits, and Interest

Q. How large is the federal debt and how has it changed over time?

A. There are two main measures of federal **debt—debt held by the public** and **gross debt**. The debt held by the public is the measure commonly used because it reflects how much of the nation's wealth is absorbed by the federal government to finance its obligations and, hence, best represents the current impact of past federal borrowing on the economy.¹ The federal debt held by the public was \$3.7 trillion at the end of 1996.² This amount is five times greater than it was in 1980, without adjusting for inflation. In constant (i.e., inflation-adjusted) dollars, the debt is about three times greater than its 1980 level. In contrast with this recent period of rapid growth, from the end of World War II to 1980, the debt expanded much more gradually. (See figure I.1.)

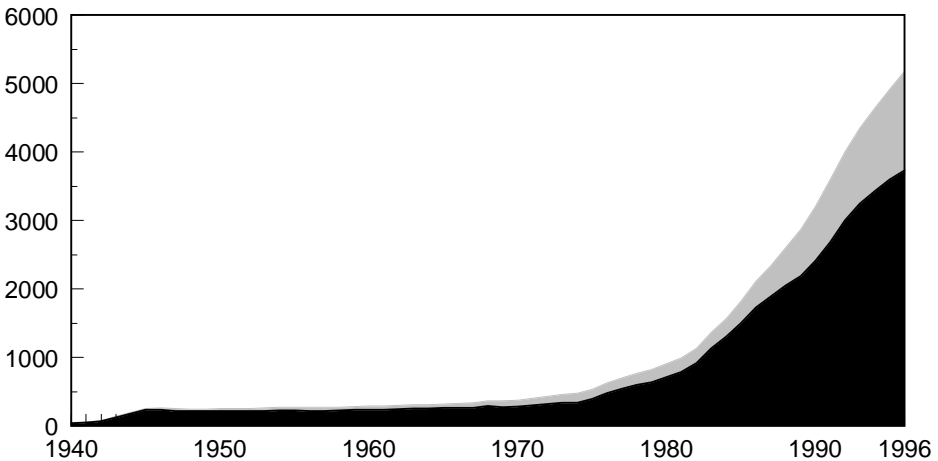
¹Unless otherwise noted, all references to the federal debt mean the debt held by the public. This measure includes debt held by the **Federal Reserve System**. When Federal Reserve debt is excluded, the remaining amount is referred to as privately-held debt.

²Unless otherwise noted, any reference to a particular year means the **fiscal year** of the federal government (October 1 to September 30).

Section I
Trends in Federal Debt, Deficits, and
Interest

Figure I.1: Gross Federal Debt and Its Components (1940-1996)

Dollars in billions



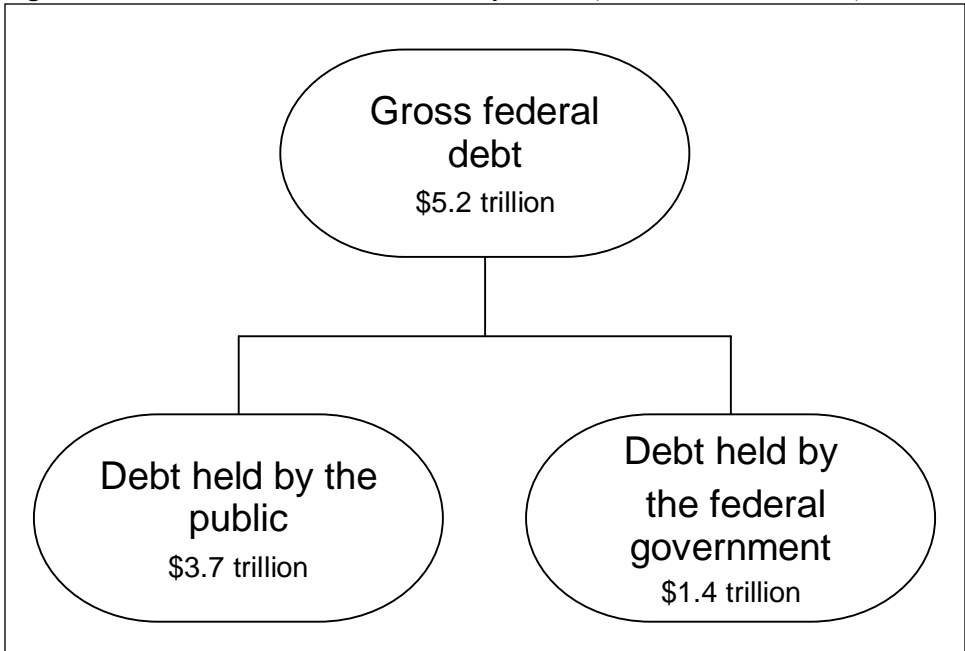
■ Debt held by the public □ Debt held by government accounts

Sources: U.S. Department of the Treasury, Office of Management and Budget (OMB).

The gross debt, which totaled \$5.2 trillion at the end of 1996, captures all of the federal government's outstanding debt. This measure is composed of debt held by the public plus **debt held by government accounts**—\$1.4 trillion. (See figure I.2.) Debt held by government accounts represents the amount of money that is loaned by one part of the government, primarily **trust fund accounts** such as Social Security, to another part. Gross debt, excluding some minor adjustments, is the measure that is subject to the federal **debt limit**.

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Figure I.2: Gross Federal Debt and Its Components (End of Fiscal Year 1996)



Note: Numbers do not add to total due to rounding.

Source: U.S. Department of the Treasury.

The amount of a borrower's debt by itself is not a particularly good indicator of the debt's burden. If size were the only thing that mattered, a wealthy individual with a large mortgage would be judged to have a greater debt burden than a person of modest means with a smaller mortgage. In other words, a borrower's income and wealth are also important in assessing the burden of debt. Therefore, to get a better sense of the burden represented by the federal debt, debt should be viewed in relation to the nation's

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income. A commonly used measure of national income is the **Gross Domestic Product** (GDP). The GDP is the value of all of the goods and services produced within the United States in a given year. The GDP is a rough indicator of the economic base from which the government draws its revenues. Using the comparison of federal debt to GDP, the federal debt burden has also grown significantly since 1980.

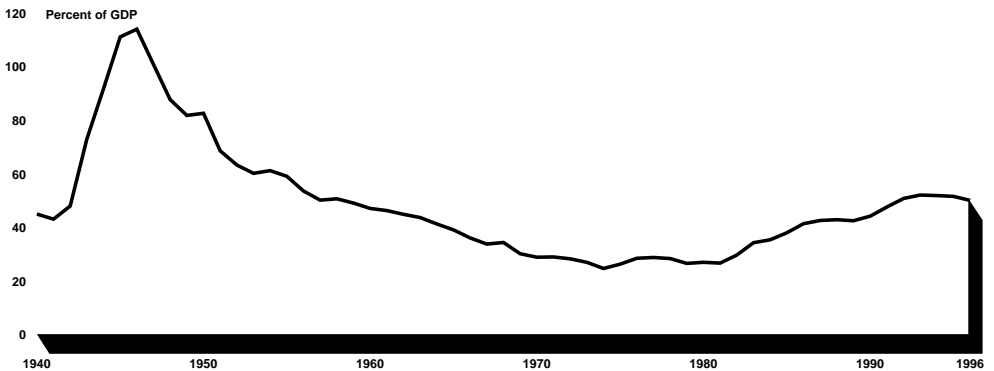
Currently, the debt equals about one-half of GDP. This level is very high by historical standards. In the past, the debt-GDP measure has only risen substantially as a result of wars and recessions. Although debt levels approached today's level during the Great Depression, the only time the debt-GDP measure has exceeded the current level was during World War II and the early postwar period. The peak period in U.S. history was reached immediately after World War II when, as a result of wartime borrowing, the federal debt was 114 percent of GDP, meaning that it exceeded the annual output of the economy.³ After the war, spurred by economic growth and **inflation**, this measure fell dramatically over the next three decades to a postwar low of 25 percent in 1974. (See figure I.3.) This decline occurred even though the federal government often ran small **deficits** during these years, which increased the dollar value of the debt. Beginning in the mid-1970s, the debt-GDP ratio began to rise gradually, and from the early 1980s to the early 1990s, it grew rapidly. In the last couple of years, the debt-GDP measure has stabilized and even dropped slightly, reflecting recent progress on reducing the deficit and continued economic growth. But without further deficit reduction actions, it is expected to

³None of the GDP data used in this report reflect the recent baseline revisions in this measure, except the data that appear in figure III.2. Since the revised data are not available for years before 1960, we use the pre-revision data in order to preserve comparability.

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begin rising gradually over the next decade and more rapidly after 2010, as will be discussed below.

Figure I.3: Debt Held by the Public (1940-1996)



Sources: OMB, U.S. Department of Commerce, U.S. Department of the Treasury.

The federal government is not the only borrower that has increased its debt since 1980. The borrowing of individuals, businesses, and state and local governments all rose significantly during this period but not as much as the federal debt. In 1980, the federal debt was 18 percent of all business, consumer, and government debt in the United States. By 1995, the federal share had risen to 26 percent.

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Q. What is the debt limit? Does it provide a way to control the amount we borrow?

A. Prior to 1917, Congress approved each issuance of debt. In 1917, to facilitate planning in World War I, the Congress established a dollar ceiling for federal borrowing, which has been raised periodically over the years. This limit, which is currently \$5.5 trillion, applies to nearly all of the gross debt.⁴ The debt limit receives considerable public attention periodically when the Congress and the President debate raising the limit to accommodate further borrowing.

The debt limit does not determine federal borrowing needs. These needs result from all of the government's prior revenue and spending decisions. These budget decisions, along with the performance of the economy, determine what the government's borrowing needs will be. Therefore, whenever the government's borrowing approaches the debt limit, the Congress and the President must eventually raise the limit or not pay the government's bills as they come due.

Under the recent proposals for balancing the budget, the federal government would continue to run deficits for the next 6 years before reaching balance in 2002. Since each year's deficit adds to federal borrowing needs, the amount of federal debt held by the public would continue to rise through 2001. The debt limit would need to be raised periodically to accommodate this growing federal debt.

In fact, even if the budget is balanced in 2002, the debt limit would still need to be raised. Balancing the budget would essentially halt the growth of debt held by the public, but the debt limit applies to the gross

⁴A very small amount of the gross debt is excluded from the debt limit (less than 1 percent at the end of 1996). The amount excluded is mainly issued by agencies other than the Department of the Treasury, such as the Tennessee Valley Authority.

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debt (with minor exceptions), which includes debt held by federal government trust funds like Social Security.⁵ Taken together, these trust funds have been running a large surplus in recent years which is invested in special federal government securities that cannot be traded in financial markets. This trust fund surplus currently offsets a portion of the deficit in the rest of the budget. In 2002 and for several years thereafter, the trust funds are projected to continue running surpluses, which means that the gross debt will keep rising as the rest of the government continues borrowing from the trust funds. However, once trust funds start spending more than they take in, they will redeem their government securities for cash. Unless offsetting actions are taken, this cash will come from additional borrowing from the public.

Q. What is the deficit and what is its relationship to the debt?

A. The federal deficit (also called the **“unified deficit”**) is the difference between total federal spending and revenue in a given year. To cover this gap, the government borrows from the public. Each yearly deficit adds to the amount of debt held by the public.⁶ In other words, the deficit is the annual amount of government borrowing, while the debt

⁵In addition to trust funds, other government accounts, such as the Bank Insurance Fund, also hold federal debt securities. However, these investments represent only a small portion of the total federal debt held by government accounts.

⁶While the deficit is approximately equal to the yearly change in the debt held by the public, several minor types of transactions referred to as “other means of financing” also contribute to changes in debt totals. These “other means” include changes in the Treasury Department’s cash balances, outstanding payment obligations (such as checks that have not yet been cashed and accrued interest), and net disbursements by the government’s loan guarantee and direct loan accounts.

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represents the cumulative amount of outstanding borrowing from the public over the nation's history.⁷

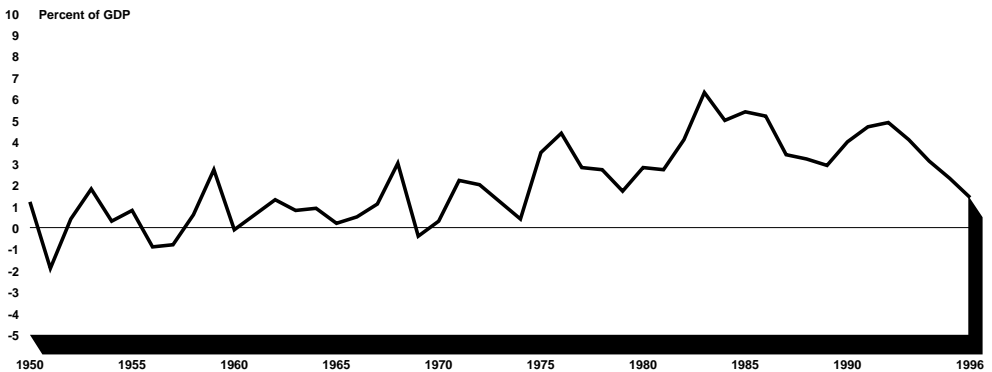
The debt held by the public will continue to increase as long as the federal government runs a deficit. Balancing the budget would essentially stop the growth of this type of debt because the government would not be borrowing any additional funds from the public. Balancing the budget would not, however, reduce the amount of debt because the government does not retire a portion of its principal each year. Instead, the federal government pays only the interest costs of its debt. The principal is paid off when bonds come due. The cash to pay the principal comes from additional borrowing; hence the debt is "rolled over" or refinanced. To reduce its debt, the government would need to run a budget surplus and use the surplus funds to pay off the principal of maturing debt securities.

In 1996, the federal deficit was \$107 billion, or 1.4 percent of GDP. The federal government has run deficits continuously since 1969 after posting several budget surpluses in the two decades following World War II. (See figure I.4.) Deficits generally increased in size during the 1980s, before declining over the past few years. The 1996 deficit was the smallest as a share of the economy since 1974. However, the **Congressional Budget Office (CBO)** projects that, unless further action is taken, the deficit will rise gradually beginning in 1997 and more rapidly when the baby boom generation begins to retire around 2010. Thus, additional measures to reduce the deficit will be needed just to sustain recent progress.

⁷Annual borrowing in this case means the net amount that the government borrows from the public each year, or the increase in the debt outstanding from the beginning of the year to the end. Since the government also borrows to pay off the principal of maturing debt securities, in effect "rolling over" this debt, the total amount of new debt securities issued by the Treasury to the public exceeds the amount of the deficit.

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Figure I.4: Federal Deficit (1950-1996)



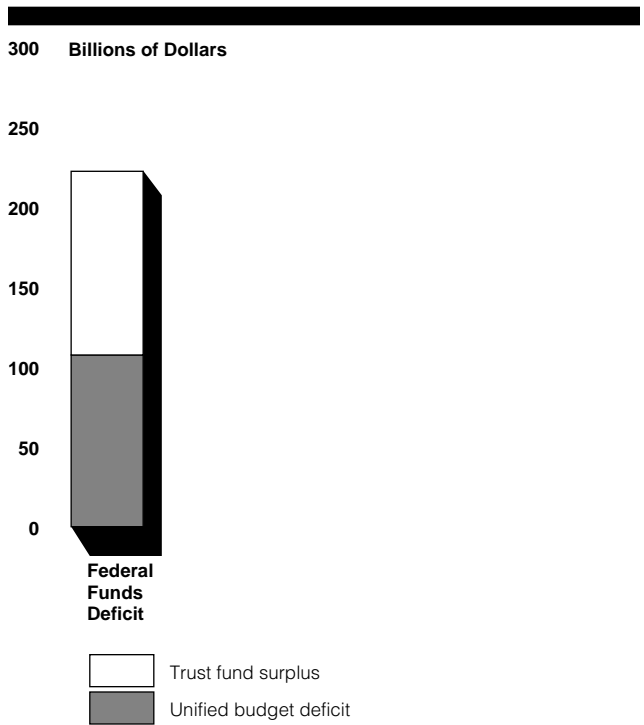
Sources: OMB, U.S. Department of Commerce, U.S. Department of the Treasury.

Since the unified budget deficit reflects the amount of annual federal borrowing that affects the economy, it is the deficit measure we will rely on in this report. However, another measure is necessary to explain annual changes in the gross federal debt. As noted above, the gross debt includes the debt held by federal trust fund accounts. These trust funds have been running cash surpluses in recent years which are invested in **U.S. Treasury securities**. These surpluses reduce the need for the federal government to borrow from the public. If the trust fund account cash surpluses—and the interest they earn from the Treasury—are excluded from the budget, the gap between federal revenue and spending is higher than the unified budget deficit. This gap is called the **federal funds deficit**, and, in 1996, it totaled

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\$222 billion. (See figure I.5.) Unlike the unified deficit, the federal funds deficit captures the amount of annual Treasury borrowing and interest payments involving both the credit markets and federal government trust fund accounts.

Figure I.5: Federal Funds Deficit and Its Components (Fiscal Year 1996)



Source: U.S. Department of the Treasury.

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Q. How large is interest spending and how has it changed over time?

A. Interest on the debt is the amount paid by the federal government to its lenders in exchange for borrowing the money. These interest payments are made periodically throughout each year according to the specific type of debt security and its **interest rate**. **Net interest** represents largely the interest paid on the debt held by the public.⁸ Net interest is an important measure of the current burden of servicing the debt, because it reflects the amount the government pays to its outside creditors.⁹

In 1996, net interest payments were \$241 billion. These payments have grown at an average rate of 10 percent per year since 1980. (See figure I.6.) In 1996, net interest was 3.2 percent of GDP. In contrast, it was only 1.9 percent of GDP in 1946 despite massive wartime borrowing. (See figure I.7.) This comparison illustrates the importance of interest rates, as well as the amount of debt, in determining the government's interest burden. Although the debt incurred during World War II was extremely large, interest rates were much lower than they are today. (See figure I.8.)

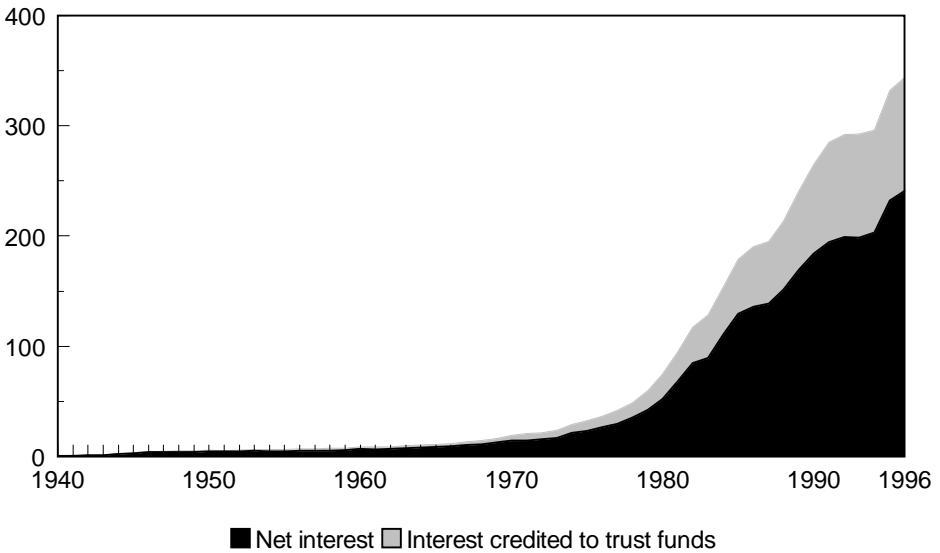
⁸In addition to the interest that the federal government pays on debt held by the public, the government also earns some interest from various sources and pays interest for purposes other than borrowing from the public. These amounts are only a small portion of net interest and, taken together, slightly reduce its total.

⁹Another measure of interest spending, **gross interest**, is composed of net interest and the interest credited to federal government trust funds and other government accounts that hold federal debt. In 1996, these interest credits totaled \$98 billion. The method of crediting trust fund interest is an accounting transaction which has no current budgetary or economic effect. One part of the government pays and another part receives—there is no net change in current spending. This interest, along with all other trust fund revenue, is used in determining the trust fund surplus, which is invested in government debt securities.

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Figure I.6: Gross Federal Interest and Its Components (1940-1996)

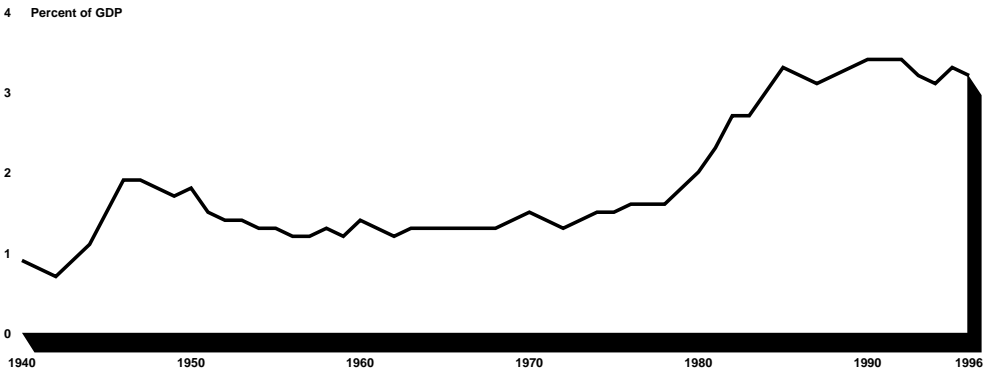
Dollars in billions



Sources: CBO, OMB, U.S. Department of the Treasury.

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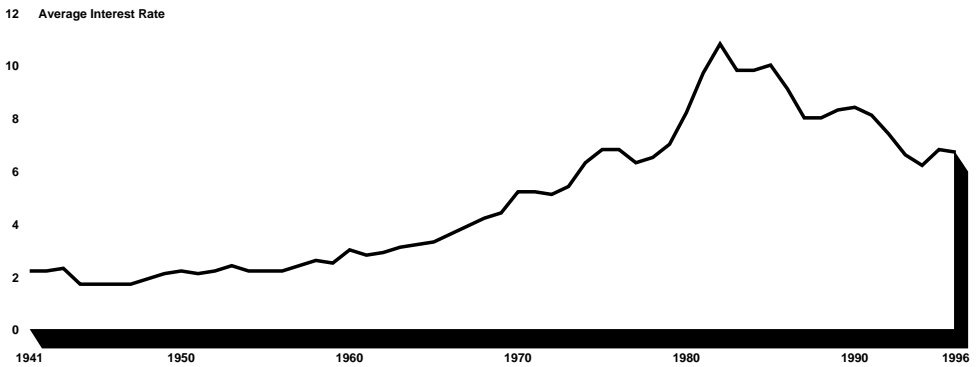
Figure I.7: Net Interest (1940-1996)



Sources: OMB, U.S. Department of Commerce, U.S. Department of the Treasury.

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Figure I.8: Average Interest Rate on the Federal Debt (1941-1996)



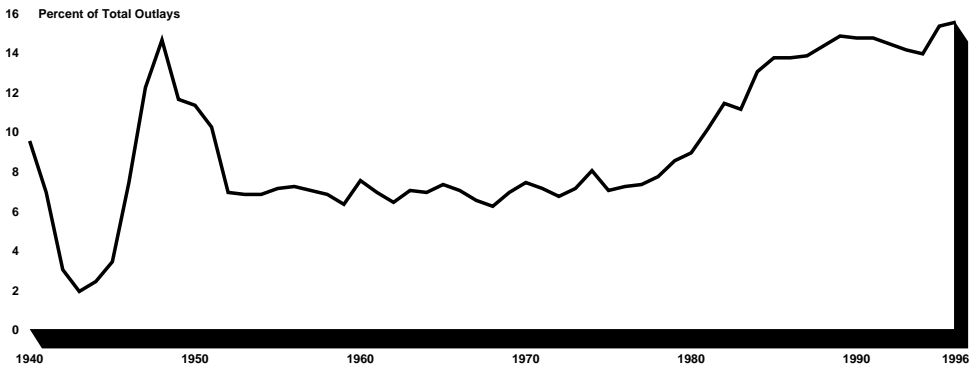
Note: The average interest rate was calculated by dividing net interest payments by the previous year's debt held by the public.

Sources: OMB, U.S. Department of the Treasury.

Another useful way to consider the interest burden is as a share of total federal spending. By this measure, net interest has also risen sharply in recent years—from 9 percent of total spending in 1980 to 15 percent in 1996—after remaining relatively flat since the early 1950s. (See figure I.9.) The impact of net interest spending on the rest of the budget will be further discussed in section III.

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Figure I.9: Net Interest as a Percent of Total Federal Spending (1940-1996)



Sources: OMB, U.S. Department of the Treasury.

Sales and Ownership of Federal Debt

Q. How does the federal government borrow?

A. The federal government borrows by issuing securities, mostly through the Treasury Department. Most of the securities that constitute debt held by the public are marketable, meaning that once the government issues them, they can be resold by whoever owns them.¹ These marketable securities consist of bills, notes, and bonds with a variety of maturities ranging from 3 months to 30 years. The mix of securities changes regularly as new debt is issued. At the end of 1996, the average maturity for marketable debt (excluding Federal Reserve holdings) was 5 years and 3 months.

The mix of securities is important because it can have a significant influence on interest payments. For example, a long-term bond typically carries a higher interest rate than a shorter-term security due to investors' perceptions that longer-term securities are subject to greater risks, such as higher inflation in the future. However, long-term bonds offer the certainty of knowing what your payments will be over a longer period. In the past few years, the Treasury Department has been reducing the average maturity on the debt in an attempt to reduce interest payments.

Q. Who lends to the federal government?

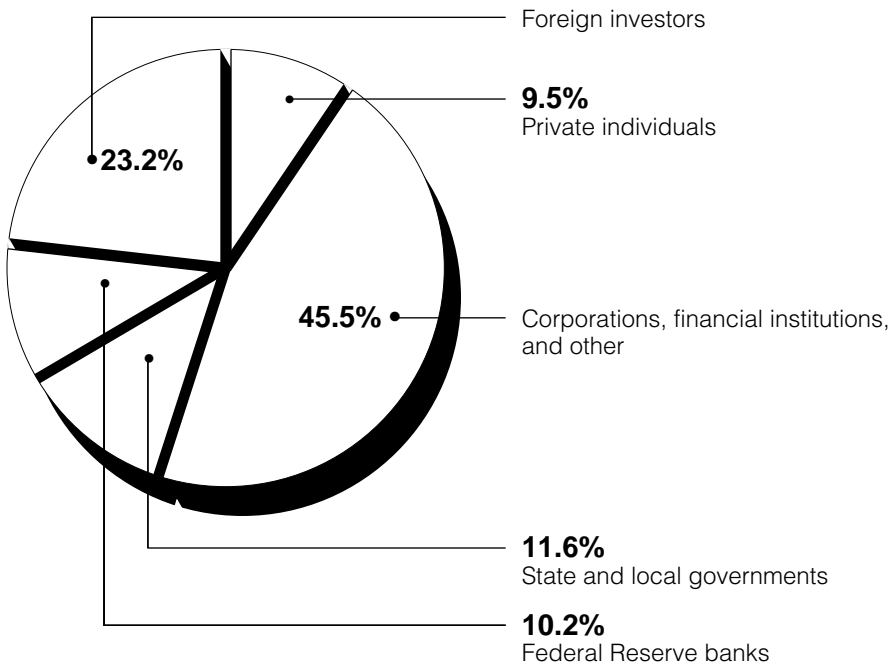
A. The federal debt held by the public is owed to a wide variety of investors, including individuals, banks, businesses, pension funds, state and local governments, and foreign governments. At the end of 1995, the Treasury Department estimated that the largest share of the debt was owned by businesses

¹The government also issues nonmarketable securities, which cannot be resold. Examples of nonmarketable securities include savings bonds and special securities for state and local governments. The securities held by government trust funds and other government accounts are also nonmarketable.

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Sales and Ownership of Federal Debt

and various (mainly financial) institutions. This information is estimated because many securities are continually resold among investors and the Treasury Department does not track these sales. For a breakdown of the estimated ownership of the debt by type of investor, see figure II.1.

Figure II.1: Estimated Ownership of Debt Held by the Public (September 30, 1995)



Source: U.S. Department of the Treasury.

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Sales and Ownership of Federal Debt

A Treasury security can be purchased by anyone. Although debt ownership is concentrated among businesses and other institutions, many small investors also own debt securities. For example, anyone who owns a United States savings bond holds a portion of the debt. Further, many pension funds own debt securities, so small investors are also represented indirectly through these holdings.

The Treasury Department estimates that about three-quarters of the debt is owed to U.S. investors, which means that interest and principal payments are made mainly to U.S. citizens and institutions. The remaining one-quarter of the debt is owned by foreign investors, who include central banks as well as private investors.² The United States benefits from foreign purchases of government bonds because as foreign investors fill part of our borrowing needs, more domestic saving is available for private investment and interest rates are lower than they otherwise would be. However, to service this foreign-owned debt, the U.S. government must send interest payments abroad, which adds to the income of citizens of other countries rather than U.S. citizens.

²From 1981 to mid-1994, the foreign share of the debt was between 15 and 20 percent. However, between 1994 and 1995, the total increased to about 23 percent, in part due to foreign central banks' attempts to support the value of the dollar by purchasing U.S. government debt.

Effects of the Debt

Q. What are the economic consequences of federal borrowing?

A. Borrowing has both benefits and costs. Many believe that borrowing is appropriate under certain circumstances. For example, some believe that the automatic increase in federal borrowing that occurs during recessions helps the economy by maintaining income and spending levels. Such borrowing occurs in response to the reduced tax receipts that result from a shrinking economy and the increased need for federal benefit payments (e.g., unemployment insurance). War-time borrowing is also widely considered to be beneficial, because such borrowing allows a government to increase defense spending without enacting large tax increases that could be disruptive to the economy.

In addition to wars and recessions, others argue that federal borrowing is also appropriate for investment spending, such as building roads, training workers, or conducting scientific research. If an investment is well chosen, it can ultimately boost worker productivity and economic growth in the long term, producing a larger economy from which to pay the interest on the borrowed funds. If the government wishes to increase its stock of capital, it must make additional investments beyond those necessary to replace aging structures and equipment. Many economists and budget analysts might have a different view of the rapid surge in federal borrowing in recent years if the borrowed funds had been accompanied by increased spending on effective investment programs. However, recent federal borrowing has been accompanied by a decline in federal investment spending as a share of the economy. (See figure III.1.)

Section III
Effects of the Debt

Figure III.1: Nondefense Investment Spending (1980-1995)



Source: OMB.

If federal borrowing is not used for any of the purposes described above, many believe that the costs are more likely to outweigh the benefits. In this case, the benefits of any increased federal spending are likely to be more concentrated in the short term, while the costs tend to occur mainly in the long term. This timing difference can have important implications for different generations. The impact of today's increased borrowing will be felt by tomorrow's workers and taxpayers, who may not fully share in the benefits of the additional spending made possible by the borrowing. To the extent that deficits reduce national investment, they also slow the growth in living standards of future generations.

Federal borrowing can reduce the funds that are available for private investment and put upward

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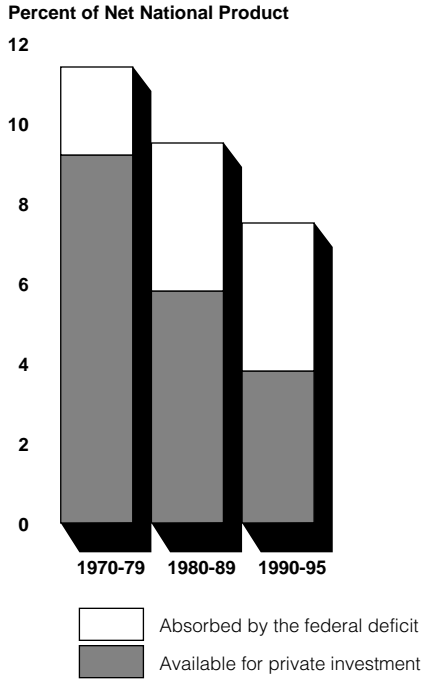
pressure on interest rates. Since the federal government is in competition with private investors for scarce capital, federal borrowing can reduce the amount available for other investors. Government borrowing can be large enough to affect the overall level of interest rates, making borrowing more expensive for individuals and families who take out loans for homes, cars, and college.

The large amounts of federal borrowing in recent years have been particularly troublesome because private saving (the combined saving of households and businesses) has been declining as a share of the economy. These two trends have had a significant impact on the economy—federal deficits are eating up a larger portion of a shrinking pool of private saving, sharply reducing the amount of this saving that is available for private investment. (See figure III.2.) The U.S. saving rate is not only low by historical standards, it has been well below that of many other major industrial countries over the past few decades. From 1960-1994, U.S. net **national saving** as a share of GDP was sixth among a group of seven major industrialized countries. (See figure III.3.) The U.S. also had the third highest debt level of these seven countries.¹ (See figure III.4.)

¹This debt measure includes the debt of state and local governments in the United States. Although it covers more than the U.S. federal debt, it allows for better comparisons with other countries, where the breakdown of responsibilities between the central government and provincial or local governments is often different.

Section III
Effects of the Debt

Figure III.2: Effect of the Federal Deficit on Net National Saving (1970-1995)



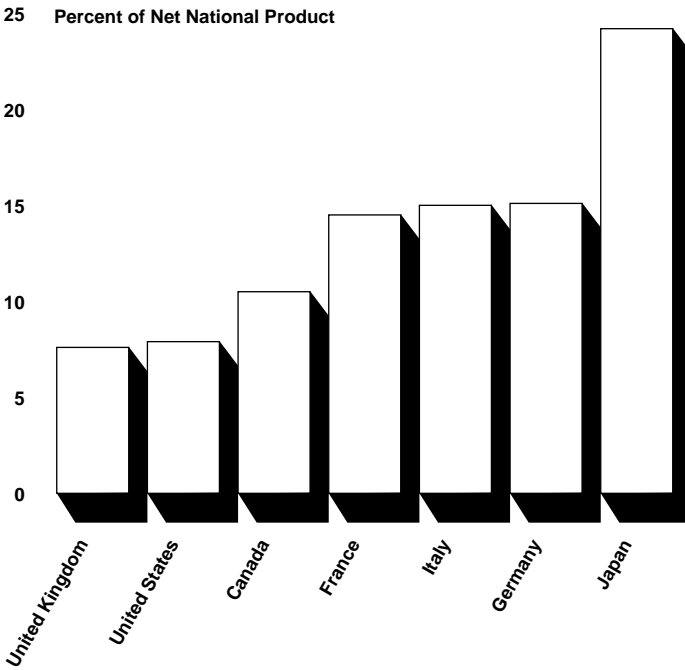
Note 1: Entire bar represents nonfederal saving net of capital depreciation. Nonfederal saving is composed of private saving and the aggregate state and local government surplus/deficit.

Note 2: Shaded portion of bar represents net national saving, which is composed of total private and public sector saving.

Source: U.S. Department of Commerce.

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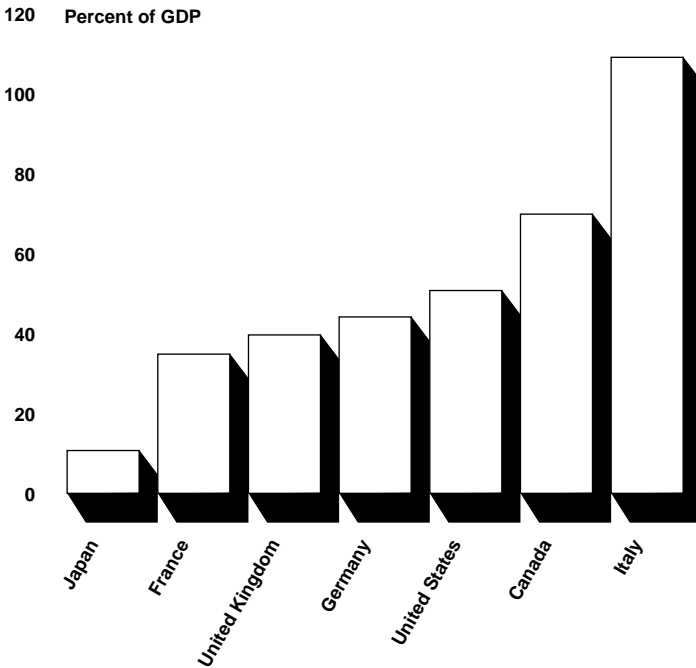
Figure III.3: International Comparison of Average Net National Saving Rates (1960-1994)



Source: Organization for Economic Cooperation and Development (OECD).

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Figure III.4: International Comparison of Net General Government Debt (1995 Estimates)



Source: OECD.

A low national saving rate can have serious implications for the economy, particularly for its long-term growth. Saving provides the resources to build new factories, develop new technologies, and improve the skills of the workforce. Such investments boost workers' productivity, which in turn produces higher wages and faster economic growth. Less

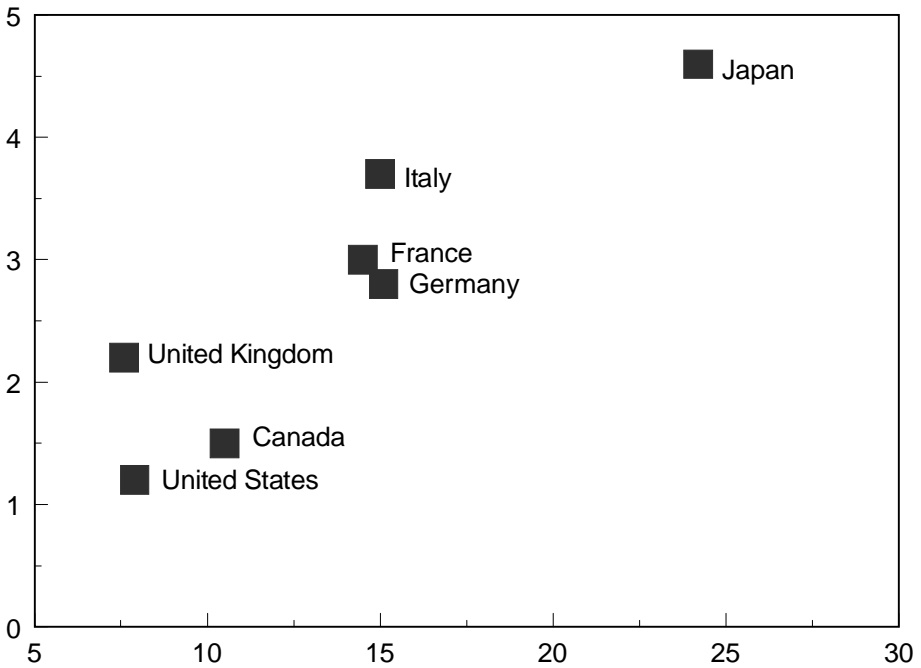
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investment today means slower economic growth tomorrow. An international comparison shows that countries that saved more between 1960 and 1994 experienced higher rates of productivity growth. (See figure III.5.)

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Figure III.5: International Comparison of Saving and Productivity Growth
(1960-1994)

Average Annual Percent Growth in
Labor Productivity



Average Net National Saving
as a Percent of Net National Product

Source: OECD.

A drop in national saving does not necessarily result in an equivalent decline in investment, because the

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United States can borrow from abroad to help finance domestic investment. Indeed, part of the recent decline in national saving has been offset by increased borrowing from foreign investors. As noted above in the discussion on foreign ownership of federal debt, the effects of foreign investment are mixed. While foreign investment benefits the United States by allowing it to invest more than it saves, the return on this investment flows abroad.² Also, there is no guarantee that foreign capital will continue to flow in at these levels, especially because other countries also face future economic and fiscal challenges.

Reducing the federal budget deficit can help address the saving shortfall. When the federal government runs a deficit, it subtracts from national saving. Therefore, if the government reduces the deficit, it raises national saving, although not dollar for dollar. Cutting the deficit and thereby slowing the growth of the debt could help the economy. Some analysts believe that reducing the deficit would help to lower interest rates. For example, the CBO estimates that interest rates would drop by 1.1 percentage points from projected levels if the budget is brought into balance over the next 6 years.³ In addition to providing benefits for consumers, lower interest rates would substantially reduce federal interest costs below the currently projected levels. Regardless of the deficit's effect on interest rates, many analysts believe that deficit reduction would free domestic funds for private sector investment. More investment could help boost worker productivity, economic growth, and living standards.

²For a more detailed discussion of the economic effects of deficits, see Committee for Economic Development, Restoring Prosperity: Budget Choices for Economic Growth, 1992.

³CBO, The Economic and Budget Outlook: Fiscal Years 1997-2006, May 1996.

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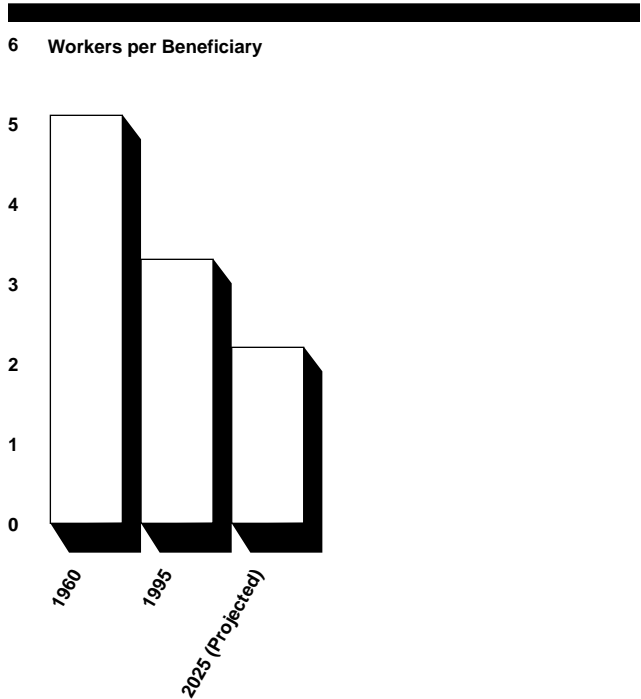
While the annual boost to economic growth would be small, over time the cumulative benefits would be quite significant. For example, in 1995, GAO issued a report simulating the economic effects of different budget policies over the next 30 years.⁴ This study found that, in 2025, the level of per capita GDP (an approximation of living standards) would be 34 percent higher under a balanced budget scenario than under a simulation that assumed no changes in current budget policy.

Although always important, expanding the size of the economy over the long term is particularly critical due to the historic demographic shift occurring as the baby boom generation retires. In 1960, there were 5.1 workers for every Social Security recipient. By 1995, this ratio had fallen to 3.3 workers per recipient. By 2025, it is projected to drop to 2.2 workers per recipient, a 33 percent decline from the 1995 level. (See figure III.6.) A larger future economy would permit tomorrow's smaller workforce to more easily finance the retirement costs of the baby boom generation.

⁴The Deficit and the Economy: An Update of Long-Term Simulations (GAO/AIMD/OCE-95-119, April 26, 1995).

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Figure III.6: Workers Per Social Security Beneficiary (1960-2025)



Source: Social Security Administration.

Preparing for the baby boom generation’s retirement is very important because of the serious implications that this demographic shift has for the future federal debt. Under current federal budget policies, once the baby boom generation begins leaving the workforce around 2010, the debt is expected to grow rapidly due to increased spending on Medicare, Medicaid, and Social Security. The higher debt that results from this spending on retirement programs fuels a steep rise in interest payments, which, in turn, become a major

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contributor to the ballooning debt. With no changes to offset these pressures, GAO's work shows that the annual deficit could rise above 20 percent of GDP, and the debt could grow to more than twice the size of the economy in 2025. The CBO has reached a similar conclusion.⁵ Such levels of debt would place an unsustainable burden on the economy.

Q. How does borrowing affect the federal budget?

A. While borrowing allows the government to provide more services today than it could otherwise afford, the cost is borne tomorrow in the form of interest payments. To make these payments while avoiding larger deficits, the government has to forgo spending money on other national priorities. It also means less is available for unexpected needs. Federal interest payments are, in some ways, similar to the borrowing costs faced by a household, which must set aside some income to make mortgage, car loan, and credit card payments. The larger the loan payments, the less discretionary income the household has. In recent years, interest payments have become an increasingly large share of federal spending, rising from 9 percent of total spending in 1980 to 15 percent in 1996. In other words, 15 cents of every federal dollar spent goes to pay interest on the debt.

By contributing to annual deficits, interest payments can help fuel a rising debt burden unless offset by sufficient economic growth. Rising debt, in turn, can further raise interest costs. In these instances, the federal government is paying interest to finance interest. Indeed, excluding interest on the previous debt, today's budget would actually be in surplus, a result that economists call a **primary surplus**.

⁵CBO, *The Economic and Budget Outlook: Fiscal Years 1997-2006*, May 1996.

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While interest spending contributes to today's deficits, a policy of deficit reduction can turn the dynamics of interest spending in the government's favor. As the deficit declines, the growth in the debt slows, which, in turn, causes interest payments to grow more slowly than they otherwise would have. In other words, deficit reduction slows the effects of the interest spiral described above. When comparing alternative deficit reduction strategies, the interest bonus means that taking early action actually requires fewer cuts in government programs over the long term than a policy in which deficit reduction is delayed. Although early action requires steeper cuts in the short term, it reduces the sacrifices needed to achieve and maintain budget balance over the longer term.

Q. Is interest spending a controllable component of the budget?

A. Unlike any other part of the budget, interest spending is not directly controlled by policymakers, although the Treasury Department's debt management policy may slightly influence interest costs. Rather, interest spending results from all the past budget decisions that have collectively determined the amount of debt held by the public. While, at any given interest rate, additional borrowing will drive up interest payments, interest rates are also an important factor in determining the amount of interest paid. Given the size of the current debt, the federal government is vulnerable to any sustained increase in interest rates. The CBO estimates that if interest rates rise by one percentage point above projected levels for the 1996-2002 period, interest payments would be \$214 billion higher.⁶

⁶CBO, *The Economic and Budget Outlook: Fiscal Years 1997-2006*, May 1996.

Q. What are the key issues in evaluating the overall level of debt for the future?

A. In assessing debt levels, it is important to focus on the right indicator of the burden of the debt. As we have noted earlier, comparing the debt to GDP provides a better indicator of the debt burden than the debt's nominal dollar value, because it captures the capacity of the economy to sustain the debt. Of the primary factors influencing the change in the debt-GDP measure (the budget deficit, dollar value of the debt, the size of the economy, and interest rates), the federal government can most directly affect the budget deficit. Therefore, the best ways for the federal government to reduce the debt as a percentage of GDP range from restraining the growth of the deficit to actually running budget surpluses. Over the past few years, progress on reducing the deficit has stabilized the debt-GDP measure at about 50 percent. However, this ratio is high in historical terms and further deficit reduction actions will be needed just to prevent it from rising further in the future.

Actually paying down the federal debt to reduce its nominal level would require going beyond a balanced budget to a surplus. Such a fiscal policy path would entail spending cuts and/or tax increases beyond those needed to balance the budget. Deciding on the most appropriate level of debt in relation to these additional fiscal sacrifices is a judgment that only elected officials can make. The decision involves a number of considerations, such as the uses of federal borrowing (investment vs. consumption), the desired mix of private vs. public investment spending, and future needs (for example, paying for the retirement of the baby boom generation).

Glossary

Bills	(See U.S. Treasury Securities.)
Bonds	(See U.S. Treasury Securities.)
Congressional Budget and Impoundment Control Act of 1974	The law that established the congressional budget process and created the House and Senate Budget Committees and the CBO. The act requires the Congress to pass an annual Budget Resolution which includes totals for spending, revenues, deficits and debt.
Congressional Budget Office (CBO)	A legislative agency that assists the Congress in the preparation of the budget and analyzes budget-related issues. CBO is responsible for estimating the budgetary effects of all spending and revenue bills.
Debt	There are three basic measures of federal debt: (1) debt held by the public, (2) debt held by government accounts, and (3) gross debt.
Debt Held by the Public	Federal debt held by all investors outside of the federal government, including individuals, corporations, state or local governments, the Federal Reserve banking system, and foreign governments. When debt held by the Federal Reserve is excluded, the remaining amount is referred to as privately-held debt.
Debt Held by Government Accounts	Federal debt held by the federal government itself. Most of this debt is held by trust funds, such as Social Security.
Gross Debt	The total amount of outstanding federal debt, whether issued by the Treasury or other agencies and held by the public or federal government accounts.

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Debt Limit	A legal ceiling on the amount of gross federal debt, which must be raised periodically to accommodate additional federal borrowing. A small amount of gross debt is excluded from this ceiling. These excluded amounts are issued by either the Federal Financing Bank, an arm of the Treasury Department, or agencies other than the Treasury Department, such as the Tennessee Valley Authority.
Deficit	The amount by which the government's spending exceeds its revenues for a given period, usually a fiscal year.
Unified Deficit	The most commonly used measure of the federal deficit. It includes all federal spending and all federal revenues.
Federal Funds Deficit	A measure of the deficit that excludes the spending and revenue totals of federal government trust funds such as Social Security.
Federal Debt	(See Debt.)
Federal Funds Deficit	(See Deficit.)
Federal Reserve System	The central bank of the United States. It is responsible for the conduct of monetary policy . (See monetary policy.)
Fiscal Year	Any yearly accounting period, regardless of its relationship to a calendar year. The fiscal year for the federal government begins on October 1 of each year and ends on September 30 of the following year; it is named by the calendar year in which it ends.

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Gross Debt	(See Debt.)
Gross Domestic Product (GDP)	The value of all final goods and services produced in a country during a given period. GDP serves as the principal measure of the size of a country's economy.
Inflation	A sustained rise in the general price level.
Interest	The amount that a borrower pays a lender for the use of funds. There are two main types of federal interest spending: (1) gross interest and (2) net interest.
Gross Interest	The fiscal year total of net interest plus interest credited to federal government trust funds and other government accounts that hold federal debt.
Net Interest	Primarily the amount of interest that the federal government pays on debt held by the public. In addition to interest on debt held by the public, the government also earns some interest from various sources and pays interest for purposes other than borrowing from the public. These amounts are only a small portion of net interest and, taken together, slightly reduce its total.
Interest Rate	The cost of borrowing or the price paid for the rental of funds (usually expressed as a percentage of the amount borrowed per year).
Monetary Policy	The use of reserve requirements, discount rates, and purchases and sales of U.S. Treasury securities (open market operations) to affect the rate of growth of the nation's money supply.

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National Saving	Total saving by all sectors of the economy: personal saving, business saving, and government saving (budget surplus or deficit—the latter indicates dissaving). National saving represents all income not consumed during a given period.
Notes	(See U.S. Treasury Securities.)
Primary Surplus	The “primary budget” refers to the balance of total revenue and all program (noninterest) spending and measures the extent to which the government can afford its current programs. When revenues exceed program spending, the government has reached primary surplus.
Trust Fund Accounts	Federal budget accounts that are designated as “trust funds” by law. These accounts usually have a designated, or “earmarked,” source of revenue. These revenues are authorized to be spent for the programs and activities supported by the trust fund.
Unified Deficit	(See Deficit.)
U.S. Treasury Securities	The Treasury Department issues two major types of debt securities to the public: marketable and nonmarketable. Marketable securities, which are composed of bills, notes, and bonds (see below), can be resold by whomever owns them while nonmarketable securities, such as savings bonds and state and local government securities, cannot be resold. Marketable securities are auctioned at regular intervals during the year and account for about 90 percent of outstanding federal debt securities held by the public. In addition to the securities issued to the public, the Treasury Department also issues

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	special, nonmarketable securities to federal government accounts, primarily trust funds.
Bills, Notes, and Bonds	Bills have an original maturity of 1 year or less, and are offered on a discount basis—that is, the price the purchaser pays for the security is less than the face value received at maturity. The original maturity for notes is from 2 to 10 years, and for bonds it is more than 10 years. Notes and bonds are coupon securities that pay semiannual interest payments and repay the principal at maturity.

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