



UNITED STATES
GOVERNMENT ACCOUNTABILITY OFFICE

FEDERAL DEBT

ANSWERS TO
FREQUENTLY
ASKED QUESTIONS

AN UPDATE

Contents

Preface	1
Section 1: What Is the Federal Debt?	How large is the federal debt?	5
	What is debt held by the public?	6
	What is debt held by government accounts?	8
	What is the difference between the two types of federal debt?	10
	What is the debt limit?	12
Section 2: What Is the Relationship between the Budget and Federal Debt?	What does it mean to have a budget surplus or deficit and how are they related to federal debt?	15
	What are the historical trends regarding deficits and debt held by the public as a share of the economy?	16
	What is the role of trust funds in measuring budget deficits or surpluses?	21
	What are the different measures of federal interest?	23
	How does interest spending affect the federal budget and the level of federal debt?	25
	What are the uncertainties associated with debt and interest projections?	29

Contents

Section 3: What Is the Relationship between the Economy and Federal Debt?

What short-term and long-term economic developments may influence the level of federal borrowing?	33
What are the pros and cons of federal borrowing?	37
What has been the interaction between federal borrowing and saving?	43

Section 4: Federal Debt Management and Ownership

How does the government borrow, and what debt instruments are used?	47
What is the Treasury's goal for debt management?	50
What challenges does the Treasury face in achieving its debt management goal?	51
How do budget conditions affect debt management?	53
Who holds Treasury securities?	54

Section 5: Current and Future Policy Issues regarding Federal Debt

What are key considerations for the future?	59
How will the current fiscal policy path affect federal borrowing and budgetary flexibility?	60
Does the debt limit provide a way to control the amount we borrow? What are some alternatives to the debt limit?	62
Debt is one liability of the federal government. What are other potential ways to look at exposures or implicit commitments of the government?	65

Contents

Appendix I: Selected Bibliography	69
Appendix II: Glossary	73
Appendix III: Scope and Methodology	81
Tables	
Table 1: Schedule of Treasury Securities Auctions as of July 2004.	48
Table 2: Selected Fiscal Exposures: Sources and Examples (End of Fiscal Year 2003)	66
Figures	
Figure 1: Gross Federal Debt and Its Components (End of Fiscal Year 2003).	6
Figure 2: Estimated Ownership of Federal Debt Held by the Public (End of Fiscal Year 2003).	8
Figure 3: Distribution of Federal Debt Held by Government Accounts (End of Fiscal Year 2003)	10
Figure 4: Surplus or Deficit as a Share of GDP (1797-2003).	17
Figure 5: Federal Debt Held by the Public as a Share of GDP (1797-2003)	18

Contents

Figure 6: Federal Debt as a Share of GDP (1960-2003)	19
Figure 7: Net General Government Debt of Selected Countries (2002)	20
Figure 8: Unified Budget Deficit or Surplus and Its Components (1968-2003)	22
Figure 9: Net Interest as a Share of Total Federal Outlays (1940-2003)	26
Figure 10: Federal Outlays by Selected Budget Functions (Fiscal Year 2003)	27
Figure 11: Selected Average Interest Rates on the Federal Debt (1962-2003)	28
Figure 12: Changes in Aged Population as a Share of Total U.S. Population (1950-2080)	34
Figure 13: Social Security Workers per Beneficiary (1960-2080)	35
Figure 14: Labor Force Growth (1970-2080)	36
Figure 15: Debt Held by the Public as a Share of GDP under Alternative Fiscal Policy Simulations (2000-2075)	40
Figure 16: Increase in GNP Per Capita Associated with Permanent Deficit Reduction of 1 Percent of GDP (2003-2054)	42
Figure 17: Composition of Net National Saving (Fiscal Years 1960-2003)	44
Figure 18: Average Gross National Saving Rates of Selected Countries (1984-2002)	45
Figure 19: Treasury Bills, Notes, and Bonds Outstanding (1993-2003)	49
Figure 20: Estimated Ownership of Debt Held by the Public (End of Fiscal Years 1993 and 2003)	55
Figure 21: Purchasing Treasury Securities.	56
Figure 22: Composition of Federal Spending as a Share of GDP Assuming Discretionary Spending Grows with GDP after 2004 and That Expiring Tax Provisions Are Extended	61
Figure 23: Federal Debt Compared to Statutory Limit (End of Fiscal Years 1985-2005)	63

PREFACE

Although the federal government has carried debt throughout virtually all of U.S. history, in the past publicly held debt rose substantially only as the result of wars and recessions. However, annual budget deficits from the 1970s through the mid-1990s sharply increased the total amount of debt owed to the public during a period marked by the absence of a major war or depression. The Congress and the President responded to the high deficits and rising debt over the 1990s by enacting several deficit reduction initiatives. These actions, along with economic growth, helped shrink annual deficits and led to 4 consecutive years of surpluses in fiscal years 1998 through 2001, which in turn reduced debt held by the public. However, tax cuts, increased spending, and weak economic growth returned the unified budget of the federal government to deficit in fiscal years 2002 and 2003. This budgetary climate comes at a time when the budget controls enacted in the 1990s have expired, and there is no agreement yet on what should take their place.

At the end of fiscal year 2003, debt held by the public stood at \$3.9 trillion or 36 percent of the annual size of the U.S. economy. Debt held by government accounts was \$2.9 trillion. Debt held by the public plus debt held by government accounts represent total debt, or gross federal debt. The Congressional Budget Office's (CBO) current baseline projections (assuming current laws and policies remain the same) show deficits and rising debt for most of the next decade. As GAO and others have noted,¹ over the longer term, the retirement of the baby boom generation and rising health care costs will place additional pressures on the federal budget. Long-term simulations by GAO, CBO, and the Office of Management and Budget show that absent policy changes, debt held by the public would rise to levels ultimately unsustainable by the U.S. economy.

¹ See U.S. Government Accountability Office, *Our Nation's Fiscal Outlook: The Federal Government's Long-Term Budget Imbalance*, <http://www.gao.gov/special.pubs/longterm>. Also, see U.S. Congressional Budget Office, *The Long-Term Budget Outlook* (Washington, D.C.: December 2003), and U.S. Office of Management and Budget, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2005* (Washington, D.C.: February 2004).

Members of the Congress, other public officials, and many citizens have recognized that rising federal debt has serious consequences for the nation. Large deficits and rising federal debt constrain future economic growth and living standards by reducing the amount of saving in the United States available for private investment.² Federal borrowing to finance deficits may also put upward pressure on interest rates, which increases household borrowing costs for such things as homes, cars, and college loans.

In addition to these economic consequences, the budgetary effects of deficits and growing debt reduce the federal government's flexibility in funding various programs and activities. Spending on interest cannot be directly controlled—interest costs are determined by the amount of past borrowing and interest rates. In fiscal year 2003, net interest spending was the sixth largest item in the federal budget—about 7 percent of total federal spending was primarily used to pay interest on debt held by the public rather than to finance other public priorities. With debt held by the public increasing and interest rates expected to rise, interest spending is bound to increase in the near future. Spending for interest payments accompanied with the growth in mandatory programs over the longer term will decrease budgetary flexibility in financing discretionary programs.

This report updates information in our 1999 publication, *Federal Debt: Answers to Frequently Asked Questions—An Update* (GAO/OCG-99-27, May 28, 1999).³ At the time of our last publication, the federal government was running budget surpluses, and debt held by the public was projected to drop to historically low levels. This report provides updated information to reflect the changes in the nation's fiscal condition and outlook. Our update addresses frequently asked questions about the federal debt, deficits, and surpluses. In

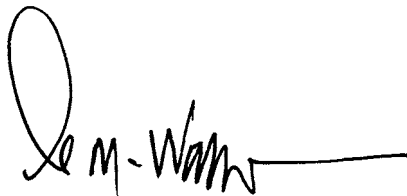
² For additional information, see U.S. General Accounting Office, *National Saving: Answers to Key Questions*, GAO-01-591SP (Washington, D.C.: June 2001).

³ For our previous work, see U.S. General Accounting Office, *Federal Debt: Answers to Frequently Asked Questions*, GAO/AIMD-97-12 (Washington, D.C.: Nov. 27, 1996).

this update, we present current information on how federal debt is defined and measured, the relationship between federal debt and the budget and the economy, federal debt management and ownership, and future policy issues regarding federal debt. As in our earlier reports, we attempt to provide the information in a clear, concise, and easily understandable manner for a nontechnical audience.

In updating this report, we draw on our previously issued work on budget issues, federal debt, national saving, and long-term fiscal challenges as well as our review of relevant literature. See appendix I for a short bibliography of relevant government publications. For easy reference, key terms are defined in the glossary located in appendix II—these glossary terms appear in **bold** type the first time they are used in the text. For more detailed information on our scope and methodology, see appendix III.

This report was prepared under the direction of Paul L. Posner, Managing Director, Federal Budget Analysis, Strategic Issues, and Susan J. Irving, Director, Federal Budget Analysis, Strategic Issues, who may be reached at (202) 512-9142 or irvings@gao.gov if there are any questions. Ali Bonebrake, Rick Krashevski, Jose Oyola, MaryLynn Sergent, and Keith Slade made key contributions to this publication. Copies of this report are available upon request. In addition, this document will be available at no charge on the GAO Web site at <http://www.gao.gov>.

A handwritten signature in black ink, appearing to read "D. M. Walker", with a long horizontal line extending to the right.

David M. Walker
Comptroller General
of the United States



SECTION 1: WHAT IS THE FEDERAL DEBT?



How large is the federal debt?

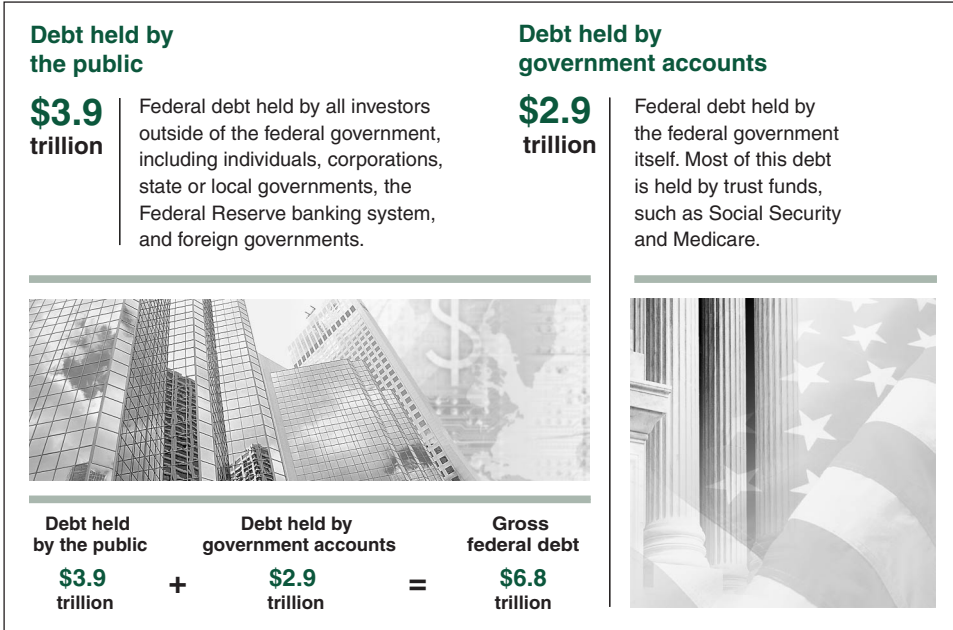
A. **Gross debt**—also known as total debt—is the measure that captures all of the federal government’s outstanding debt, measured by outstanding bills, notes, bonds, and other debt instruments of the U.S. government. Gross debt—which totaled about \$6.8 trillion at the end of **fiscal year 2003**—consists of **debt held by the public** plus **debt held by government accounts**,¹ such as the Social Security and Medicare trust funds.² (See fig. 1.) In this update, our discussions focus primarily on debt held by the public.

¹ Debt held by government accounts is also known as intragovernmental debt holdings.

² Gross federal debt differs from U.S. gross external debt, which is the debt owed by U.S. residents to nonresidents. See the glossary for additional definitions.

Section 1: What Is the Federal Debt?

Figure 1: Gross Federal Debt and Its Components (End of Fiscal Year 2003)



Source: GAO.

Note: Data from U.S. General Accounting Office, *Financial Audit: Bureau of the Public Debt's Fiscal Years 2003 and 2002 Schedules of Federal Debt*, [GAO-04-177](#) (Washington, D.C.: Nov. 7, 2003), and U.S. Department of the Treasury *2003 Financial Report of the United States Government* (Washington, D.C.: Feb. 27, 2004).



What is debt held by the public?

A. The federal debt held by the public is the value of all federal securities sold to the public that are still outstanding—about \$3.9 trillion at the end of fiscal year 2003. The level of debt held by the public is a useful measure because it reflects how much of the nation's wealth is absorbed by the federal government to finance its obligations. Thus, debt held by the public best represents the cumulative effect of past federal

Section 1: What Is the Federal Debt?

borrowing on today's economy and on the current federal budget.

The amount of any borrower's debt by itself is not a good indicator of the burden imposed by that debt. A borrower's income and wealth are important in assessing the burden of debt. Therefore, to get a sense of the burden represented by the federal debt, that debt is often measured in relation to the nation's income. **Gross domestic product (GDP)** is a commonly used measure of domestic national income. GDP is the value of all goods and services produced within the United States in a given year and is conceptually equivalent to incomes earned in production. It is a rough indicator of the economic earnings base from which the government draws its revenues. Thus, the ratio of debt held by the public as a share of GDP is a good measure of the burden on the current economy. In these terms, the federal debt burden grew in all but 2 years from 1980 through 1993 and then began a steady decline through 2001. Since then the federal debt burden has increased to about 36 percent of GDP at the end of fiscal year 2003. (For additional information on the debt held by the public as a share of GDP, see fig. 5 in sec. 2.) Current growth in the debt-to-GDP measure does not necessarily create problems in the short term, but continued growth would further reduce future budgetary flexibility and ultimately lead to an unsustainable fiscal path.³

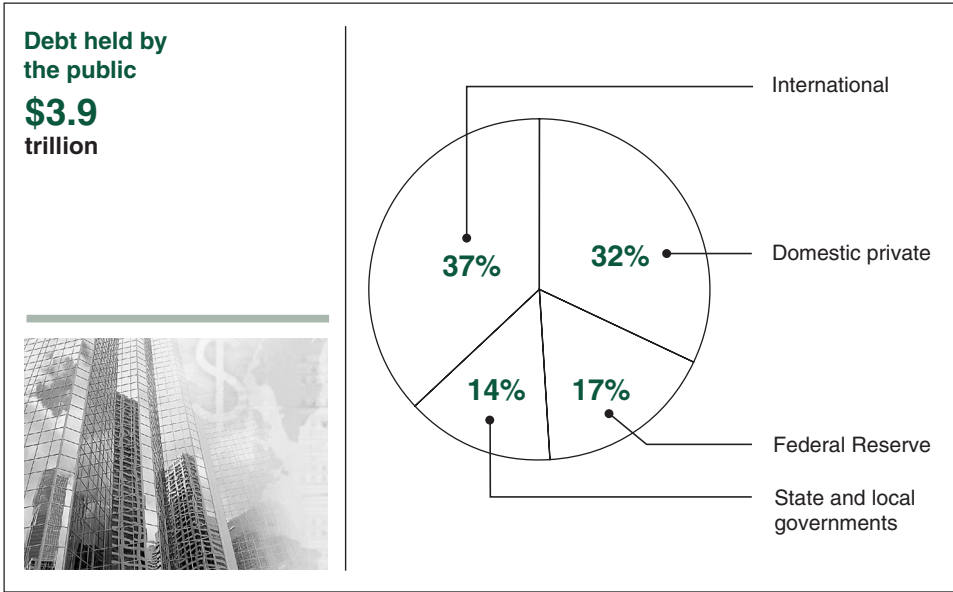
Debt held by the public is owed to a wide variety of investors, including domestic private investors such as individuals, businesses, financial institutions, and pension funds. Other investors include the **Federal Reserve System**, state and local governments, and international investors. The Treasury estimates that nearly two-thirds of the debt is owed to U.S. residents and institutions. International investors, including central banks as well as private investors, hold slightly greater than one-third of this debt.⁴ (See fig. 2.)

³ Section 3 discusses the relationship between the debt and the economy, and section 5 discusses the long-term outlook for federal borrowing and budgetary flexibility.

⁴ Section 4 contains additional information on the estimated ownership of federal debt held by the public.

Section 1: What Is the Federal Debt?

Figure 2: Estimated Ownership of Federal Debt Held by the Public (End of Fiscal Year 2003)



Sources: GAO and the Department of the Treasury.

Note: Estimated ownership data are from the U.S. Department of the Treasury, *Treasury Bulletin* (Washington, D.C.: December 2003 and March 2004).



What is debt held by government accounts?

A. Debt held by government accounts (intragovernmental debt)—about \$2.9 trillion at the end of fiscal year 2003—represents balances in the federal government’s accounts, primarily **trust funds**, that accumulate surpluses.⁵ The

⁵ Debt held by government accounts primarily reflects debt held by federal trust funds, including Social Security. Other federal programs, such as the Bank Insurance Fund, also hold government securities, but these amounts represent only a small portion of the total debt held by government accounts.

Section 1: What Is the Federal Debt?

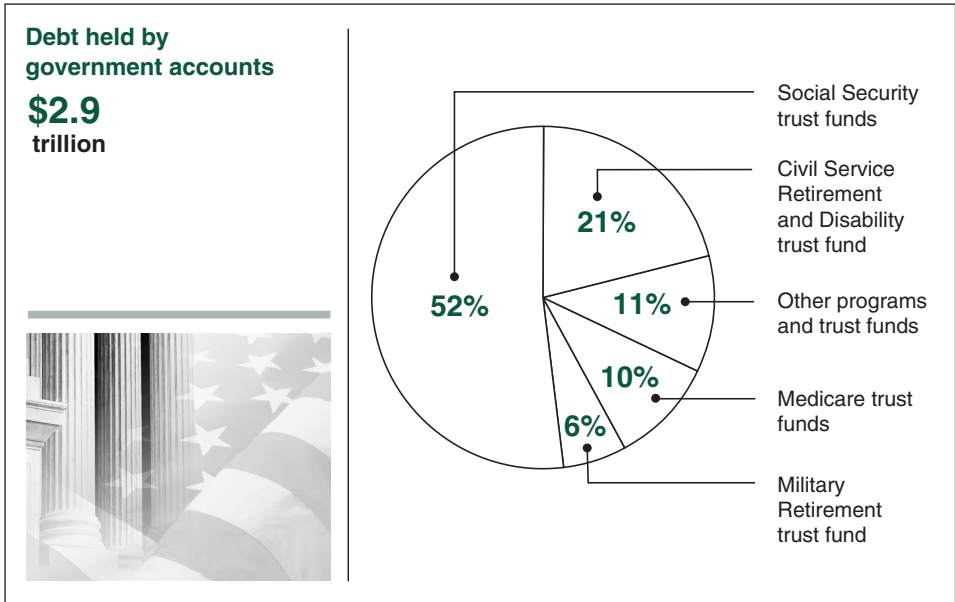
balances are invested in special, nonmarketable **U.S. Treasury securities** that, like debt held by the public, are guaranteed for principal and interest by the full faith and credit of the U.S. government. Debt held by government accounts constitutes future obligations of the Treasury since the Treasury must pay back this debt when an account needs to redeem its securities to pay expenditures exceeding its annual receipts. From the standpoint of the government as a whole, debt held by government accounts represents amounts loaned from one part of the government to another—in other words, debt the government owes itself.

The Social Security, Medicare, Military Retirement, and Civil Service Retirement and Disability trust funds account for about 89 percent of the total debt held by government accounts at the end of fiscal year 2003. (See fig. 3.) A trust fund's **total surplus** (including intragovernmental transfers⁶) adds to its balance and increases debt held by government accounts. However, only **cash surpluses** (where receipts from the public exceed spending)—as in the case of the Social Security trust funds—reduce the government's need to borrow from the public.

⁶ Intragovernmental transfers include interest received on a trust fund's assets, the employer portion of federal employee pension costs, and other appropriated amounts.

Section 1: What Is the Federal Debt?

Figure 3: Distribution of Federal Debt Held by Government Accounts (End of Fiscal Year 2003)



Source: GAO.

Note: Data from U.S. General Accounting Office, *Financial Audit: Bureau of the Public Debt's Fiscal Years 2003 and 2002 Schedules of Federal Debt*, [GAO-04-177](#) (Washington, D.C.: Nov. 7, 2003).



What is the difference between the two types of federal debt?

A. Debt held by the public approximates current federal demand on credit markets. It represents a burden on today's economy, and the interest paid on this debt represents a burden on current taxpayers. Federal borrowing from the public absorbs resources available for private investment and may put upward pressure on **interest rates**. Further, debt held by the public is the accumulation of what the federal

Section 1: What Is the Federal Debt?

government borrowed in the past and is reported as a **liability** on the balance sheet of the government's consolidated financial statements.

In contrast, debt held by government accounts (intragovernmental debt) and the interest on it represent a claim on future resources. This debt performs largely an internal accounting function. Special federal securities credited to government accounts (primarily trust funds) represent the cumulative surpluses of these accounts that have been lent to the general fund. These transactions net out on the government's consolidated financial statements. Debt issued to government accounts does not affect today's economy and does not currently compete with the private sector for available funds in the credit market.

However, debt held by government accounts reflects a future burden on taxpayers and the economy. The special federal securities held in the accounts represent legal obligations of the Treasury and are guaranteed for principal and interest by the full faith and credit of the U.S. government. When a government account needs to pay expenditures exceeding its receipts from the public, the Treasury must provide cash to redeem debt held by the government account. For example, according to 2004 Trustees projections, the Social Security trust funds will have insufficient tax income to pay scheduled benefits by 2018. The trust funds will begin drawing on the Treasury to cover the cash deficit, first relying on interest income and eventually drawing down accumulated trust fund assets. The government must obtain cash to finance this spending in excess of earmarked tax receipts either through increased taxes, spending cuts, increased borrowing from the public, retiring less debt (if the unified budget is in surplus), or some combination thereof.

Because debt held by the trust funds is not equal to the future benefit costs implied by the current design of the programs, it cannot be seen as a measure of the government's total future commitment to programs financed by trust funds. The projected accumulated balances held by trust funds can provide one signal about the underlying fiscal imbalances in these programs. Trust fund balances do not provide

Section 1: What Is the Federal Debt?

meaningful information about program sustainability. The critical question is whether the government as a whole can afford the benefits in the future and at what cost in terms of other claims on scarce resources. (See sec. 5 for more information on the long-term outlook and fiscal exposures.)



What is the debt limit?

A. Gross debt of the federal government is subject to a statutory ceiling—known as the **debt limit**.⁷ Prior to 1917, the Congress approved each issuance of debt. In 1917, to facilitate planning in World War I, the law established a dollar ceiling for federal borrowing, which has been raised periodically over the years. The current limit—\$7,384 billion—was enacted in May 2003. The gross debt, excluding some minor adjustments,⁸ is the measure that is subject to the federal debt limit. At the end of fiscal year 2003, the amount of **debt subject to limit** was about \$6,737.6 billion. In January 2004, the **Congressional Budget Office** (CBO) estimated that under current policies the current limit would be reached during fiscal year 2004.⁹ In July 2004, the Treasury estimated the debt limit would be reached in late September or early October 2004. The Office of Management and Budget’s July 2004 budget projections show

⁷ For previous GAO work on the debt limit, see U.S. General Accounting Office, *Debt Ceiling: Analysis of Actions Taken During the 2003 Debt Issuance Suspension Period*, [GAO-04-526](#) (Washington, D.C.: May 20, 2004); *Debt Ceiling: Analysis of the Actions During the 2002 Debt Issuance Suspension Periods*, [GAO-03-134](#) (Washington, D.C.: Dec. 13, 2002); *Debt Ceiling: Analysis of Actions During the 1995-1996 Crisis*, [GAO/AIMD-96-130](#) (Washington, D.C.: Aug. 30, 1996); and *Information on Debt Ceiling Limitations and Increases*, [GAO/AIMD-96-49R](#) (Washington, D.C.: Feb. 23, 1996). See also U.S. Office of Management and Budget, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2005* (Washington, D.C.: February 2004).

⁸ A very small amount of the gross debt—less than 1 percent at the end of fiscal year 2003—is excluded from the debt limit. The amount excluded is mainly issued by agencies other than the Department of the Treasury, such as the Tennessee Valley Authority.

⁹ U.S. Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2005 to 2014* (Washington, D.C.: January 2004).

Section 1: What Is the Federal Debt?

debt subject to the limit will be only \$9 billion below the statutory limit as of September 30, 2004.¹⁰ See section 5 for more on raising the debt limit to accommodate further borrowing.

¹⁰ U.S. Office of Management and Budget, *Fiscal Year 2005 Mid-Session Review* (Washington, D.C.: July 2004).

SECTION 2: WHAT IS THE RELATIONSHIP BETWEEN THE BUDGET AND FEDERAL DEBT?



What does it mean to have a budget surplus or deficit and how are they related to federal debt?

A. The budget **surplus** or **deficit** (also called the “**unified**” or “**total**” budget surplus or deficit—including the trust funds) is the difference between total federal spending and revenue in a given year. To finance a budget deficit,¹ the government borrows from the public. Alternatively, when a budget surplus occurs, the government accumulates excess funds that are used to reduce debt held by the public. In other words, deficits or surpluses generally approximate the annual net change in the amount of debt held by the public, while the debt held by the public generally represents the total of all unified deficits minus all unified surpluses accumulated over time.

When the Congress makes budgetary decisions, it is also indirectly making decisions about the nominal level of debt held by the public. If the budget is in balance, the amount of debt held by the public would remain essentially unchanged. The Treasury incurs the **interest** costs on debt held by the public, but government spending does not reflect cash used to retire the principal of outstanding debt when it matures. The principal that comes due is paid off with cash raised by issuing new securities, and the debt is rolled over. If the budget is in deficit, the government must both issue new debt to the public and roll over maturing debt. A unified budget surplus allows the Treasury to reduce the nominal level of debt held by the

¹ The surplus or deficit is approximately equal to the yearly change in the debt held by the public. However, several minor types of transactions referred to as “other means of financing” account for differences between the two amounts. These “other means” include changes in the Treasury’s operating cash balances, net purchases of nonfederal securities by the National Railroad Retirement Investment Trust, and net financing disbursements by the government’s loan guarantee and direct loan financing accounts.

Section 2: What Is the Relationship between the Budget and Federal Debt?

public by rolling over less debt when it matures. (See sec. 4 for more information about the Treasury's debt management.)

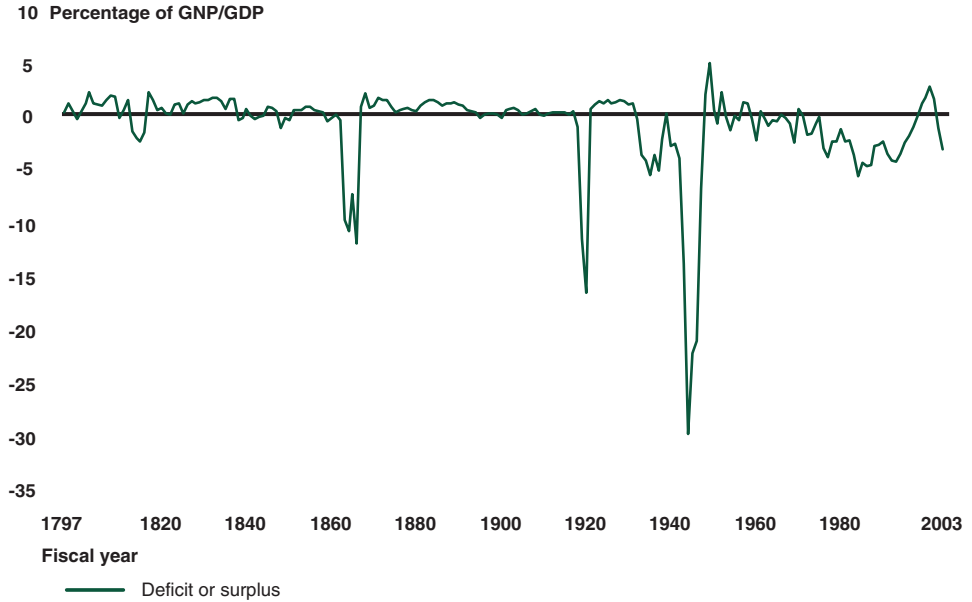


What are the historical trends regarding deficits and debt held by the public as a share of the economy?

A. Figures 4 and 5 show the budget surplus or deficit and the debt held by the public as shares of GDP. Short deficit periods have caused increases in debt that lingered long after annual deficit levels declined. For example, the federal budget deficit increased sharply from about 4 percent to about 30 percent of the economy from 1941 through 1943, and correspondingly, federal debt held by the public increased sharply until it reached its zenith as a percentage of GDP in 1946. It then took 17 years, from 1946 until 1963, for the debt-to-GDP ratio to return to its 1941 level.

Section 2: What Is the Relationship between the Budget and Federal Debt?

Figure 4: Surplus or Deficit as a Share of GDP (1797-2003)



Sources: Department of Commerce, Office of Management and Budget, and CBO.

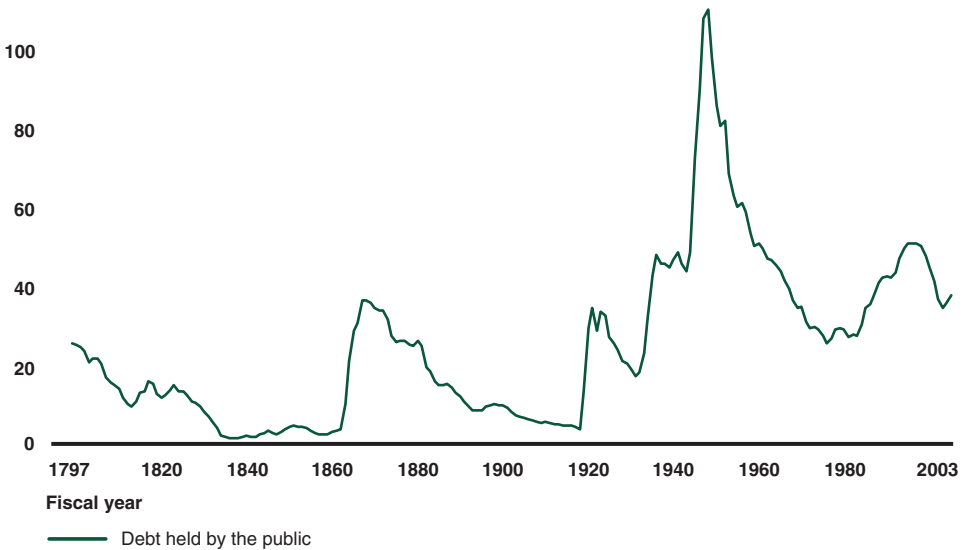
Note: Data until 1929 are shown as a percentage of gross national product (GNP); data from 1930 to present are shown as a percentage of GDP.

As figure 5 shows, prior to the 1980s, the debt-to-GDP measure rose substantially only as the result of wars and recessions. Borrowing during these times helped protect the nation's security interests and stabilize the economy. From the early days of the republic until the 1980s, debt held by the public exceeded 30 percent of GDP during periods surrounding the Civil War, World War I, the Great Depression, and World War II.

Section 2: What Is the Relationship between the Budget and Federal Debt?

Figure 5: Federal Debt Held by the Public as a Share of GDP (1797-2003)

120 Percentage of GNP/GDP



Source: GAO analysis of Department of Commerce, Office of Management and Budget, and CBO data.

Note: Data until 1929 are shown as a percentage of GNP; data from 1930 to present are shown as a percentage of GDP.

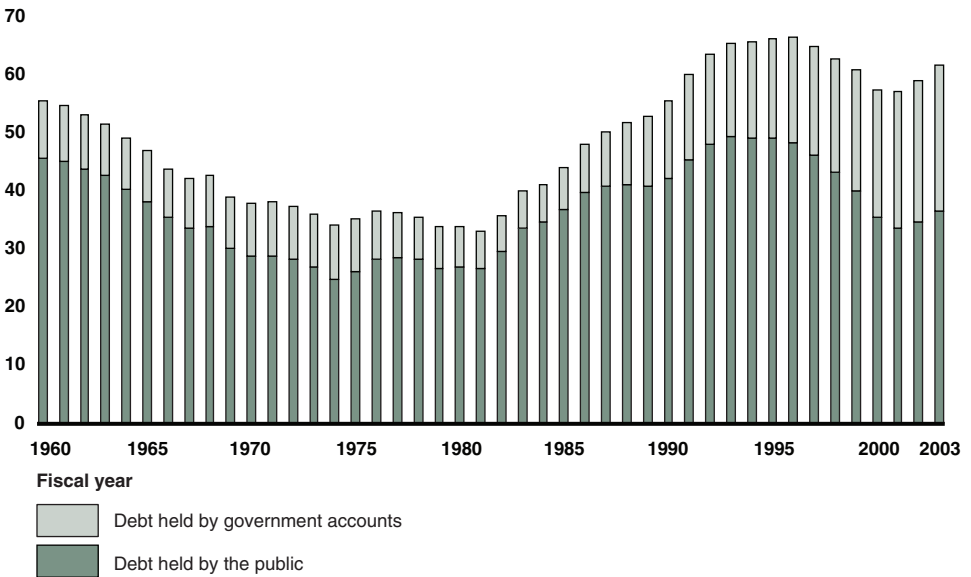
Recent increases in the debt held by the public broke with historical patterns by climbing significantly during a period marked by the absence of either a major war or depression. Beginning in the late 1970s, rising federal budget deficits fueled a corresponding increase in debt held by the public, which essentially doubled as a share of GDP over a 15-year period through the mid-1990s and reached about 50 percent of GDP in 1993. The budget controls instituted in the 1990s successfully restrained fiscal action by the Congress and the President and—together with economic growth—contributed to the budget surpluses that materialized by the end of the decade. These surpluses led to a decline in the debt held by the public, and from fiscal years 1998 through 2001, the debt-to-GDP measure declined from about 43 percent to about 33 percent.

Section 2: What Is the Relationship between the Budget and Federal Debt?

Tax cuts, increased spending (including spending for increased homeland security and defense commitments), weak economic growth, and lower-than-expected capital gains receipts have led to a return to annual deficits and a rise in the debt-to-GDP measure. In addition, the budget controls that once helped to lower deficits have expired, and no agreement has yet been reached on a successor regime. The sharp reversal in the government's fiscal position is reflected in the debt numbers. From the end of fiscal years 2001 through 2003, debt held by the public rose by about \$594 billion from \$3.3 trillion to \$3.9 trillion. As a share of GDP, debt held by the public at the end of fiscal year 2003 was about 36 percent of GDP, still lower than about 49 percent of GDP reached in the mid-1990s. Figure 6 shows debt held by the public and debt held by government accounts as a share of GDP from 1960 through 2003.

Figure 6: Federal Debt as a Share of GDP (1960-2003)

80 Percentage of debt as a share of GDP



Source: Office of Management and Budget.

Section 2: What Is the Relationship between the Budget and Federal Debt?

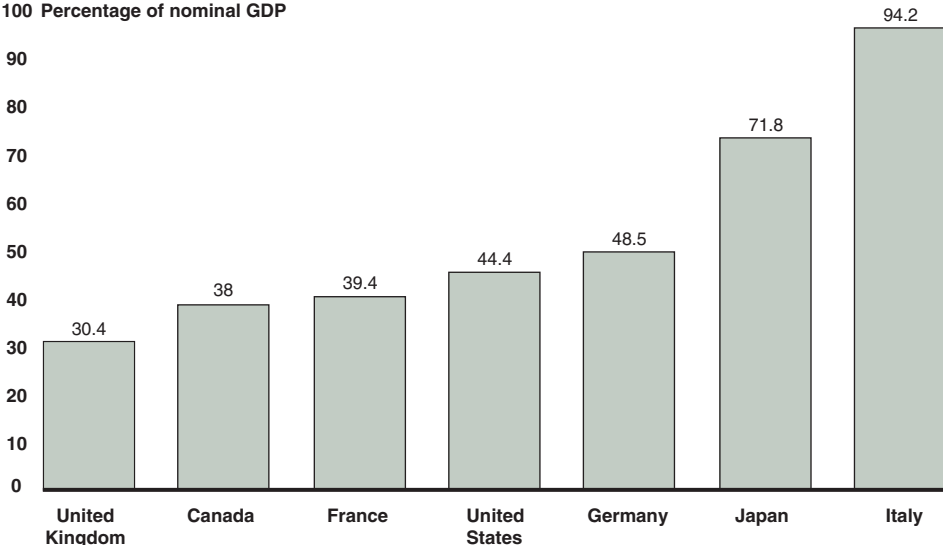
Note: Data from U.S. Office of Management and Budget, *Budget of the United States Government for Fiscal Year 2005 – Historical Tables* (Washington, D.C.: February 2004).

CBO's January 2004 **baseline** projects that debt held by the public will grow to about 40 percent of GDP in coming years. Debt held by government accounts rises steadily during this time frame under CBO's projections. (See sec. 5 for further discussion about budget projections and the long-term fiscal outlook.)

In 2002 the United States was in the middle of a group of seven major industrialized nations when comparing net general government debt—which includes the consolidated debt of all levels of government (national, state or regional, and local)—as a share of the economy. (See fig. 7.)

Figure 7: Net General Government Debt of Selected Countries (2002)

100 Percentage of nominal GDP



Source: Organisation for Economic Co-operation and Development.

Note: Data from Organisation for Economic Co-operation and Development, *OECD Economic Outlook No. 74*, vol. 2 (Paris: December 2003).



What is the role of trust funds in measuring budget deficits or surpluses?

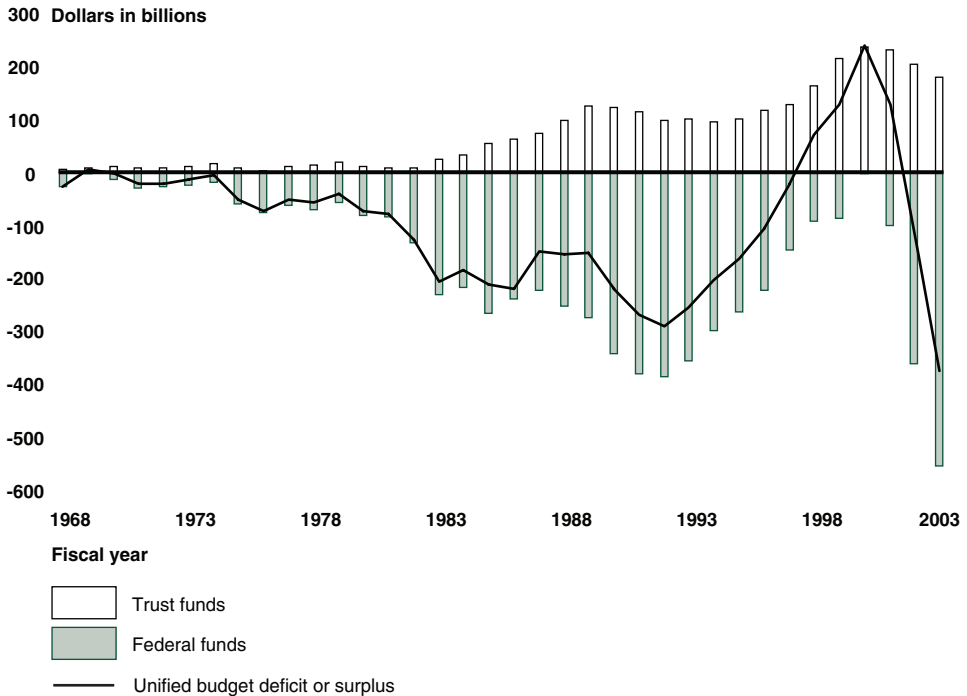
A. To understand the role of trust funds in measuring budget deficits and surpluses, it is necessary to understand the two fund groups in the unified budget: (1) trust funds and (2) **federal funds**. Trust funds represent an accounting mechanism used to link earmarked receipts—receipts dedicated for a specific purpose—with the expenditures of those receipts.² All other budget accounts not explicitly designated as trust funds by law are known as federal funds.³ The sum of trust fund and federal fund surpluses and deficits comprise the annual unified budget total. Currently, trust funds in aggregate are running total surpluses (including interest and other intragovernmental transfers), and the remainder of the budget—the so-called federal funds portion—has a deficit. At the end of fiscal year 2003, the unified budget had a deficit of about \$375 billion—the net result of a trust funds total surplus of about \$178 billion and a federal funds deficit of about \$554 billion. (See fig. 8.)

² We identified 130 trust funds in fiscal year 1999; see [GAO-01-199SP](#).

³ Within federal funds there are four types of fund accounts: (1) general funds, (2) special funds, (3) public enterprise funds, and (4) intragovernmental funds.

Section 2: What Is the Relationship between the Budget and Federal Debt?

Figure 8: Unified Budget Deficit or Surplus and Its Components (1968-2003)



Source: Office of Management and Budget.

Notes: Data from U.S. Office of Management and Budget, *Budget of the United States Government for Fiscal Year 2005 – Historical Tables* (Washington, D.C.: February 2004). Trust fund total surpluses include interest and other intragovernmental transfers.

Trust fund total surpluses add to debt held by government accounts, but only cash surpluses reduce the need for the federal government to borrow from the public. The Social Security trust funds had the largest cash surpluses in fiscal year 2003. Although the civilian and military retirement programs had total surpluses—i.e., including federal employer contributions and interest—these trust funds ran cash deficits. The Civil Service Retirement and Disability trust fund receives contributions from federal employees, but the Military Retirement trust fund has no cash receipts; thus the federal

Section 2: What Is the Relationship between the Budget and Federal Debt?

government spends more each year for these programs than it receives in earmarked receipts from the public. Excluding about \$344 billion in intragovernmental transfers, trust funds in the aggregate had a cash deficit of about \$165 billion in fiscal year 2003.

When the funds needed to pay benefits and expenses of a trust fund program exceed dedicated tax receipts, it redeems some of its Treasury securities as necessary. The Treasury would need to obtain cash to redeem these securities. Cash can be obtained in the following ways: increased taxes, lower spending, increased borrowing from the public, retiring less debt (if the unified budget is in surplus), or some combination thereof.



What are the different measures of federal interest?

A. The federal government—like other borrowers—pays interest on its debt. The way interest is reported in the federal budget varies depending on the type of federal debt. The budget records outlays for the interest on debt held by the public on an accrual basis; in other words, interest is recorded as an outlay when the Treasury incurs the expense, not when the Treasury makes the payment. Interest on inflation-indexed securities and accrual savings bonds (such as Series EE savings bonds) are treated somewhat differently than interest on other publicly held Treasury securities.⁴ For debt held by government accounts, the budget normally records outlays for

⁴ Inflation-indexed securities feature monthly adjustments to principal for inflation and semiannual payments of interest on the inflation-adjusted principal. Accrual savings bonds also feature monthly adjustments to principal. The monthly adjustments to principal are recorded as an increase in debt outstanding, to be paid at redemption, and an outlay of interest.

Section 2: What Is the Relationship between the Budget and Federal Debt?

interest on a cash basis, when the interest is actually credited to those accounts.⁵

Interest on debt held by the public essentially constitutes **net interest**.⁶ This interest is part of current outlays by the government and represents the burden of servicing the debt. Even with today's historically low interest rates, the \$153 billion in net interest in fiscal year 2003 was the sixth largest category of spending and constituted about 7 percent of total federal spending.

Gross interest in the budget essentially represents interest on all Treasury debt securities, including interest paid to the public and interest credited to government accounts. Trust funds and other government accounts holding federal debt are also credited with interest on that debt (since they are lending their surpluses to the Treasury). This interest—which totaled \$158 billion in fiscal year 2003—is an accounting transaction that typically does not require cash payments from the current budget or represent a burden on the current economy. In effect, one part of the government pays the interest to another part of the government—there is no net change in current spending. Like the rest of the balances in the trust funds, the interest received on debt held by government accounts represents a future priority claim on the U.S. Treasury.

⁵ The budget treats interest somewhat differently for certain securities held in government accounts, that is, zero-coupon bonds and securities held by four trust funds in the Department of Defense. These securities have large differences between the purchase price and par, which are amortized over the life of each security. The budget records interest as the amortization occurs.

⁶ In 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, somewhat reduce its total.



How does interest spending affect the federal budget and the level of federal debt?

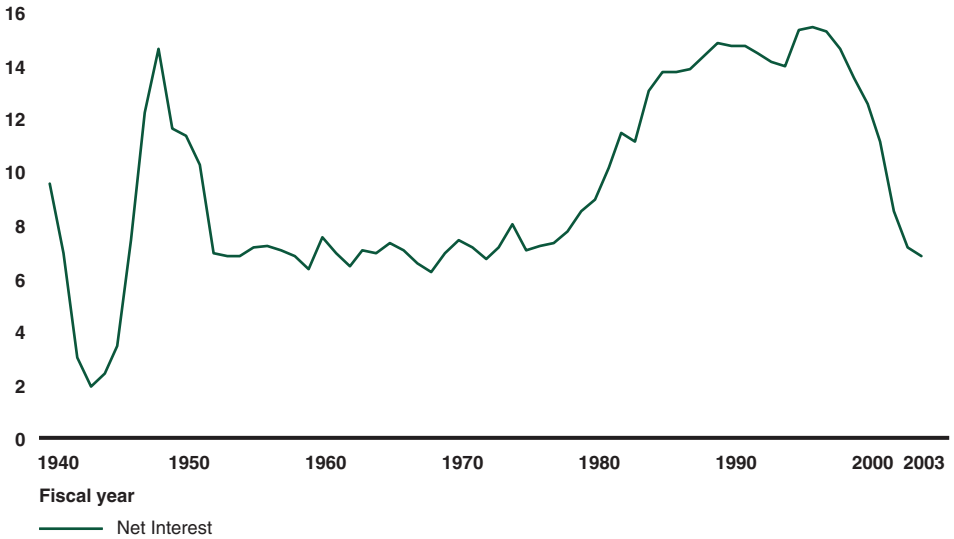
A. The federal debt primarily affects the federal budget through the level of interest spending. If interest on the federal debt is relatively large, this reduces budgetary flexibility because unlike other federal spending, interest cannot be changed directly. Rather, interest spending is a function of interest rates and the amount of debt on which interest must be paid. At any given interest rate, additional borrowing will drive up interest payments. Similarly, at any given level of debt, higher interest rates increase the amount of interest paid. The mix of Treasury debt also affects interest payments as longer-term debt typically bears a higher rate than shorter-term instruments; see section 4 for further discussion of Treasury debt management.

Spending for net interest overall rose sharply from about 9 percent of total federal spending in fiscal year 1980 to about 15 percent in fiscal year 1996. Since then, net interest spending declined to about 7 percent of total federal spending in 2003. (See fig. 9.) Currently, net interest represents the sixth largest spending item in the federal budget. (See fig. 10.)

Section 2: What Is the Relationship between the Budget and Federal Debt?

Figure 9: Net Interest as a Share of Total Federal Outlays (1940-2003)

18 Percentage of total outlays

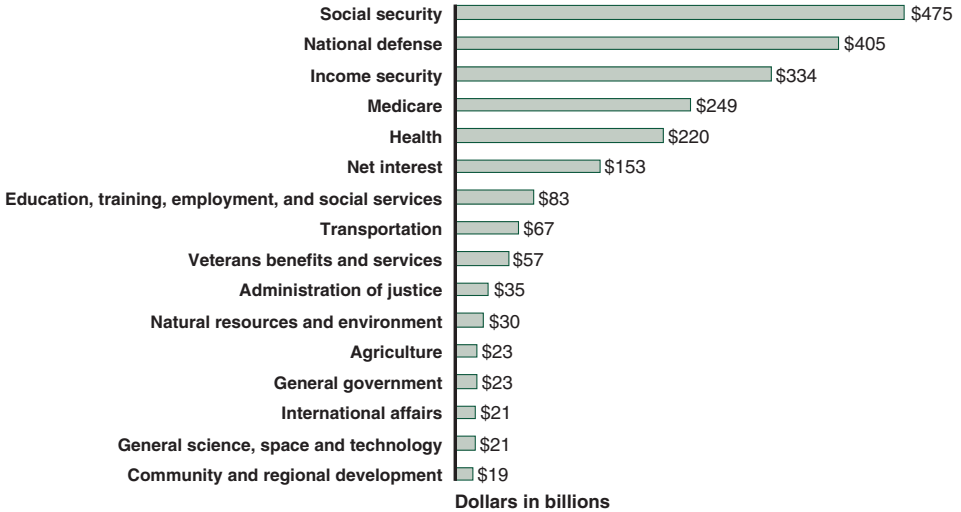


Source: Office of Management and Budget.

Note: Data from U.S. Office of Management and Budget, *Budget of the United States Government for Fiscal Year 2005 – Historical Tables* (Washington, D.C.: February 2004).

Section 2: What Is the Relationship between the Budget and Federal Debt?

Figure 10: Federal Outlays by Selected Budget Functions (Fiscal Year 2003)



Source: Office of Management and Budget.

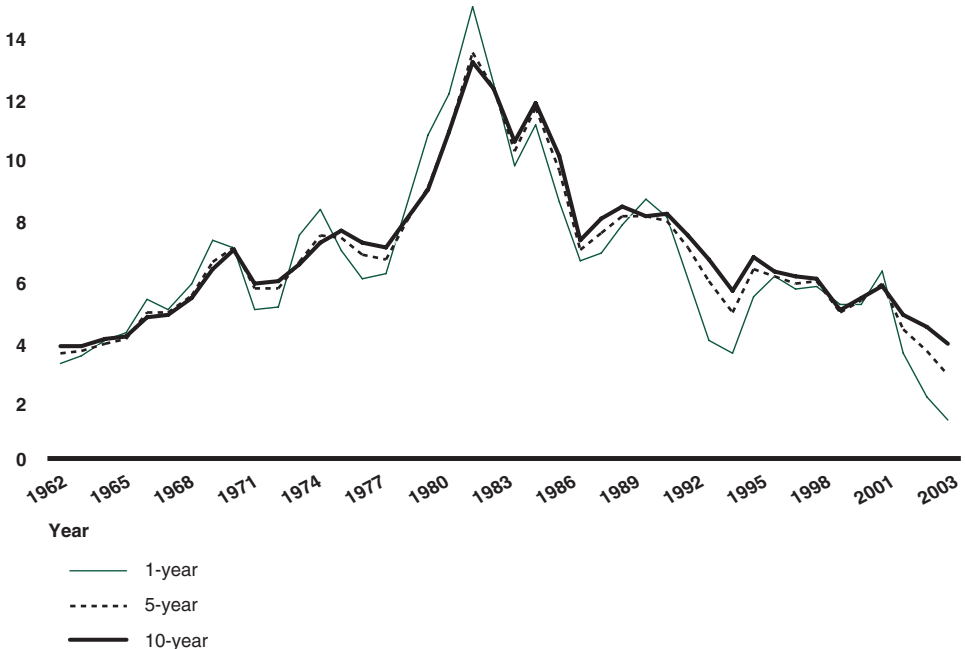
Notes: Data from U.S. Office of Management and Budget, *Budget of the United States Government for Fiscal Year 2005 – Historical Tables* (Washington, D.C.: February 2004). The budget function classification system is a way of grouping budgetary resources that provides a comprehensive and consistent means to capture federal spending according to area of national need.

There is no one interest rate on the federal debt held; interest rates vary with the specific type of debt security. Interest rates on the federal debt have fluctuated over time. For example, interest rates began to rise in the 1960s and grew to historically high levels in the early 1980s. Since then, interest rates have significantly declined. In 2003, the average interest rate on Treasury bills declined to a historically low level of about 1 percent. Figure 11 shows the average interest rates over the past 40 years on Treasury securities at 1-year, 5-year, and 10-year constant maturities.

Section 2: What Is the Relationship between the Budget and Federal Debt?

Figure 11: Selected Average Interest Rates on the Federal Debt (1962-2003)

16 Average rate



Source: Federal Reserve.

Notes: Data from Federal Reserve, "Selected Interest Rates, Historical Data," *Federal Reserve Statistical Release H.15* (Washington D.C.: Feb. 2, 2004), <http://www.federalreserve.gov/releases/h15/data.htm> (downloaded Feb. 4, 2004). Estimated rates reflect yields on actively traded issues adjusted to constant maturities.

In the past, interest payments contributed to deficits and helped fuel a rising debt burden. Rising debt, in turn, raised interest costs to the budget, and the federal government increased debt held by the public to finance these interest payments. This has been called the "vicious cycle." The change from a budget deficit to a surplus in 1998 reduced federal debt held by the public and replaced this "vicious cycle" with a "virtuous cycle" in which budget surpluses resulted in lower debt levels. The lower debt levels together

Section 2: What Is the Relationship between the Budget and Federal Debt?

with relatively low interest rates led to lower interest payments. These lower interest payments helped to bring about larger potential surpluses and increased budget flexibility.

Today, although debt held by the public has started to increase, relatively lower interest costs have lessened the pressure debt service places on the budget. At the end of fiscal year 1997, the federal government had a budget deficit and debt held by the public was approximately \$3.8 trillion. Similarly, at the end of fiscal year 2003, the federal government had a budget deficit and debt held by the public was about \$3.9 trillion. Despite the relatively lower level of debt held by the public in 1997, net interest spending was significantly higher than in 2003. For example, net interest spending totaled about \$244 billion at the end of fiscal year 1997 compared to \$153 billion at the end of fiscal year 2003. The lower interest burden in 2003 reflects in part lower average interest rates and a change in the debt mix. A higher share of debt is in lower-rate short-term **bills**, and some maturing long-term debt has rolled over at lower rates.



What are the uncertainties associated with debt and interest projections?

A. Ten-year debt and interest projections prepared by CBO⁷ are based on its baseline budget projections, which illustrate the size of projected annual deficits and surpluses (assuming that current laws and policies remain the same) as well as CBO's estimate of the government's other cash needs. Debt projections approximate the accumulation of deficits to the present and over the 10-year projection period. Net interest projections are based on CBO's forecast for short- and long-term interest rates and its assumption about the future mix of

⁷ The Office of Management and Budget also prepares baseline projections as well as 5-year budget projections showing the President's proposed policy changes.

Section 2: What Is the Relationship between the Budget and Federal Debt?

debt held by the public. Like budget projections, debt and interest projections are always uncertain and are not intended to be precise predictions for the future. Actual debt and interest will differ from the baseline projections because of policy changes the baseline is not intended to predict.

The budget remains vulnerable to changes in interest rates, which are expected to rise as the U.S. economy recovers and unemployment falls. For example, CBO estimated that for a 1-percentage point increase over the baseline in interest on the federal debt at every maturity (assuming other economic variables are unchanged), interest costs to the federal government would increase by about \$11 billion in fiscal year 2004. These costs would be fueled largely by the extra costs of refinancing the government's short-term debt, which makes up about 27 percent of marketable debt.

Baseline projections are based on various estimates and assumptions about how government programs will operate and how the economy will perform. Uncertainties in projecting the baseline relate to forecasting the overall performance of the economy; even small changes in economic projections can have significant budgetary implications.⁸ Additionally, relationships within the economy, such as the level of capital gains realizations or the effects of technological innovation, are difficult to predict and can substantially affect federal revenue or spending.

Ten-year budget projections are useful in that they allow policymakers to consider the implications of legislation further out than the 1- to 5-year budget window. However, 10 years is too short a time horizon for the significant pressures driving the U.S. fiscal future. For example, while the baby boom generation will first become eligible for Social Security benefits in 2008 and for Medicare in 2011, the full impact of the

⁸ Predicting turning points in the business cycle is particularly difficult, and according to CBO, revenues tend to be overestimated when the economy enters a recession and underestimated when the economy enters an expansion.

Section 2: What Is the Relationship between the Budget and Federal Debt?

baby boom retirement will not be felt until several years later.⁹ The retirement of this generation accompanied with rising health care costs will place unprecedented and long-lasting stress on the federal budget.

⁹ Individuals in the baby boom generation were born from 1946 through 1964. Earliest eligibility for Social Security benefits occurs at age 62 and for Medicare benefits at age 65.



SECTION 3: WHAT IS THE RELATIONSHIP BETWEEN THE ECONOMY AND FEDERAL DEBT?



What short-term and long-term economic developments may influence the level of federal borrowing?

A. Budget deficits or surpluses are affected not only by tax and spending policy decisions but also by economic developments. Short-term fluctuations in economic activity can cause tax or spending levels to change without any deliberate government action. For example, income tax collections are sensitive to economic fluctuations. During recessions the government collects less tax revenue due to the reductions in payrolls and the incomes of individuals and corporations. Correspondingly, during times of economic recovery the government collects more income tax revenue when payrolls and incomes rise. Spending for some government programs may also change automatically with the economy—although the response is smaller than on the tax side. For example, unemployment insurance costs increase in a recession as those unemployed apply for benefits.¹

Financial market conditions also influence the budget and federal borrowing in the short term. From the mid to late 1990s, for example, strongly rising stock markets led to increased tax receipts on realized capital gains. The subsequent decline in the stock market that began in 2001 reduced revenue received from the capital gains tax and contributed in part to the return of budget deficits.

Over the long term, federal borrowing will be heavily influenced by financing needs of programs targeted to the elderly population. Demographic trends, including the retirement of the baby boom generation, increasing life

¹ These effects are known as automatic stabilizers, which are provisions built into the structure of the federal budget that alter tax or spending levels based on economic fluctuations without any explicit government action.

Section 3: What Is the Relationship between the Economy and Federal Debt?

expectancy, and declining fertility rates will continue to contribute to the dramatic growth of the elderly population. Since 1950, the share of people age 65 or older has grown rapidly and accounts for an increasing share of the total population. (See fig. 12.)

Figure 12: Changes in Aged Population as a Share of Total U.S. Population (1950-2080)

25 Percentage of total population



Source: Office of the Chief Actuary, Social Security Administration.

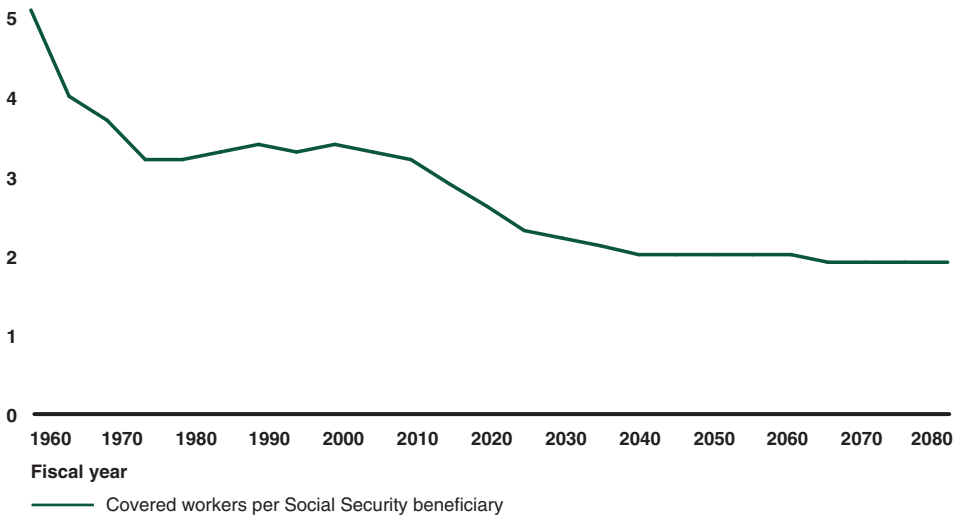
Note: Projections based on the intermediate assumptions of *The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance Trust Funds*.

As people live longer and have fewer children, there will be relatively fewer workers for each retiree. In 1960, there were about 5 workers for each Social Security beneficiary. Today, there are approximately 3.3 workers for each beneficiary, and the Social Security Trustees project that this number will fall to 2.2 by 2030. (See fig. 13.) Unless immigration or fertility rates change substantially, or unless retirement patterns change, that figure will continue to decrease slowly after 2030.

Section 3: What Is the Relationship between the Economy and Federal Debt?

Figure 13: Social Security Workers per Beneficiary (1960-2080)

6 Covered workers per Social Security beneficiary



Source: Office of the Chief Actuary, Social Security Administration.

Note: Projections based on the intermediate assumptions of *The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance Trust Funds*.

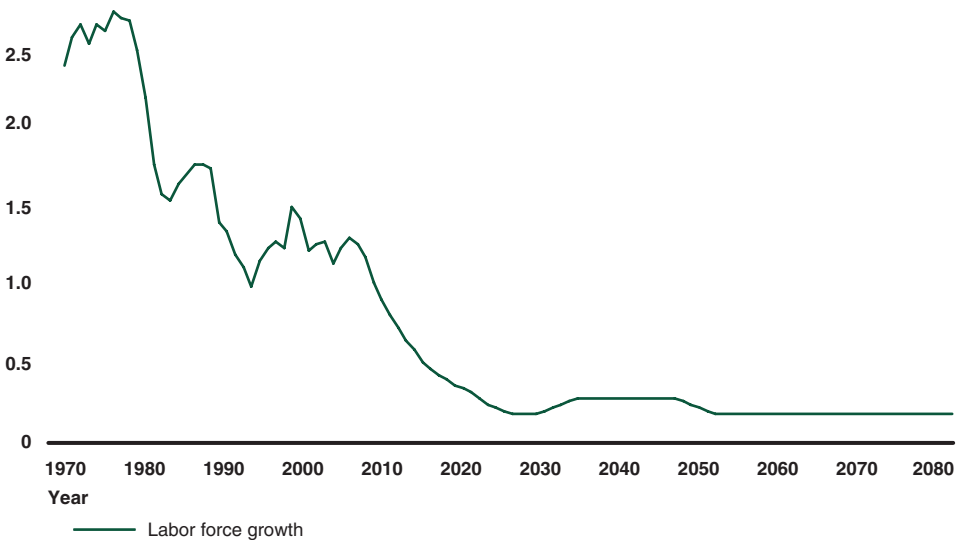
These demographic trends mean that labor force growth will drop after 2010, and by 2025 is expected to be less than a third of what it is today. (See fig. 14.) Relatively fewer workers will be available to produce the goods and services that all will consume. Without a major increase in productivity, low labor force growth will lead to slower growth in the economy and slower growth of federal revenues. This in turn will only accentuate the overall pressure on the federal budget and the need for borrowing. Assuming no changes to currently projected benefits and revenues, Social Security and Medicare ultimately will pose an unsustainable burden on future

Section 3: What Is the Relationship between the Economy and Federal Debt?

taxpayers and would significantly reduce the nation's economic growth.

Figure 14: Labor Force Growth (1970-2080)

3.0 Percentage change in labor force (5-year moving average)



Source: GAO analysis of data from the Office of the Chief Actuary, Social Security Administration.

Note: Percentage change is calculated as a centered 5-year moving average of projections based on the intermediate assumptions of *The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance Trust Funds*.

Over the longer term, economic growth can reduce the burden of annual deficits and debt accumulated. Productivity growth leading to a larger economy in turn would help tomorrow's slow-growing workforce as it struggles to meet the burden of paying for the baby boomers' retirement while achieving a rising standard of living for itself. However, faster economic growth alone will not eliminate the long-term fiscal pressures arising from an aging population and federal commitments to

Social Security and Medicare.² With advances in medical technology likely to keep pushing up the cost of providing health care, federal spending for Medicare and Medicaid is expected to increase faster than the rest of the economy. (See sec. 5 for more information on the long-term fiscal outlook.)



What are the pros and cons of federal borrowing?

A. Federal borrowing has both advantages and disadvantages that vary depending upon economic circumstances. In addition, views of federal borrowing generally vary with its size in relation to the economy and stage of the business cycle. Borrowing, in lieu of higher taxes or lower government spending, may be viewed as appropriate during times of economic recession, war, and other temporary challenges or national needs. Borrowing during a recession can help to maintain household income and spending levels and reduce the severity of a recession.³ Similarly, borrowing in times of war can finance increased defense spending without reducing other government spending or enacting large tax increases that could be disruptive to the economy. The federal government financed World War II with huge deficits to avoid even larger tax increases and economic distortions. Further, borrowing can finance higher government spending in response to other temporary challenges or national needs, such as large natural disasters or the terrorist attacks of September 11, 2001. Borrowing for such short-term circumstances can permit the government to hold tax rates relatively stable and avoid economic disruptions.

² See Rudolph G. Penner, “Can Faster Growth Save Social Security?” *Issue In Brief No. 15* (Chestnut Hill, Mass.: Center for Retirement Research, December 2003).

³ Federal borrowing may be higher during a recession because tax revenue declines and federal benefit payments for programs such as unemployment insurance automatically increase.

Section 3: What Is the Relationship between the Economy and Federal Debt?

Federal borrowing might also be viewed as appropriate for federal investment, such as building roads, training workers, and conducting scientific research, contributing to the nation's capital stock and productivity.⁴ Spending on physical capital, education, and research and development (R&D) accounted for 16 percent of total federal outlays in fiscal year 2003. Public facilities, such as transportation systems and water supplies, are vital to meeting immediate as well as long-term public demands for safety, health, and improved quality of life. R&D and education have long been seen as areas for government action given the private sector's inability to capture all of the societal benefits that such investments provide. In concept, federal spending that is well chosen, properly designed, and properly administered could ultimately contribute to producing a larger economy from which to pay the interest and principal on the borrowed funds. However in practice, CBO concluded that many federal investments might not significantly increase economic growth because some are selected for political or other noneconomic reasons and others displace more productive investments by the private sector or state and local governments.⁵

Any judgment about borrowing involves trade-offs and the costs of borrowing could outweigh the benefits. Borrowing for additional spending or lower taxes aimed at maintaining current consumption improves short-term well-being for today's workers and taxpayers but does not enhance our ability to repay the borrowing in the future. Although reducing federal deficits is the surest way to increase national saving available for private investment, the composition of federal spending also matters. At some point, reducing federal deficits at the expense of federal investment spending raises concerns about the outlook for the nation's infrastructure, future

⁴ In addition to its own investment spending, the federal government can also influence saving and investment by state and local governments and the private sector by providing funding and tax incentives.

⁵ CBO reviewed evidence available on the economic value of federal investments in infrastructure, education and training, and R&D. For more information, see U.S. Congressional Budget Office, *The Economic Effects of Federal Spending on Infrastructure and Other Investments* (Washington, D.C.: June 1998).

Section 3: What Is the Relationship between the Economy and Federal Debt?

workers' skills, technological advancement, and thus economic growth. For any given fiscal policy path, policymakers can strive to allocate a greater share of federal spending on well-chosen investment activities aimed at enhancing long-term productivity.

In the near term, federal borrowing absorbs scarce savings available for private investment and can exert upward pressure on interest rates. When the economy is operating near full capacity, government borrowing can be large enough to affect overall interest rates, making borrowing more expensive for individuals and families who take out loans for homes, cars, and college. Or, as discussed below, the United States has been able to invest more than it saves by borrowing from abroad.

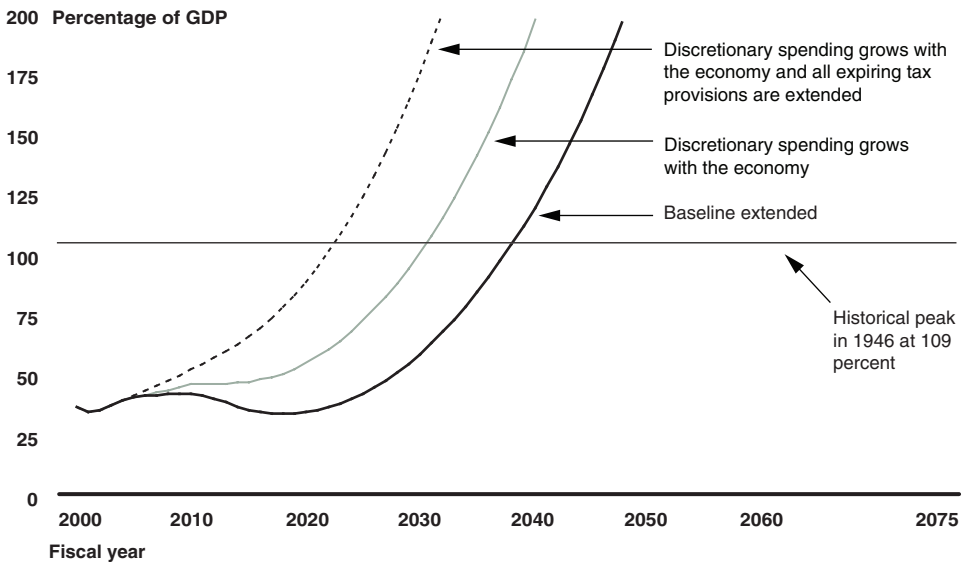
Over the long term, the costs of federal borrowing will be borne by tomorrow's workers and taxpayers. Higher saving and investment in the nation's capital stock—factories, equipment, and technology—increase the nation's capacity to produce goods and services and generate higher income in the future. Increased economic capacity and rising incomes would allow future generations to more easily bear the burden of the federal government's debt. Persistent deficits and rising levels of debt, however, reduce funds available for private investment in the United States and abroad. Over time, lower productivity and GDP growth ultimately may reduce or slow the growth of the living standards of future generations.

The fiscal policies in place today—absent substantive entitlement reform and dramatic changes in tax and spending policies—will result in large, escalating, and persistent deficits that are economically unsustainable over the long term. In other words, today's policies cannot continue forever. Demographic trends; escalating health care costs; and the projected growth in federal spending for Social Security, Medicare, and Medicaid have created mounting fiscal pressures that will affect the economy. GAO's fiscal policy simulations show that over the long term, debt held by the

Section 3: What Is the Relationship between the Economy and Federal Debt?

public will rise to unprecedented levels as a share of GDP.⁶ Previously, debt held by the public peaked at about 109 percent of GDP in 1946 following the Great Depression and World War II. (For additional information on the historical trends of debt held by the public as a share of GDP, see fig. 5 in sec. 2.) Due primarily to known demographic trends and rising health care costs, our long-range budget simulations show debt held by the public far surpassing this level in the coming decades. Figure 15 illustrates the growing debt burden facing the nation.

Figure 15: Debt Held by the Public as a Share of GDP under Alternative Fiscal Policy Simulations (2000-2075)



Source: GAO.

⁶ Long-term simulations provide illustrations—not precise forecasts—of the relative fiscal and economic outcomes associated with alternative policy paths. They are not predictions of what will happen in the future because policymakers would likely take action before the occurrence of the negative out-year fiscal and economic consequences reflected in some simulated fiscal policy paths.

Section 3: What Is the Relationship between the Economy and Federal Debt?

Notes: Simulations are from GAO's March 2004 long-term analysis. Simulations assume currently scheduled Social Security benefits are paid in full throughout the simulation period. GAO's "baseline extended" simulation follows CBO's 2004 10-year baseline projections, which assume that discretionary spending grows with inflation and tax provisions scheduled to expire will actually do so. After 2014, discretionary spending is assumed to grow with the economy, and revenue is held constant as a share of GDP at the 2014 level of 20.1 percent. GAO's "discretionary spending grows with the economy and all expiring tax provisions are extended" follows CBO's January 2004 10-year baseline projections except that discretionary spending grows with the economy after 2004 and all expiring tax provisions are extended. After 2014, revenue is held constant as a share of GDP at the 2014 level of 17.7 percent.

GAO's long-term simulations show that absent policy actions aimed at deficit reduction, debt burdens of such magnitudes imply a substantial decline in national saving available to finance private investment in the nation's capital stock. The fiscal paths simulated are ultimately unsustainable and would inevitably result in declining GDP and future living standards. Even before such effects, these debt paths would likely result in rising inflation, higher interest rates, and the unwillingness of foreign investors to invest in a weakening American economy.

Conversely, reducing the deficit and associated borrowing can generate increases in economic growth by increasing **national saving** and freeing resources for private investment. Domestic investment can boost productivity of the nation's workforce and lead to higher real wages and greater economic growth over the long term. A simulation using GAO's long-term budget model suggests that in 50 years a permanent deficit reduction of 1 percent as a share of GDP could increase the **gross national product (GNP)** per capita—a measure of living standards—by 2.3 percent. Figure 16 shows that this amounts to almost \$2,000 in higher income per person in 2003 dollars.⁷

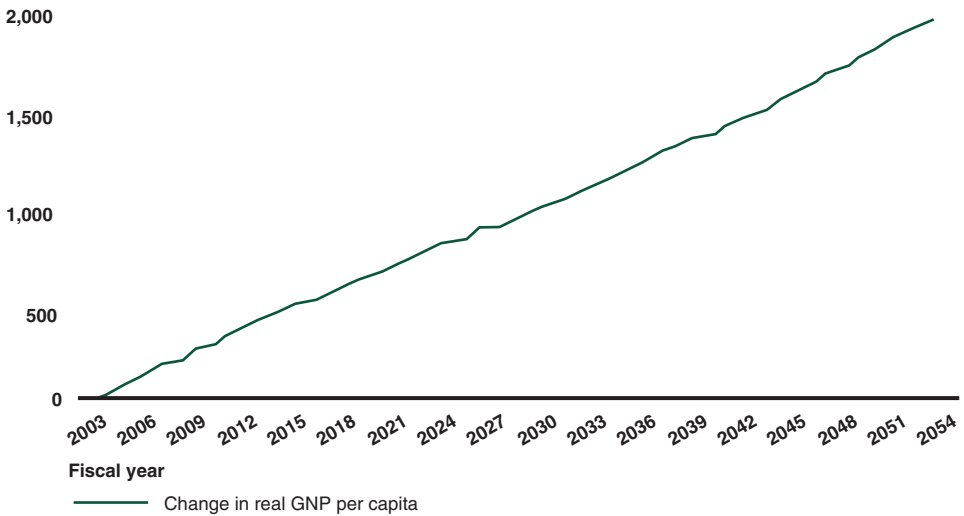
⁷ The effect of deficits on growth cannot be determined precisely because the outcome depends on a number of factors subject to uncertainty, including the response of private saving to a change in the deficit, the extent to which an increase in national saving is invested overseas, and the returns on those investments. If private savers were to respond by reducing their saving by the same amount as the decrease in the deficit, for example, deficit reduction would have no effect on economic growth.

Section 3: What Is the Relationship between the Economy and Federal Debt?

Larger deficit reductions could provide commensurately larger increases in future income.

Figure 16: Increase in GNP Per Capita Associated with Permanent Deficit Reduction of 1 Percent of GDP (2003-2054)

2,500 2003 dollars



Source: GAO.

Notes: Simulation is from GAO's long-term fiscal model. The effect of deficits on growth cannot be determined precisely because the outcome depends on a number of factors subject to uncertainty. Our model assumes that private saving is unaffected by changes in the deficit and that one-third of the increase in national saving that results from deficit reduction is invested abroad. Increases are calculated in 2003 dollars.



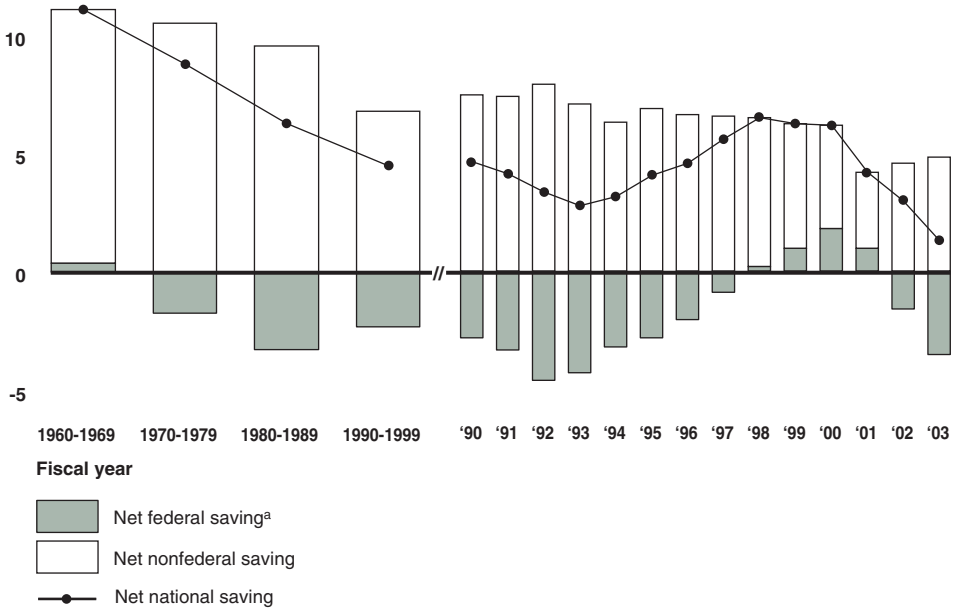
What has been the interaction between federal borrowing and saving?

A. Federal deficits subtract from national saving by absorbing funds saved by households, businesses, and other levels of government that would otherwise be available for investment. Conversely, federal surpluses add to national saving and increase resources available for investment. The large amounts of federal borrowing in the 1980s and 1990s occurred at a time when private saving was declining as a share of the economy. This meant that large federal government deficits further decreased a shrinking pool of domestic private saving available for private investment. The federal government ran surpluses in fiscal years 1998 through 2001—for the first time since 1969—so that it added to, instead of subtracting from, the saving of other sectors. With the return of deficits, fiscal policy is once again subtracting from national saving, which is particularly important given the relatively low level of nonfederal saving. (See fig. 17.)

Section 3: What Is the Relationship between the Economy and Federal Debt?

Figure 17: Composition of Net National Saving (Fiscal Years 1960-2003)

15 Percentage of GDP



Source: GAO analysis of National Income and Product Accounts (NIPA) data from the Bureau of Economic Analysis, Department of Commerce.

^aNet federal saving is similar to the federal unified budget surplus or deficit; however, there are some conceptual differences.

The U.S. national saving rate is not only low by historical standards but has been well below that of other major industrial countries over the past few decades. From 1984 through 2002, the U.S. average gross national saving rate was sixth of seven major industrialized countries.⁸ (See fig. 18.) 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

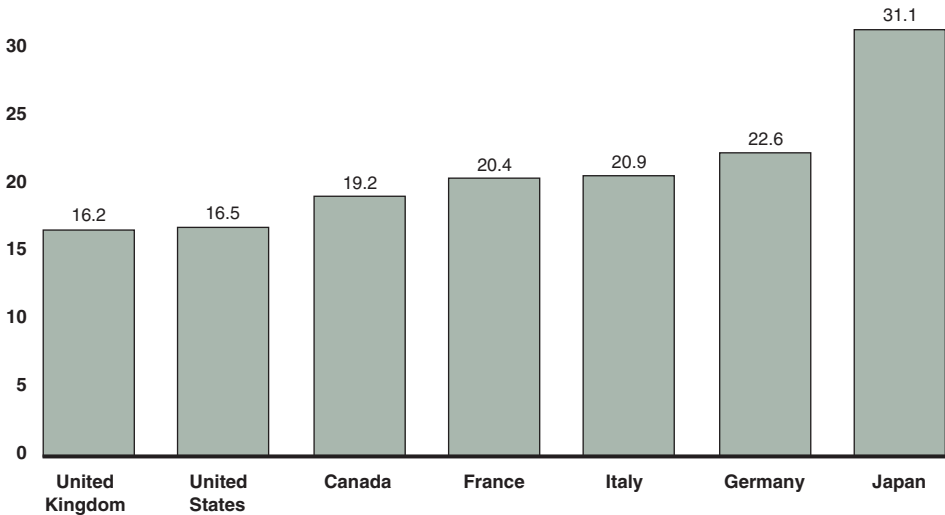
⁸ Gross national saving includes the saving of all sectors—households, businesses, and government; whereas, net national saving is gross national saving less consumption of fixed capital (depreciation).

Section 3: What Is the Relationship between the Economy and Federal Debt?

investments may boost workers' productivity, which in turn produces higher wages and faster economic growth. Less investment today means slower economic growth tomorrow.

Figure 18: Average Gross National Saving Rates of Selected Countries (1984-2002)

35 Percentage of nominal GDP



Source: Organisation for Economic Co-operation and Development.

Notes: Data from Organisation for Economic Co-operation and Development, *OECD Economic Outlook No. 74*, vol. 2 (Paris: December 2003). Japan's average gross national saving rate is calculated from 1984 through 2001.

A drop in national saving does not necessarily result in an immediate or equivalent decline in investment because the 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. The effects of foreign borrowing, however, are mixed. Foreign borrowing can benefit the United States by allowing increased levels of consumption, investment, and government spending than otherwise possible. However, it also constitutes a future burden on the economy as interest payments on this investment flow abroad. Furthermore, the

Section 3: What Is the Relationship between the Economy and Federal Debt?

increasing reliance on foreign borrowing could be detrimental to both the domestic and global economies. If the willingness of foreigners to invest in U.S. Treasury securities or other U.S. assets decreases, the value of the dollar could fall, interest rates could rise, or consumer prices could increase. (See sec. 4 for additional information on foreign holdings of U.S. Treasury securities.)

The United States may have to pay higher interest rates to attract foreign investment in the future because other countries have their own economic and fiscal challenges, such as the aging of the baby boom generation. Other countries could earn relatively higher returns on their savings at home if there were more profitable opportunities available in their own countries. Further, the U.S. dollar faces competition in international capital markets. Some have suggested that the availability of the euro, which is the single currency of 12 European countries,⁹ eventually could eliminate the unique advantage held by U.S. securities—a broad, deep market for low-risk securities denominated in an easily convertible currency. As the market for euro-denominated securities broadens and deepens, euro-denominated debt securities could become a closer competitor for U.S. Treasury securities.

⁹ The euro area members are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. The euro also circulates in a number of other countries and territories around the world.



How does the government borrow, and what debt instruments are used?

A. The federal government borrows by issuing securities, mostly through the Department of the Treasury. The U.S. Treasury has the single largest outstanding stock of debt instruments in world financial markets. At the end of fiscal year 2003, a total of \$3.46 trillion in all forms of marketable securities was outstanding. 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 a few days with cash management bills to 30 years with bonds. Since 1997, the Treasury has also offered **inflation-indexed securities**. Table 1 shows the Treasury's current auction schedule for bills that mature in a year or less, notes with maturities of a year or more to 10 years, and bonds with maturities of greater than 10 years. In July 2004, the Treasury began auctioning 20-year inflation-indexed bonds. Prior to this, the Treasury had not issued marketable bonds since its decision to suspend issuance of 30-year bonds in October 2001.²

¹ The 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 (such as Social Security and Medicare) and other government accounts also are primarily nonmarketable.

² The Treasury offers nonmarketable savings bonds with maturities up to 30 years.

Section 4: Federal Debt Management and Ownership

Table 1: Schedule of Treasury Securities Auctions as of July 2004

Maturity	Frequency
Treasury bills	
28-day (4-week)	Weekly
91-day (3-month)	Weekly
182-day (6-month)	Weekly
Cash management	Irregular, as needed
Notes	
2-year	Monthly
3-year	February, May, August, and November
5-year	Monthly
10-year	February, May, August, and November Reopened: ^a March, June, September, and December
Inflation-indexed securities	
5-year ^b	April and October
10-year	January and July Reopened: ^a April and October
20-year ^b	January and July

Source: Department of the Treasury, Bureau of the Public Debt.

^aReopening debt issues allows the Treasury to add new debt to existing issues, rather than create new issues. A reopened issue has the same maturity date and interest rate as the original issue.

^bTreasury announced the 5-year and 20-year inflation-indexed securities in May of 2004. The 5-year inflation-indexed security will first be issued in October 2004, and the 20-year was first issued in July 2004. These first issues will each be reopened twice. The first 5-year and 20-year inflation-indexed securities to be issued in 2006 will each only be reopened once, 6 months after their original issue.

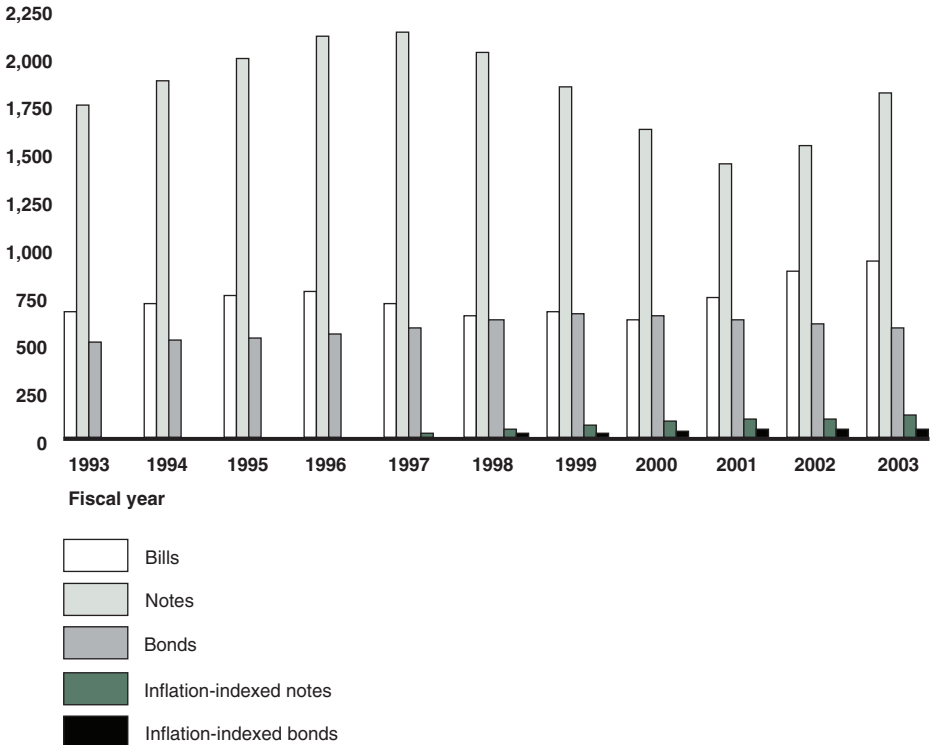
Bills are issued at a discount from the par amount—or face value—and the Treasury repays the par value at maturity. Notes are typically issued at a small discount from par value and pay interest semiannually at a fixed rate. Most notes (nominal securities) return the par value at maturity; inflation-indexed securities repay principal adjusted for **inflation**. Interest payments on inflation-indexed securities are adjusted for inflation as they are paid because they are figured on the inflation-adjusted principal. However, the payment for inflation-adjusted principal is made at maturity and, therefore,

Section 4: Federal Debt Management and Ownership

is the largest payment to investors. Over the past decade, nominal notes have constituted the largest portion of outstanding U.S. Treasury securities while inflation-indexed securities constitute the smallest outstanding portion. (See fig. 19.)

Figure 19: Treasury Bills, Notes, and Bonds Outstanding (1993-2003)

2,500 Dollars in billions



Source: Department of the Treasury, Bureau of the Public Debt.

Note: Data from the Bureau of the Public Debt's *Monthly Statement of Public Debt* (September 1993-2003).

The mix of securities changes regularly as new debt is issued. The mix of securities is important because it can have a

Section 4: Federal Debt Management and Ownership

significant influence on the federal government's interest payments. For nominal (i.e., not inflation-indexed) securities, longer-term securities typically carry higher interest rates—or cost to the government—than shorter-term securities because investors demand higher interest to compensate for what they see as greater risks, such as higher inflation in the future. However, longer-term nominal securities offer the government the certainty of knowing what the Treasury's payments will be over a longer period. Because bills roll over more frequently, changes in interest rates on bills will more rapidly affect interest costs in the federal budget. For inflation-indexed securities, small changes in inflation can have a significant effect on interest payments. If inflation is higher than expected, the government's borrowing costs of inflation-indexed securities may be greater than the cost of nominal securities. The converse would be true if inflation were lower than anticipated.



What is the Treasury's goal for debt management?

A. The Treasury's overarching debt management goal is to ensure that the federal government's financing needs are met at the lowest cost to taxpayers over time. To do this, the Treasury aims to manage cash balances sufficient to meet the government's obligations at the lowest cost to taxpayers, and to secure borrowed cash at the lowest cost to taxpayers by maintaining regular and predictable auctions and promoting liquid markets for Treasury securities.

The Treasury receives revenues and pays expenses for the U.S. government. When expenditures exceed revenues, the Treasury borrows to obtain sufficient cash to meet its obligations. The Treasury's cash needs throughout the fiscal year reflect government revenues and outlays, and generally, the Treasury's borrowing cycles are determined by projections of these cash needs. If actual revenue or outlays differ significantly from projections, Treasury may need to issue cash

management bills to cover low points in available cash.³ Maintaining sufficient cash balances allows the Treasury to absorb unexpected low points in receipts or spikes in outlays and to limit issuance of cash management bills. Of course, maintaining cash balances carries cost for taxpayers.

Treasury officials believe maintaining regular and predictable auction schedules, and issuing a variety of securities in sufficient amounts, lowers the government's cost of borrowing over time. Regular and predictable auction schedules provide investors greater certainty and better information with which to plan their investments. The Treasury will issue securities even when the short-term cost of borrowing is higher than preferred in return for the long-term benefits of maintaining a regular and predictable auction schedule. The Treasury does not seek to "time the market" by issuing debt instruments when rates or other factors are favorable because Treasury officials believe this will disrupt Treasury security markets and raise the government's cost of borrowing over time. Issuing securities with various maturities and in sufficient amounts to appeal to the broadest range of investors promotes liquid markets for Treasury securities by allowing investors to more easily buy and sell Treasury securities. Overall, investors are willing to reward the Treasury with lower borrowing costs in return for the benefits of certainty and liquidity.



What challenges does the Treasury face in achieving its debt management goal?

A. In achieving its debt management goal of lowest cost borrowing, the Treasury deals with challenges of constantly changing financial markets and uncertainties surrounding the government's future borrowing needs. When making its management decisions, the Treasury considers the needs of

³ Cash management bills are announced, auctioned, and have maturity dates based on the Treasury's immediate need.

Section 4: Federal Debt Management and Ownership

investors and other market participants, such as brokers and dealers who purchase Treasury securities for resale on the secondary market.⁴

The Treasury must consider the volume of securities to be issued at a given maturity in relation to changing market demands for Treasury securities. Treasury market participants purchase Treasury securities for a variety of purposes, including securing stable sources of income, trading to take advantage of interest rate movements, or reducing the risk associated with financial transactions (also known as “hedging”). Constantly changing market demands make it difficult for the Treasury to predict the type of Treasury securities investors prefer. Even in this environment, the Treasury seeks to maintain a regular and predictable auction schedule. If the Treasury offers too much of a given security, it may have to pay a higher cost to attract investors. If the Treasury offers too little of a given security, it may reduce the security’s liquidity in the secondary market.

The Treasury must make current debt management decisions with uncertain information about the future of government borrowing needs. Policy changes and national economic performance are difficult to project and can quickly and substantially affect federal cash flow. (See sec. 2 for further discussion of baseline projections and debt and interest uncertainties.) The Treasury aims to anticipate and respond to often dramatically and quickly changing borrowing outlooks, while positioning itself to accommodate future changes in borrowing needs at the lowest cost to the government. The Treasury sets its auction schedule to (1) appeal to the broadest range of investors, thereby helping to promote liquidity and efficiency in the markets for Treasury securities, and (2) build in a certain amount of issuance flexibility in order to reduce the frequency of future changes to the auction schedule, helping to promote predictability in Treasury markets.

⁴ The Treasury formally solicits recommendations on debt structure and the mix of securities from primary security dealers and from the Treasury Borrowing Advisory Committee. Treasury officials meet quarterly with the Treasury Borrowing Advisory Committee to discuss economic forecasts and the government’s borrowing needs.



How do budget conditions affect debt management?

A. The Treasury’s debt management goal—to meet the government’s financing needs at the lowest cost over time—remains the same regardless of whether the unified budget is in surplus or deficit. However, the Treasury will vary the size and frequency of auctions, as well as the types of debt instruments to be auctioned, according to anticipated budget conditions and borrowing needs. Generally, during deficits the Treasury increases debt sold to the public, and during surpluses, the Treasury sells less debt to the public or reduces debt held by the public.

With the switch from decades of persistent federal deficits to annual surpluses in fiscal years 1998 through 2001, debt held by the public decreased by over \$452 billion (12 percent). To accommodate this change in borrowing needs, the Treasury adjusted its debt management strategy in order to maintain liquid issues while reducing the overall supply of Treasury debt. This can be challenging for debt managers. Generally, when governments with budget surpluses reduce borrowing, continuing with smaller, less liquid issues can increase government borrowing costs. With the advent of sustained surpluses, a key Treasury strategy toward achieving the lowest cost borrowing over time was to concentrate outstanding debt into a fewer number of liquid **benchmark issues**. To do this, the Treasury eliminated some instruments—like the 3-year note and 52-week bill—and reduced the auction frequency of other instruments—like the 5-year note—in favor of fewer, larger auctions. The Treasury also suspended nominal and inflation-indexed 30-year bonds in October 2001. Finally, the Treasury introduced “reverse auctions” to buy back

Section 4: Federal Debt Management and Ownership

approximately \$67.5 billion in Treasury securities from fiscal years 2000 through 2002.⁵

With the return to deficits in fiscal years 2002 and 2003, debt held by the public increased by \$594 billion (about 18 percent). The Treasury's focus has moved from maintaining market liquidity with a declining supply of Treasury securities to offering the best mix of debt securities that is most attractive to investors. The Treasury has adjusted its debt management strategy to accommodate the government's increased borrowing needs, which included increasing the size and frequency of new debt offerings. The Treasury reintroduced the 3-year note and increased the number of auctions for 5-year notes as well as 10-year inflation-indexed and nominal notes. The Treasury also suspended debt buyback operations in April 2002. Treasury began auctioning 20-year inflation-indexed securities in July 2004 and plans to auction 5-year inflation-indexed securities beginning in October 2004.



Who holds Treasury securities?

A. The federal debt held by the public is owed to a wide variety of investors, including individuals, banks, businesses, pension funds, the Federal Reserve banking system, state and local governments, and foreign institutions. These buyers are attracted by the securities' perceived freedom from credit risk, their ready marketability, their exemption from state and local taxes, and the wide range of maturities. Ownership information is estimated because many securities are continually resold among investors and the Treasury does not track these sales. (See fig. 20.)

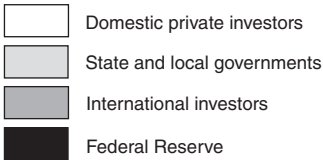
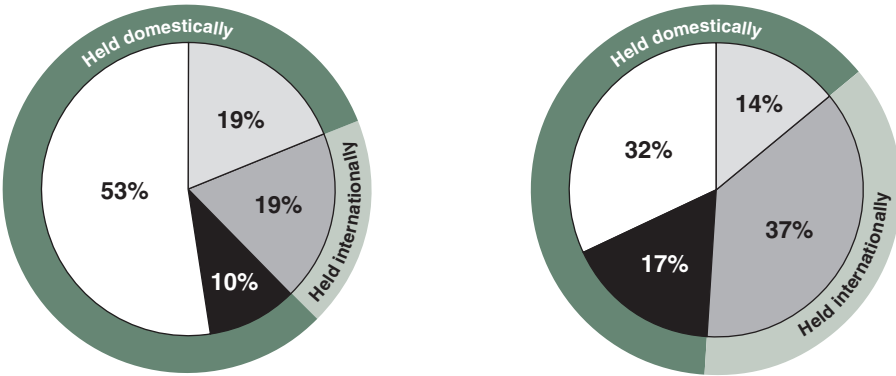
⁵ The Treasury used a program of ongoing, regularly scheduled reverse auctions to buy back Treasury securities with targeted maturities. Reverse auctions allow market participants to competitively offer to sell Treasury securities back to the Treasury. The Treasury can accept the most competitive offers.

Section 4: Federal Debt Management and Ownership

Figure 20: Estimated Ownership of Debt Held by the Public (End of Fiscal Years 1993 and 2003)

Fiscal year 1993

Fiscal year 2003



Source: Department of the Treasury.

Notes: Estimated ownership data from the U.S. Department of the Treasury, *Treasury Bulletin* (Washington, D.C.: December 1993 and March 2004). Numbers may not add to 100 percent due to rounding.

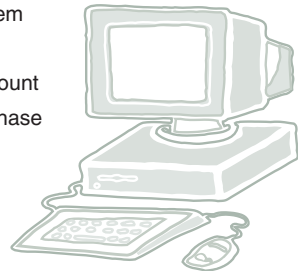
The Treasury estimates that domestic private investors—non-foreign-based private sector investors—including individuals and other investors, owned approximately 32 percent of debt held by the public as of September 2003. Larger investors such as depository institutions, pension funds, and insurance companies hold the majority of this amount. However, smaller investors also directly own Treasury securities. For example, anyone who owns a United States **savings bond** holds a portion of the debt. (See fig. 21.)

Section 4: Federal Debt Management and Ownership

Figure 21: Purchasing Treasury Securities

Most Treasury securities are sold initially to dealers and brokers for resale in the secondary market. Individual investors can then purchase marketable Treasury securities, including **STRIPS** (notes and bonds whose interest and principal components have been separated), through an investment advisor. Many pension funds and money market accounts include Treasury securities, so small investors also are represented indirectly through these holdings.

Individuals can also purchase Treasury securities and savings bonds directly from the Department of the Treasury's Bureau of the Public Debt. TreasuryDirect allows individuals to buy most Treasury bills, notes, and bonds^a through electronic services (both over the Internet or by phone) or by traditional paper tender. The program is intended for investors who buy securities at original issue and hold them until they mature. The minimum amount that you can purchase of any given Treasury bill or note is \$1,000.



Individuals may also buy and redeem Series EE and I Savings Bond securities directly over the Internet using TreasuryDirect. Savings bonds can also be purchased through local banks and financial institutions or through a Payroll Savings Plan offered by many employers. You can buy savings bonds for as little as \$25.

Source: Department of the Treasury, Bureau of the Public Debt.

^aCash management bills, 4-week Treasury bills, and STRIPS are not available through TreasuryDirect. Treasury has not offered new marketable bonds since it suspended issuance of the 30-year bond in October 2001.

Federal Reserve banking system ownership of debt held by the public increased from 10 percent to 17 percent from 1993 through 2003 in line with the growth in demand for depository

Section 4: Federal Debt Management and Ownership

institution reserves and currency. The Federal Reserve, as part of its **monetary policy** operations, purchases and sells Treasury securities to affect the level of reserve funds at depository institutions and short-term interest rates and, ultimately, influence national employment, output, and the general level of prices. Broad and active Treasury security markets allow the Federal Reserve to buy and sell large quantities of Treasury securities without unduly disrupting the market.

State and local government holdings amounted to approximately 14 percent of debt held by the public in 2003—down from 19 percent in 1993 but up from 11.7 percent in 1997. State and local governments purchase marketable Treasury securities as investments for their pension funds or for other purposes, such as investing otherwise idle tax revenues until they are needed. In addition, state and local governments purchase special **nonmarketable Treasury securities**, known as the State and Local Government Series, to invest borrowed funds temporarily until they are needed for other purposes, such as financing capital projects.

The Treasury estimates that nearly two-thirds (63 percent) of the debt held by the public is owed to U.S. investors including the Federal Reserve, which means that interest and principal payments are made mainly to individuals and institutions residing in the United States. Foreign-based investors hold slightly more than one-third (37 percent) of the debt held by the public.⁶ Nearly 60 percent of this amount is held by foreign official institutions like central banks, ministries of finance, or similar institutions. After averaging about 18 percent in the early 1990s, estimated foreign holdings rose to 32 percent by 1997 as the net increase in foreign holdings of Treasury securities outpaced the net increase in federal borrowing in those years. From the late 1990s to September 2003, foreign holdings increased to roughly 37 percent. U.S. Treasury

⁶ For a discussion of the system used to estimate foreign holdings, including methodological limitations, see William L. Grier, Gary A. Lee, and Francis E. Warnock, "The U.S. System for Measuring Cross-Border Investment in Securities: A Primer with a Discussion of Recent Developments," *Federal Reserve Bulletin* (Washington, D.C.: October 2001).

Section 4: Federal Debt Management and Ownership

securities play a prominent role in world financial markets. Foreign and domestic investors are attracted to their credit quality, the ability to easily buy or sell Treasury securities around-the-clock, and their worldwide status as a benchmark security. The United States benefits from foreign purchases of government securities because foreign investors fill part of our borrowing needs. However, to service this foreign-held debt, the United States government must send interest payments abroad, which adds to the incomes of residents of other countries rather than to the incomes of United States residents.



What are key considerations for the future?

A. With the recent expiration of provisions of the 1990 **Budget Enforcement Act** in 2002, the Congress and the President face the challenge of sorting out the many claims on the federal budget without the discretionary spending caps or other pay-as-you-go enforcement mechanisms that served to reduce deficits and guide the federal government into a brief period of surplus. New accounting and reporting approaches, budget control mechanisms, and metrics are needed for considering and measuring the impact of tax and spending decisions over the long term.

Waiting to take action entails risks. First, we lose the opportunity to reduce the burden of interest in the federal budget, thereby creating a legacy of higher debt as well as elderly entitlement spending for the relatively smaller workforce of the future. Second, the nation would lose an important window where today's relatively large workforce can increase saving and enhance productivity, two elements critical to growing the future economy. Third, and most critically, we risk losing the opportunity to phase in changes gradually. Addressing the nation's fiscal imbalance requires a three-pronged approach to (1) restructure existing entitlement programs, (2) reexamine the base of discretionary and other spending, and (3) review and revise the federal government's tax policy and enforcement programs.



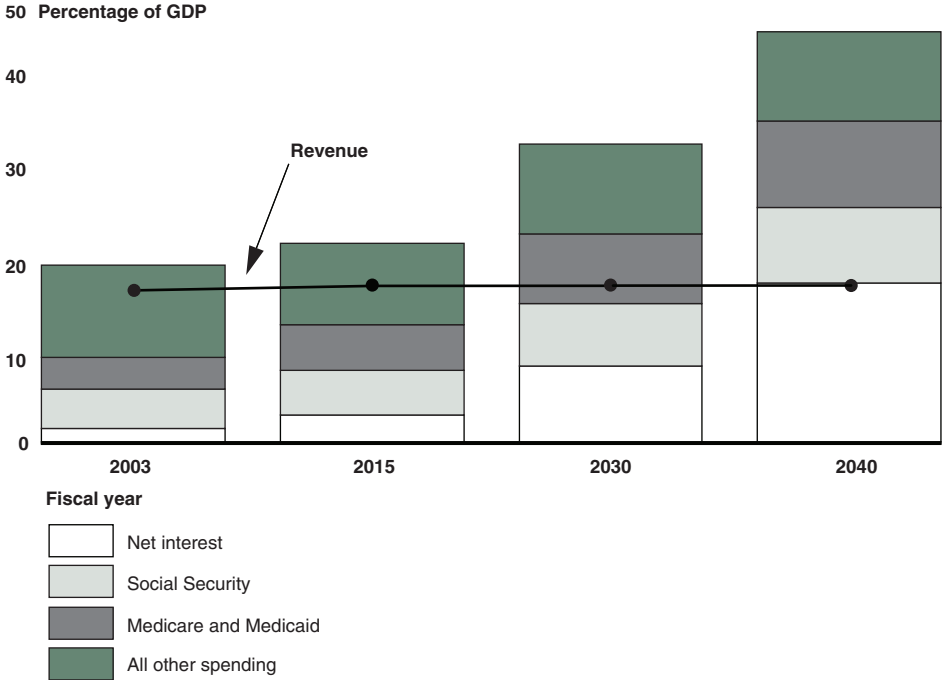
How will the current fiscal policy path affect federal borrowing and budgetary flexibility?

A. While considerable uncertainty surrounds both short- and long-term budget projections, we know two things for certain: the population is aging and the baby boom generation is approaching retirement age. The aging population and rising health care spending will have significant implications not only for the Social Security, Medicare, and Medicaid programs but also for the budget and the economy. The demographic trends facing the nation affect the long-term flexibility and sustainability of the government’s fiscal position. Growth in the debt-to-GDP measure does not necessarily create problems in the short term, but continued growth will further reduce budgetary flexibility going forward and ultimately lead to an unsustainable fiscal path. (See fig. 15 in sec. 3 for future debt-to-GDP shares under alternative fiscal policies.)

Absent policy changes, the growth in spending on federal entitlements for retirees will encumber an escalating share of the government’s resources. Assuming, for example, that recent tax reductions are made permanent and discretionary spending keeps pace with the economy, GAO’s long-term simulations show that by 2040 federal revenues may be adequate to pay little more than interest on the federal debt. (See fig. 22.) Neither slowing the growth in discretionary spending nor allowing the tax provisions to expire—nor both together—would eliminate the imbalance.

Section 5: Current and Future Policy Issues regarding Federal Debt

Figure 22: Composition of Federal Spending as a Share of GDP Assuming Discretionary Spending Grows with GDP after 2004 and That Expiring Tax Provisions Are Extended



Source: GAO's March 2004 analysis.

Notes: Although expiring tax provisions are extended, revenue as a share of GDP increases through 2014 due to (1) real bracket creep, (2) more taxpayers becoming subject to the Alternative Minimum Tax, and (3) increased revenue from tax-deferred retirement accounts. After 2014, revenue as a share of GDP is held constant.

Under this scenario, borrowing to finance these obligations would add substantially to the national debt. Rising debt, in turn, raises spending on interest, which further swells the deficits, resulting in a vicious cycle. Budgetary flexibility is greatly reduced; massive spending cuts, tax increases, or some combination of the two would be necessary to obtain balance. Borrowing to finance these obligations is ultimately unsustainable because borrowing cannot in perpetuity grow at

a greater rate than the economy. At some point the economy will not produce enough resources to allow the government to service the debt. The government can help ease future fiscal burdens through spending reductions or revenue actions that reduce debt held by the public, saving for the future, and enhancing the pool of economic resources available for private investment and long-term growth. Economic growth can help, but we will not be able to simply grow our way out of the problem. Closing the current long-term fiscal gap would require sustained economic growth at levels so high as to be implausible. That is, closing the gap would require sustained economic growth far beyond that experienced in U.S. economic history since World War II. Tough choices are inevitable, and the sooner we act the better.



Does the debt limit provide a way to control the amount we borrow? What are some alternatives to the debt limit?

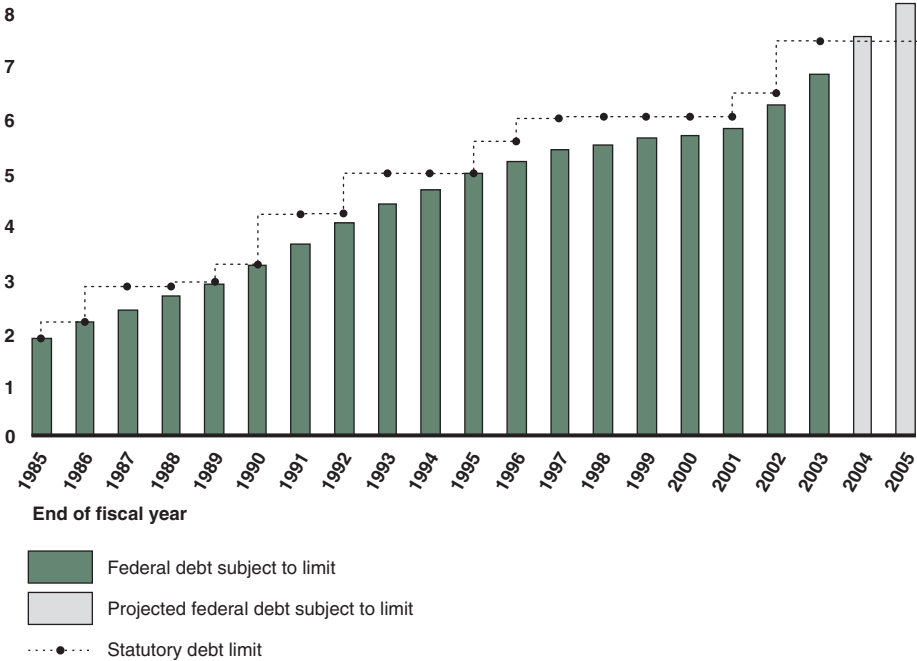
A. The debt limit does not determine federal borrowing needs. These needs result from all of the revenue and spending decisions the government makes as well as the performance of the economy. Whenever the government approaches the debt limit, the Congress and the President must eventually raise the limit to pay the government's bills as they come due. Major increases in the debt limit accompanied budget agreements in 1990, 1993, and 1997. The debt limit was also raised in 1996, 2002, and 2003, each time after debt approached the limit and the Treasury had to use its statutory authorities available to avoid exceeding the limit. (See app. I for GAO work on the debt limit.) CBO's January 2004 budget projections showed that debt will reach the limit of \$7,384 billion during fiscal year 2004. (See fig. 23.) In July 2004, the Treasury estimated the debt limit would be reached in late September or early October 2004. The Office of

Section 5: Current and Future Policy Issues regarding Federal Debt

Management and Budget's July 2004 budget projections show debt subject to the limit will be only \$9 billion below the statutory limit as of September 30, 2004.¹

Figure 23: Federal Debt Compared to Statutory Limit (End of Fiscal Years 1985-2005)

9 Trillions of dollars



Sources: Office of Management and Budget and CBO.

¹ U.S. Office of Management and Budget, *Fiscal Year 2005 Mid-Session Review* (Washington, D.C.: July 2004).

Section 5: Current and Future Policy Issues regarding Federal Debt

Notes: Historical data from U.S. Office of Management and Budget, *Budget of the United States Government for Fiscal Year 2005 – Historical Tables* (Washington, D.C.: February 2004). Projections from U.S. Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2005 to 2014* (Washington, D.C.: January 2004). The debt limit represents a statutory ceiling on the total outstanding amount of most types of federal debt. Generally, debt issued by the Treasury to the public or to government accounts, as well as obligations whose principal and interest are guaranteed by the U.S. government, is subject to the limit. The statutory debt limit is changed through legislation. This figure shows the debt limit at the end of the fiscal year. The limit could be raised multiple times throughout the course of the fiscal year.

Some believe that debate over raising the debt limit may provide an additional opportunity for the Congress and the President to consider the implications of past and future fiscal policy decisions for federal borrowing. However, limiting the Treasury's ability to issue debt securities does not address the broader scope of the government's fiscal policies or exposures, nor does it promote predictability in the markets for Treasury securities when Treasury seeks to borrow but is constrained by the debt limit. (See below for a discussion of the nation's fiscal exposures.) As policymakers explore budget process options, some have suggested replacing the statutory limit on total debt outstanding with a limit on debt held by the public or a limit on federal debt as a share of GDP. Some countries have adopted debt-to-GDP targets to guide fiscal policymaking; however, there is no consensus on the optimal level of government debt as a share of the economy.



Debt is one liability of the federal government. What are other potential ways to look at exposures or implicit commitments of the government?

A. Debt held by the public is the largest explicit liability of the federal government. However, the federal government undertakes a wide range of programs, responsibilities, and activities that may explicitly or implicitly expose it to future spending. These “fiscal exposures”² vary widely as to source, extent of the government’s legal obligation, likelihood of occurrence, and magnitude. Given this variety, it is useful to think of fiscal exposures as a spectrum extending from explicit liabilities to the implicit promises embedded in current policy or public expectations. (See table 2.) For example, the current liability figures for the U.S. government do not include the difference between scheduled and funded benefits in connection with the Social Security and Medicare programs.

² GAO uses the fiscal exposure concept to provide a framework for considering long-term costs and spending uncertainties. U.S. General Accounting Office, *Fiscal Exposures: Improving the Budgetary Focus on Long-Term Costs and Uncertainties*, [GAO-03-213](#) (Washington, D.C.: Jan. 24, 2003).

Section 5: Current and Future Policy Issues regarding Federal Debt

Table 2: Selected Fiscal Exposures: Sources and Examples (End of Fiscal Year 2003)

Dollars in billions	
Type	Example ^a
Explicit liabilities	Publicly held debt (\$3,913) Military and civilian pension and post-retirement health (\$2,857) Veterans benefits payable (\$955) Environmental and disposal liabilities (\$250) Loan guarantees (\$35)
Explicit financial commitments	Undelivered orders (\$596) Long-term leases (\$47)
Financial contingencies	Unadjudicated claims (\$9) Pension Benefit Guaranty Corporation (\$86) Other national insurance programs (\$7) Government corporations, e.g., Ginnie Mae
Exposures implied by current policies or the public's expectations about the role of government	Debt held by government accounts (\$2,859) ^b Future Social Security benefit payments (\$3,699) ^c Future Medicare Part A benefit payments (\$8,236) ^c Future Medicare Part B benefit payments (\$11,416) ^c Future Medicare Part D benefit payments (\$8,119) ^c Life cycle cost, including deferred and future maintenance and operating costs (amount unknown) Government Sponsored Enterprises, e.g., Fannie Mae and Freddie Mac

Source: GAO analysis of data from the Department of the Treasury; the Office of the Chief Actuary, Social Security Administration; and the Office of the Actuary, Centers for Medicare and Medicaid Services.

Notes: This list is illustrative and should not be interpreted as all inclusive or universally agreed upon. Information updated March 30, 2004.

^aAll figures are for end of fiscal year 2003, except Social Security and Medicare estimates, which are end of calendar year 2003.

^bThis amount includes \$774 billion held by military and civilian pension funds that would offset the explicit liabilities reported by those funds.

^cFigures for Social Security and Medicare are net of debt held by the trust funds (\$1,531 billion for Social Security, \$256 billion for Medicare Part A, and \$24 billion for Medicare Part B) and represent net present value estimates over a 75-year period. Over an infinite horizon, the estimate would be \$10.4 trillion for Social Security, \$21.8 trillion for Medicare Part A, \$23.2 trillion for Medicare Part B, and \$16.5 trillion for Medicare Part D.

Fiscal exposures represent significant commitments that ultimately have to be addressed. The burden of paying for these exposures may encumber future budgets and constrain fiscal flexibility. Not capturing the long-term costs of current decisions limits policymakers' ability to control the government's fiscal exposures at the time decisions are made. In addition, the lack of recognition of long-term fiscal

Section 5: Current and Future Policy Issues regarding Federal Debt

exposures may make it difficult for policymakers and the public to adequately understand the government's overall performance and true financial condition. Determining how to improve budgeting for fiscal exposures is complicated by difficulties in (1) determining the scope of items to be considered exposures and (2) estimating their costs. GAO has recommended annual reporting on fiscal exposures and, where possible, reporting the estimated costs for fiscal exposures in the budget.³

The fiscal exposures concept focuses only on items that may expose the government to future spending. In addition to exposures on the spending side of the budget, certain **tax expenditures** may have uncertain or accelerating future growth paths that have significant implications for the long term. Tax and revenue items would need to be considered concurrently with spending exposures in order to assess the nation's long-term fiscal sustainability.

³ For more information, see [GAO-03-213](#).



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APPENDIX II: GLOSSARY

Accrued Interest	(See Interest.)
Bills	(See U.S. Treasury Securities.)
Bonds and Notes	(See U.S. Treasury Securities.)
Baseline	An estimate of spending, revenue, the deficit or surplus, and debt held by the public during a fiscal year under current laws and current policy. For revenues and mandatory spending, the Congressional Budget Office (CBO) projects the baseline under the assumption that present laws continue without change. The baseline projections also reflect anticipated changes in the economy, demographics, and other factors that affect the implementation of these laws. For discretionary spending subject to annual appropriations, CBO is required to adjust the current year's discretionary budget authority to reflect inflation, among other factors.
Benchmark Debt Issue	A benchmark issue is a debt instrument that is large enough and attractive enough that it will be readily bought and sold by participants in the debt market. Governments issue a set of benchmark securities at different maturities to build a yield curve that can be used as a reference point by capital markets and others to price other financial transactions. U.S. Treasury securities are used for this purpose in the United States as well as in international capital markets.
Budget Enforcement Act	Title XIII of the Omnibus Budget Reconciliation Act of 1990. The Budget Enforcement Act modified procedures and definitions for sequestration and deficit reduction, reformed budgetary credit accounting, maintained the off-budget status of the Old-Age Survivors Insurance and Federal Disability Insurance Trust Funds, and removed Social Security trust fund receipts and outlays from deficit and sequestration calculations.
Congressional Budget Office (CBO)	This legislative branch agency's mission is to provide the Congress with objective, timely, nonpartisan analyses needed for economic and budget decisions and with the information and estimates required for the Congressional budget process. CBO is required to develop a cost estimate for virtually every bill reported by congressional committees to show how it would affect spending or revenues over the next 5 years or more. For most tax legislation, CBO uses estimates provided by the Joint Committee on Taxation, a separate congressional analytic group. For CBO's Web site, visit www.cbo.gov .

Appendix II: Glossary

(Continued)

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 (Intragovernmental Debt)	Federal debt owed by the federal government to itself. Most of this debt is held by trust funds, such as Social Security and Medicare.
Gross Debt (Total 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.
U.S. Gross External Debt	Debt owed by U.S. residents to nonresidents.
Debt Limit	A legal ceiling on the amount of gross federal debt (excluding some minor adjustments), which must be raised periodically to accommodate additional federal borrowing.
Debt Subject to Limit	Gross debt less a small amount of debt excluded from the debt limit. Excluded are amounts issued by either the Federal Financing Bank, an arm of the Treasury, or agencies other than the Treasury, 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 (or Total Deficit)	The amount by which the government's on-budget and off-budget outlays exceed the sum of its on-budget and off-budget receipts for a given period, usually a fiscal year.
Federal Funds Deficit	A measure of the deficit that excludes the spending and revenue totals of federal government trust funds, such as Social Security.
Trust Fund Cash Deficit	The amount by which a trust fund's outlays exceed its receipts from the public (excluding intragovernmental transfers) for a given period, such as a fiscal or calendar year.
Trust Fund Total Deficit	The amount by which a trust fund's outlays exceed its total receipts (including receipts from the public and intragovernmental transfers) over a given period, such as a fiscal or calendar year.
Federal Debt	(See Debt.)

Appendix II: Glossary

(Continued)

Federal Fund Accounts	Accounts composed of moneys collected and spent by the federal government other than those designated as trust funds. Federal fund accounts include general, special, public enterprise, and intragovernmental fund accounts.
Federal Funds Rate	Rate charged by a depository institution on an overnight sale of federal funds to another depository institution; rate may vary from day to day and from bank to bank.
Federal Reserve System	The central bank of the United States. It is responsible for the conduct of monetary policy. (See monetary policy.) For the Web site of the Federal Reserve System, visit www.federalreserve.gov .
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. Prior to fiscal year 1977, the federal government began its fiscal year on July 1 and ended it on June 30.
Gross Debt	(See Debt.)
Gross Domestic Product (GDP)	A commonly used measure of domestic national income. GDP is the value of all goods and services produced within the United States in a given year and is conceptually equivalent to incomes earned in production. It is a rough indicator of the economic earnings base from which the government draws its revenues.
Gross Interest	(See Interest.)
Gross National Product (GNP)	The output of all goods and services produced in a given period by labor and capital supplied by residents of a nation, regardless of the location of the labor and capital. The principal difference from GDP is that GNP includes the income that residents earn from investments abroad and excludes the capital income that nonresidents earn from domestic investments.
Inflation	A rise in the general price level.
Interest	The amount that a borrower pays a lender for the use of funds. Two main measures of federal interest spending in the budget are (1) gross interest and (2) net interest. Methods of measuring interest are (1) accrued interest and (2) interest paid.
Gross Interest	Essentially represents interest on all Treasury debt securities, including interest on debt held by the public and interest credited to government trust funds and other government accounts that hold federal debt.

Appendix II: Glossary

(Continued)

Net Interest	Primarily interest 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.
Accrued Interest	Interest that has accumulated on a fixed income security since the last interest payment was made. Notes and bonds pay interest semiannually. When a bond is sold on the secondary market between interest payment dates, the buyer pays the seller the bond's price plus the accrued interest from the last interest payment date up to, but not including the settlement date.
Interest Paid	Payments by the U.S. Treasury to investors for interest earned on U.S. Treasury securities.
Interest Rate	The cost of borrowing or the price paid for the rental of funds (usually expressed as a percentage).
Liability	Assets owed for items received, services received, assets acquired, construction performed (regardless of whether invoices have been received), amounts received but not yet earned, or other expenses incurred.
Accounting Liability	For financial statement reporting, a liability represents a probable and measurable future outflow of resources arising from past transactions or events. A liability is recorded on the face of the balance sheet when an item is identifiable, its occurrence is probable, and its cost can be reasonably estimated.
Legal Liability	A claim that may be legally enforced against the government in a variety of ways, such as by signing a contract, grant, or cooperative agreement, or by operation of law.
Legal Obligation	A definite commitment that creates a legal liability of the government for the payment of goods and services ordered or received.
Liquidity	A liquid debt issue is one that is large enough to be traded at will, and one for which the offer and purchase prices differ only slightly.
Liquidity Premium	The incremental price that market participants are willing to pay for securities that are part of large issues that can be easily traded.
Marketable Securities	(See U.S. Treasury Securities.)

Appendix II: Glossary

(Continued)

Monetary Policy	The use of reserve requirements, discount rates, and purchases and sales of U.S. Treasury securities (open market operations) by the Federal Reserve System (the nation's central bank) to affect the rate of growth of the nation's money supply.
National Saving	National saving is the portion of the nation's income not used for consumption during a given period. Gross national saving includes the saving of all sectors—households, businesses, and government; net national saving is gross national saving less consumption of fixed capital (depreciation).
Nonmarketable Securities	(See U.S. Treasury Securities.)
Net Interest	(See Interest.)
Notes	(See U.S. Treasury Securities.)
Present Value	The amount of cash today that is equivalent in value to a specified cash payment or stream of cash payments to be received in the future.
Savings Bonds	(See U.S. Treasury Securities.)
STRIPS	(See U.S. Treasury Securities.)
Surplus	The amount by which the government's revenues exceed outlays in a given period.
Unified Surplus (or Total Surplus)	The amount by which the government's on-budget and off-budget receipts exceed the sum of its on-budget and off-budget outlays for a given period, usually a fiscal year.
Trust Fund Cash Surplus	The amount by which a trust fund's receipts from the public exceed its outlays for a given period, such as a fiscal or calendar year.
Trust Fund Total Surplus	The amount by which a trust fund's total receipts (including receipts from the public and intragovernmental transfers) exceed its outlays for a given period, such as a fiscal or calendar year.
Tax Expenditure	Revenue losses attributable to a provision of the federal tax laws that allows a special exclusion, exemption, or deduction from gross income or that provides a special credit, preferential tax rate, or deferral of tax liability.
Treasury Inflation-Indexed Securities	(See U.S. Treasury Securities.)

Appendix II: Glossary

(Continued)

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 funds. Examples are the Social Security and Medicare trust funds.
Unified Budget	A comprehensive budget in which receipts and outlays from federal funds and trust funds are consolidated; generally a cash or cash equivalent measure in which receipts are recorded when received and expenditures are recorded when paid, regardless of the accounting period in which the receipts are earned or the costs incurred.
U.S. Treasury Securities	The Treasury issues two major types of debt securities to the public: marketable and nonmarketable securities. Marketable securities, which consist of Treasury bills, notes, and bonds (see below), can be resold by whoever owns them while nonmarketable securities, such as savings securities and special securities for state and local governments, cannot be resold. Marketable securities are auctioned at regular intervals during the year and, at the end of fiscal year 2003, accounted for 88 percent of outstanding federal debt securities held by the public. In addition to the nonmarketable securities issued to the public, the Treasury also issues securities to federal government accounts, primarily trust funds that have the authority or are required to invest excess receipts in special U.S. Treasury securities.
Bills, Notes, and Bonds	<p>Treasury bills (or T-bills) are short-term securities that mature in 1 year or less from their issue date. Investors pay less than the T-bills’ par or face value, and when bills mature they receive the par or face value.</p> <p>Treasury bonds and notes are securities that pay a fixed rate of interest every 6 months until they mature, which is when they pay their par value. The only difference between a note and a bond is their length until maturity. Treasury notes mature in more than 1 year, but not more than 10 years from their issue date. Bonds, on the other hand, mature in more than 10 years from their issue date. Treasury sells two kinds of notes and bonds, fixed-principal and inflation-indexed. Both pay interest twice a year, but the principal value of inflation-indexed securities is adjusted to reflect inflation as measured by the Consumer Price Index. Semiannual interest payments on inflation-indexed securities are based upon the inflation-adjusted principal value of the security.</p>

Appendix II: Glossary

(Continued)

Savings Bonds	Different types of savings bonds are offered by the Treasury and can be purchased for as little as \$25 through TreasuryDirect, savings institutions, or payroll savings plans offered by many employers. Series EE savings bonds have a variable semiannual interest rate. Series I savings bonds have an interest rate based upon a combination of a fixed rate of return and a variable semiannual rate. Both series EE and I savings bonds pay their issue price plus accrued interest when the bonds are redeemed. For more information, visit Treasury's Web site: www.treasurydirect.gov .
STRIPS	STRIPS is the acronym for Separate Trading of Registered Interest and Principal of Securities. When a Treasury security is stripped, the cash flows from the principal and interest components of the security are separated and traded as if each component was a separate security. STRIPS can only be purchased through financial institutions and government securities brokers and dealers.
Treasury Inflation-Indexed Securities	Treasury inflation-indexed securities are also known as Treasury inflation-protected securities. The principal value of these securities is tied to inflation using an index prepared by the Bureau of Labor Statistics. Interest payments and the final payment at maturity are based on this inflation-adjusted principal.
Yield Curve	A graphical description of the current relationship between interest rates and time to maturity, holding other factors (such as credit risk) constant.

APPENDIX III: SCOPE AND METHODOLOGY

This report updates descriptive information about federal debt last presented in GAO's 1999 publication, *Federal Debt: Answers to Frequently Asked Questions—An Update* (GAO/OCG-99-27, May 28, 1999).¹ At the time of that publication, the federal government was running budget surpluses and debt held by the public was projected to drop to historically low levels. This report provides updated budget and economic data to reflect the nation's current fiscal outlook. In addition, this update provides current information on debt management during periods of budget deficits.

Our update addresses questions that are frequently asked about the federal debt, deficits, and surpluses. Specifically, we present current information on (1) the definitions and measures of federal debt, (2) the relationship between the budget and federal debt, (3) the relationship between the economy and federal debt, (4) federal debt management and ownership, and (5) the current and future policy issues regarding federal debt.

This update draws upon our previously issued work on budget issues, federal debt, national saving, and long-term fiscal challenges.² We also reviewed relevant literature and interviewed individuals with specialized expertise from government, nonprofit, and financial service organizations.

Historical data on budget deficits, surpluses, federal debt, and net interest were collected from GAO's financial audit of the Bureau of the Public Debt's (BPD) Schedules of Federal Debt for fiscal year 2003,³ the Office of Management and Budget's (OMB) fiscal year 2005 budget documents,⁴ and the

¹ For previous work, see U.S. General Accounting Office, *Federal Debt: Answers to Frequently Asked Questions*, GAO/AIMD-97-12 (Washington, D.C.: Nov. 27, 1996).

² See app. I. for a list of related GAO products.

³ U.S. General Accounting Office, *Financial Audit: Bureau of the Public Debt's Fiscal Years 2003 and 2002 Schedules of Federal Debt*, GAO-04-177 (Washington, D.C.: Nov. 7, 2003).

⁴ U.S. Office of Management and Budget, *Budget of the United States Government for Fiscal Year 2005 – Analytical Perspectives* (Washington, D.C.: February 2004), and *Budget of the United States Government for Fiscal Year 2005 – Historical Tables* (Washington, D.C.: February 2004).

Appendix III: Scope and Methodology

Department of the Treasury's *2003 Financial Report of the United States Government*.⁵ Budget projections from fiscal year 2004 through fiscal year 2015 were obtained from the CBO's January 2004 10-year baseline of budgetary and economic projections.⁶

Additionally, we analyzed information from Department of the Treasury publications, including the *Monthly Statement of Public Debt*, *Treasury Bulletin*, and *Treasury International Capital System*. We used the Treasury's *Monthly Statement of Public Debt* for historical data on the amount of outstanding Treasury securities. We obtained information on holdings of U.S. Treasury securities for 1993 and 2003 from the *Treasury Bulletin* as well as summary data from the *Treasury International Capital System* (a joint venture between the Federal Reserve Board and the Treasury). The ownership information in these publications is estimated because the Treasury does not track sales among investors, and foreign holding data reflect the country of purchase and not the residence of the owner.⁷

We relied on the Organisation for Economic Co-operation and Development's *Economic Outlook* for international comparisons of historical data on net general government debt and gross national saving.⁸ For selected average interest rates on the federal debt, we used historical data from the Federal Reserve's *Statistical Release H.15*, which reflects yields on

⁵ U.S. Department of the Treasury, *2003 Financial Report of the United States Government* (Washington, D.C.: Feb. 27, 2004). (Period covered is fiscal year 2003.)

⁶ U.S. Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2005–2014* (Washington, D.C.: January 2004).

⁷ For a discussion of the system used to estimate foreign holdings, including methodological limitations, see William L. Grier, Gary A. Lee, and Francis E. Warnock, "The U.S. System for Measuring Cross-Border Investment in Securities: A Primer with a Discussion of Recent Developments," *Federal Reserve Bulletin* (Washington, D.C.: October 2001).

⁸ Organisation for Economic Co-operation and Development, *OECD Economic Outlook No. 74*, vol. 2 (Paris: December 2003).

actively traded issues adjusted to constant maturities.⁹ We used saving data from the National Income and Product Accounts compiled by the Bureau of Economic Analysis to analyze the composition of net national saving.

We used our long-term model to simulate how alternative fiscal policies affect future deficits, debt, and living standards. Long-term simulations provide illustrations—not precise forecasts—of the relative fiscal and economic outcomes associated with alternative policy paths. They are not predictions of what will happen in the future because policymakers would likely take action before the occurrence of the negative out-year fiscal and economic consequences reflected in some simulated fiscal policy paths. However, such simulations can help policymakers assess the long-term consequences of today's fiscal policy choices and simulated fiscal policy paths.

We present two fiscal policy simulations: (1) Baseline Extended and (2) Discretionary Spending Grows with the Economy and all Expiring Tax Provisions are Extended. Baseline Extended follows CBO's 2004 10-year baseline projections, which assume that discretionary spending grows with inflation and tax provisions scheduled to expire will actually do so. After 2014, discretionary spending is assumed to grow with the economy, and revenue is held constant as a share of GDP at the 2014 level of 20.1 percent. Discretionary Spending Grows with the Economy and All Expiring Tax Provisions are Extended follows CBO's January 2004 10-year baseline projections except that discretionary spending grows with the economy after 2004 and all expiring tax provisions are extended. After 2014, revenue is held constant as a share of GDP at the 2014 level of 17.7 percent.

In both simulations after the first 10 years, Social Security and Medicare spending is based on the Trustee's March 2004

⁹ Federal Reserve Board of Governors, "Selected Interest Rates, Historical Data," *Federal Reserve Statistical Release H.15* (Washington D.C.: Feb. 2, 2004), <http://www.federalreserve.gov/releases/h15/data.htm> (downloaded Feb. 4, 2004).

Appendix III: Scope and Methodology

intermediate projections.¹⁰ Medicaid spending is based on CBO's December 2003 long-term projections under Scenario 2 (per enrollee Medicaid spending assumed to grow over the long term with GDP per capita plus 1 percent). The simulation assumes Social Security and Medicare benefits are paid in full after the trust funds are exhausted through borrowing from the general fund to meet any payroll tax shortfall.

We did our work from August 2003 through June 2004 in accordance with generally accepted government auditing standards. We requested agency comments from the Department of the Treasury and technical comments from OMB, CBO, and other subject matter experts. Their comments are incorporated as appropriate.

(450250)

¹⁰ Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, *The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds* (Washington, D.C.: March 2004).

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