The Federal Debt: An Analysis of Movements from World War II to the Present

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Summary

Financing the obligations of the United States has always been a central concern of Congress and the President. If policy decisions and economic conditions lead to levels of government spending which exceed revenue collection, the government will incur debt. Levels of federal debt are reported in terms of debt held by federal government accounts (intragovernmental), and gross (total) federal debt. Debt held by the public is the total amount the federal government has borrowed from the public and remains outstanding. Intragovernmental debt is the amount owed by the federal government to other federal agencies. Gross federal debt is composed of debt held by the public and intragovernmental debt.

Movements in federal debt occur over time. Historical trends can be useful in synthesizing how policy and the economy affect the debt outlook. In most years, debt held by the public has increased on a nominal basis. Nominal measures of debt, however, do not control for inflation. As long as the economy grows faster than the debt, the debt will become less burdensome relative to the economy as a whole. Measuring debt as a percentage of gross domestic product (GDP) controls for effects such as inflation and economic growth, allowing for comparisons over time.

Factors influencing movements in debt levels include spending levels, revenue collections, and economic growth. These factors can lead to changes in debt as a percentage of GDP which cannot always be anticipated. For example, if increases in spending or decreases in tax revenue outweigh strong GDP growth, debt as a percentage of GDP can increase. At other times, increases in tax revenues and declines in spending, in combination with strong economic performance, can lead to declines in debt as a percentage of GDP.

World War II resulted in unprecedented levels of debt as a percentage of GDP as a result of rapidly increasing outlays, which outpaced GDP growth. After the war ended, debt as a percentage of GDP fell in nearly every year over the next three decades as a result of strong economic growth. After that period of strong GDP growth, rapid increases in defense spending and tax cuts during the 1980s resulted in a decade-long trend of rising debt as a percentage of GDP. The early 1990s were characterized by tax increases, a recession, and rising debt as a percentage of GDP. This was followed by several years of budget surpluses and a strong economy, which led to declines in debt as a percentage of GDP in the late 1990s. Currently, tax cuts, increases in spending, and a weak economy have resulted in rising debt levels as a percentage of GDP.

High levels of debt can have a significant impact on the federal budget and the economy over the long term. Though debt levels today do not match historical highs, future levels of debt concern many. CBO projected that a permanent and immediate combination of spending cuts and revenue increases amounting to 6.9% of GDP will be necessary in order to maintain the present level of debt (as a percentage of GDP) 50 years from now. If immediate actions are not taken, the magnitude of changes required in the future would be greater. If large primary deficits (deficits in excess of the net interest payment) persist or if the interest rate on the debt exceeds economic growth indefinitely, it may become harder for the federal government to find investors willing to purchase new debt. This might lead to an inherently unstable situation with regard to the government's ability to incur future debt. This report will be updated as events warrant.

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Congress debates the appropriate level of spending and revenues in every fiscal year through the budget and appropriations process. If resulting policy decisions, along with prevailing economic conditions, lead to levels of government spending which exceed revenue collection, the government will incur a budget deficit.[1] When a deficit occurs, how to finance the resulting debt and the long term implications of rising debt levels becomes a concern for Congress and the President.

The President is required by statute to report essential information about government debt in the annual budget submission to Congress.[2] Data on the levels of federal debt are often reported in three categories: debt held by the public, debt held by federal government accounts (intragovernmental), and gross (total) federal debt.[3] Debt held by the public is the total amount the federal government has borrowed from the public and remains outstanding. This measure is generally considered to be the most relevant in macro-economic terms, because it is the amount of debt sold in credit markets. Typically, changes in debt held by the public closely correspond to each fiscal year's unified budget surplus or deficit.[4] Intragovernmental debt is the amount owed by the federal government to other federal agencies, and to be paid by the Department of the Treasury. This amount largely consists of money contained in trust funds, such as Social Security, that has been invested in federal securities as required by law.[5] Gross federal debt is composed of debt held by the public and intragovernmental debt.

Factors influencing movements in debt include spending levels, revenue collections, and economic growth. In most years, debt held by the public has increased on a nominal basis. Nominal measures of debt, however, do not control for inflation. As long as the economy grows faster than the debt, the debt will become less burdensome relative to the economy as a whole.

Observing historical trends in federal debt levels can illustrate how budget policy and the economy affect the debt outlook and illustrate the reasons why large changes in debt levels occurred. The recent economic slowdown has led to growing concern over increasing debt levels and resulted in questions about the future fiscal health of the country. Ultimately, there are many implications to consider when setting policy initiatives and agendas with regard to federal debt.

This report will define the measures of debt, discuss the reasons why debt levels change, and use historical examples to illustrate the factors causing debt movements over the last seven decades. Recent policies that have affected the budgetary outlook and the debt will also be discussed. Finally, this report will examine the long-term U.S. debt outlook and implications of rising federal debt levels.

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[1] Budget surpluses and deficits are measured in three ways: on-budget, off-budget, and unified. The unified surplus or deficit is the sum of the on-budget and off-budget surpluses or deficits. On-budget surpluses and deficits compose the majority of gross federal debt. The two Social Security Trust Funds (OASI and DI) and the Postal Service are off-budget and are part of intragovernmental debt.

[2] 31 U.S.C. § 1105(a).

[3] The Department of the Treasury also provides daily and monthly reports on debt levels, available at http://fms.treas.gov/. For the purposes of this report, the fiscal year data reported by the Office of Management and Budget will be discussed unless otherwise noted.

[4] In FY2009, debt held by the public increased by $1,742 billion, while the budget deficit was $1,413 billion. The difference was due to the accounting methodology used to record certain new programs in the federal budget. See the section titled "Federal Financial Interventions and Economic Stimulus" later in this report for further explanation.

[5] 31 U.S.C. § 9702.

Federal Debt

In nearly every year since the establishment of the country, the government has accumulated debt.[6] World War II (WWII) represented a new era in debt levels and the role of the United States in the global economy. This peak in debt levels is used as the starting point to show how federal debt levels have changed over the last seven decades.

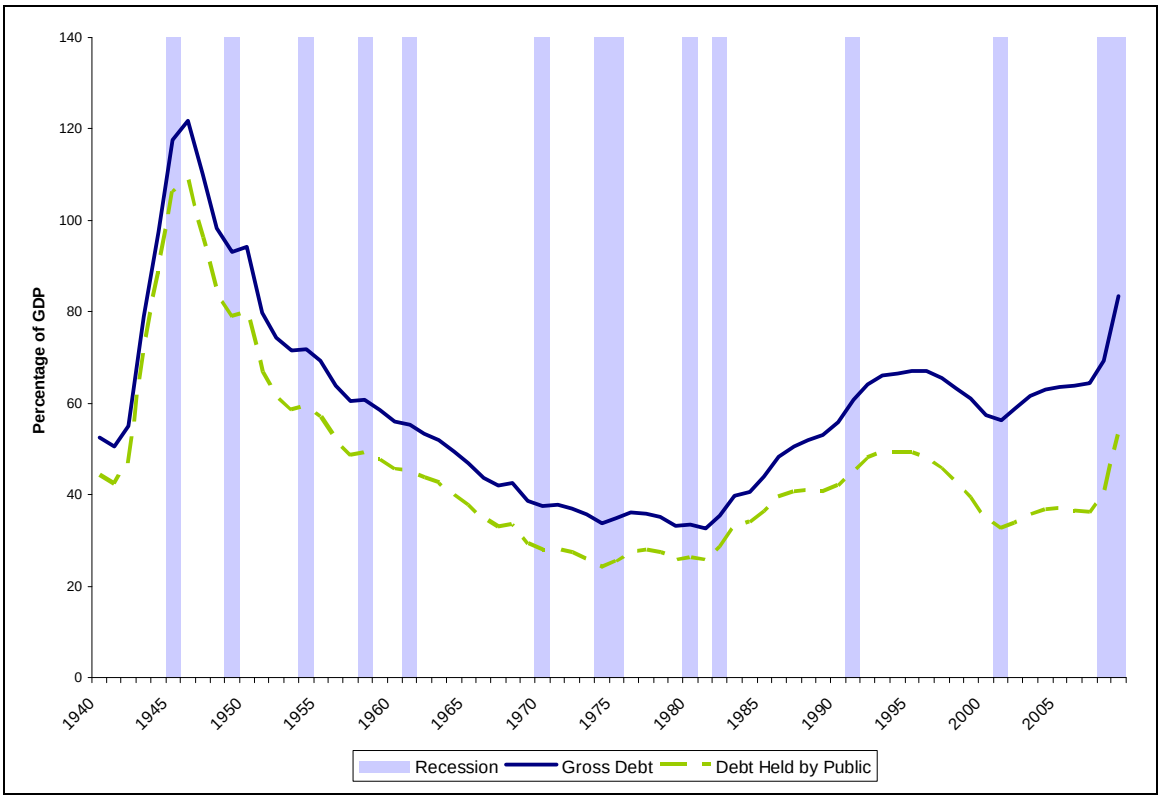
Spending levels (outlays), revenue collections (receipts), and economic growth affect the federal debt. Debt levels increase or decrease due to changes in outlays and receipts, which are influenced by economic conditions, demographic trends, and legislative action. Though movements in debt can be defined in a number of ways, these factors will be used in this report to identify changes in debt levels. In order to make an appropriate comparison over time, outlays, receipts, and debt will be measured as a percentage of gross domestic product (GDP).

Gross debt as a percentage of GDP reached unprecedented levels in the 1940s due to WWII, when the size of the debt exceeded the size of the economy. These levels have not been seen before or since in the United States. After the war ended, federal debt fell in nearly every year, as a percentage of GDP, for the next three decades as a result of strong economic growth during most of the period. After years of declining debt, the trend reversed in the 1980s and debt as a percentage of GDP began rising. This upward trend continued for almost two decades as debt as a percentage of GDP grew to match the levels of the 1950s. Between 1998 and 2001, federal debt as a percentage of GDP began declining once again, as a result of budget surpluses. The federal budget returned to deficit in 2002 and debt as a percentage of GDP also rose. Current projections forecast debt to continue to rise for the foreseeable future. **Figure 1** depicts gross debt and debt held by the public as a percentage of GDP between 1940 and 2009.[7] The gap between the line depicting gross federal debt and debt held by the public represents intragovernmental debt. **Figure 1** also includes recessionary periods marked by shaded bars, in order to provide an illustration of how the economy affected debt movements. This will be discussed in greater detail throughout the report.

[6] In the early years of the country, debt was accrued largely to finance the expenses of wars, smaller skirmishes, and the Louisiana Purchase. Despite nearly paying off gross debt in several fiscal years in the 1830s and 1840s, rapid increases in gross debt levels occurred for the first time in the early 1860s as a result of the Civil War. In nominal terms, debt rose from $90.6 million in 1861 to nearly $2.7 billion by 1865 and marked a new era in government borrowing at that time as debt equaled more than one-half of national income. This debt was issued as needed, with interest rates and maturity periods set by legislation. Paul Studenski and Herman E. Krooss, *Financial History of the United States: Fiscal, Monetary, Banking, Tariff, including Financial Administration and State and Local Finance*, 2nd ed. (New York: McGraw-Hill, 1963), pp. 100, 116, 125, 152.

[7] In this report, all references are to fiscal years unless otherwise specified.

Figure 1. Ebb and Flow of Debt as a Percentage of GDP, 1940-2009



Source: Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 7.1 and The National Bureau of Economic Research, *US Business Cycle Expansions and Contractions*.

Note: Appendix B of this report includes individual fiscal year data corresponding to **Figure 1**.

As a percentage of GDP, gross debt reached its peak in 1946 (121.7%). The minimum level was reached in 1981 (32.5%). In 2009, gross debt as a percentage of GDP reached 83.4% and debt held by the public as a percentage of GDP reached 53.0%. These levels of debt as percentages of GDP had not been seen since 1950 and 1955, respectively.[8] Intragovernmental debt holdings as a percentage of GDP have increased steadily since 1984 as evidenced by the widening gap between the lines depicting gross debt and debt held by the public. This indicates that the amount of money held in the trust funds and other government accounts is increasing. The future implications of this will be discussed towards the end of this report.

Policy and Economic Effects on Federal Debt Levels

Policy decisions and economic conditions affect federal debt. Policy decisions translate into annual spending and revenue levels. Spending and revenue levels are further affected by economic performance. The individual effects of these elements, as well as their interaction effects, will be used to analyze debt movements over the last seven decades.

[8] U.S. Executive Office of the President, Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables*, February 2010, Table 7.1.

Spending

Federal spending is generally divided into the categories of mandatory, discretionary, and net interest. Spending levels are influenced by policy choices and economic conditions. Discretionary spending is provided through annual appropriations acts and is often further divided into defense and non-defense categories. Mandatory spending (e.g., Social Security, Medicare, Medicaid) is controlled by laws other than annual appropriations acts. When first enacted, the portion of the federal budget necessary to pay for mandatory programs was much lower than it is today.[9] As mandatory spending increases, the share of discretionary spending as a percentage of total federal spending has declined.[10] Mandatory spending is projected to continue growing at a rapid rate. Outlays for net interest depend on the level of borrowing and the interest rate.

Mandatory and discretionary spending can be influenced by economic conditions. During economic downturns, expenditures can rise as more people become eligible for mandatory programs such as unemployment insurance and income support programs. These effects, known as "automatic stabilizers," provide a countercyclical fiscal stimulus in the short run without the need for new legislative action. Discretionary spending can also increase if economic downturns lead to federal responses to increase outlays. In the case of both mandatory and discretionary spending, strong economic performance may or may not result in lower outlays in each category, depending on changes in federal policy.

In the absence of other economic or policy changes, increases in spending levels result in larger deficits or smaller surpluses. Deficits will increase debt held by the public and will generally lead to increases in gross debt as a percentage of GDP. Decreases in spending, all else equal, will lead to larger surpluses or smaller deficits, generally resulting in decreases in both gross debt and debt held by the public as a percentage of GDP.

Receipts

Receipt levels, comprised of the broad categories of income, corporate, social insurance, excise, estate and gift, customs, and miscellaneous taxes, also have an impact on the debt. In the absence of other changes, increases in receipts will result in larger surpluses or smaller deficits. Generally, this will lead to declines in debt held by the public and gross debt as a percentage of GDP. The opposite will occur if receipt levels decline.

Economic performance heavily influences receipt levels. During periods of sustained growth, revenue collections through income, corporate, and capital gains taxes will generally be stronger and result in larger collections by the Department of the Treasury in the absence of changes in law. Conversely, economic weakness generally decreases receipts. Individuals may see a decline in their incomes and corporations might experience a decline in profits. In the aggregate, this can cause a decrease in receipts collected.

Policy changes can also influence receipt levels. Tax legislation has led to dramatic changes in receipt levels over time. With all else equal, higher marginal tax rates will lead to increases in

[9] For a more detailed discussion, see CRS Report RL33074, *Mandatory Spending Since 1962*, by (name redacted) and (name redacted).

[10] For a more detailed discussion, see CRS Report RL34424, *Trends in Discretionary Spending*, by (name redacted) and (name redacted).

receipts, leading to larger surpluses or smaller deficits and decreases in both gross debt and debt held by the public as a percentage of GDP. The opposite is true if marginal tax rates decline.

GDP

Strength or weakness in the economy can also affect debt levels. In the absence of changes in spending and receipts, GDP growth allows an economy to absorb higher levels of debt and will generally result in a decrease in the ratios of both the gross debt and debt held by the public, as a percentage of GDP. For example, even though interest payments increase as debt levels rise, strong GDP growth can offset these increases by creating a higher potential tax base, thereby reducing the portion of the budget devoted to paying interest expenses. The opposite would occur if economic growth is weak.

Federal budget data, including debt, are often evaluated using GDP as a base, because it facilitates comparisons over time. During the FY1940 to FY2009 (the period analyzed in this report), GDP growth alone did not necessarily result in the expected movements in debt as a percentage of GDP, showing that other factors influenced changes in debt levels.

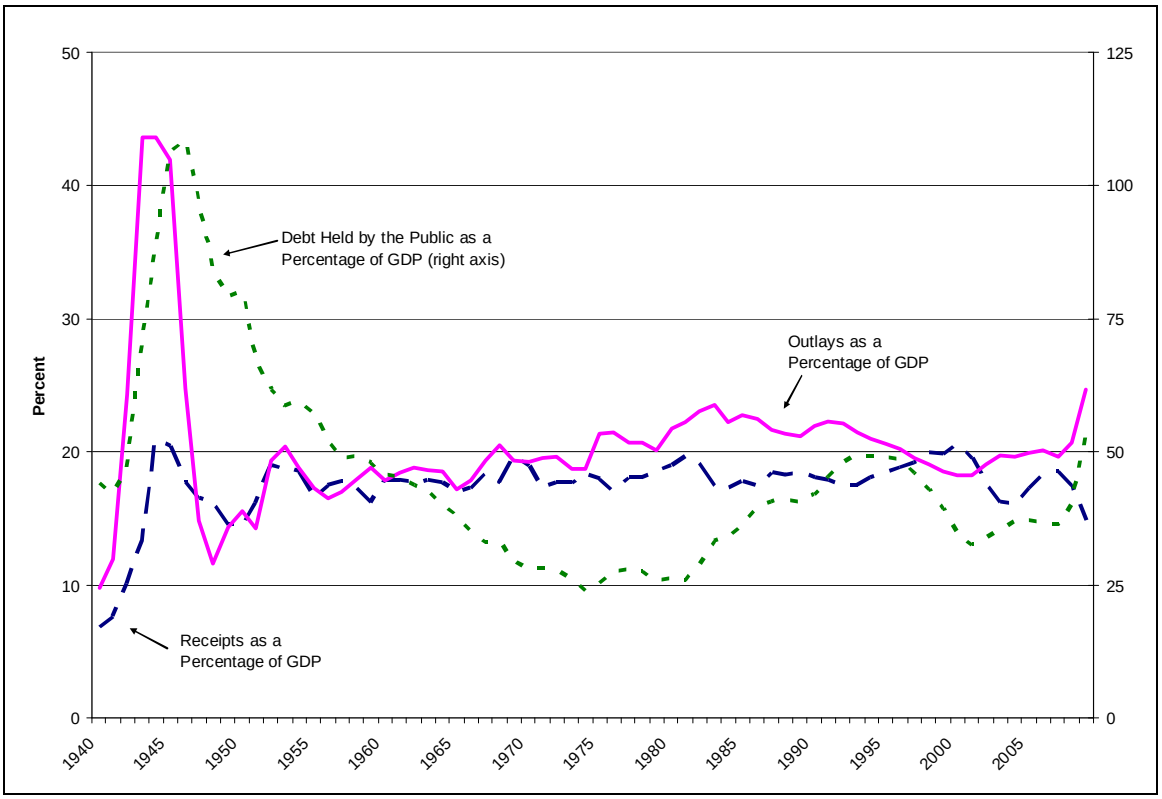
Interaction Effects

Movements in spending, receipts, or GDP can effect the federal debt. Often these changes can occur simultaneously. Economic fluctuations tend to automatically cause short-run changes in the annual deficits. Spending and revenue levels are affected by economic growth, which stimulates employment and individual income, and economic contraction, which reduces consumption and increases reliance on government programs. For example, in a strong economy, new jobs are often created. In response, if the unemployed become employed and earn higher incomes, additional tax revenue will be generated. In contrast, in a weak economy, people may lose their jobs, which could lower tax revenue and increase government expenditures on programs such as unemployment insurance and the Supplemental Nutrition Assistance Program (SNAP; formerly known as "food stamps").

Figure 2 summarizes movements in outlays, receipts, and debt held by the public as a percentage of GDP since 1940. Outlays greatly exceeded receipts during WWII. As the war ended and spending fell, outlays only slightly exceeded receipts for the next several decades, resulting in small budget deficits. Despite these deficits, growth in GDP exceeded the growth in debt levels causing the debt as a percentage of GDP to fall. Starting in the 1980s and continuing to today, outlays have significantly exceeded receipts in most years, resulting in budget deficits and increases in debt held by the public as a percentage of GDP. Between 1998 and 2001, revenues exceeded outlays as a result of spending cuts and strong economic growth, creating a short period of declining debt held by the public as a percentage of GDP. As the economic downturn took hold at the end of 2007, GDP growth and revenues declined, while outlays grew significantly. This led to large increases in debt held by the public. Projections of future growth in debt held by the public as a percentage of GDP, if current policies continue, show continuous increases though 2020 and beyond.[11]

[11] U.S. Congressional Budget Office, *The Budget and Economic Outlook: An Update*, August 2010, Table 1-1 and *The Long-Term Budget Outlook*, June 2010, Figure 1-2.

Figure 2. Receipts and Outlays as a Percentage of GDP, 1940-2009



Source: Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Tables 1.2 and 7.1.

Note: Appendix B includes individual fiscal year data corresponding to **Figure 2**.

Changes in debt as a percentage of GDP are not always predictable. In some instances, increases in spending or decreases in tax revenue outweighed strong GDP growth, causing debt as a percentage of GDP to increase rather than decrease. At other times, a combination of tax revenue increases, spending reductions, and strong economic performance led to declines in debt as a percentage of GDP.

Standardized Budget Data

Another way to assess how policy choices and economic conditions affect the debt is to use standardized budget data calculated by the Congressional Budget Office (CBO). This data series estimates the level of receipts and outlays if the economy fully employed its resources, and is useful in determining the impact of the business cycle and other short-lived cyclical fluctuations on the level of revenues and outlays.[12] The change in standardized data over a specific period provides a rough estimate of the effects of policy changes on receipts, outlays, and the deficit

[12] The Congressional Budget Office eliminates the effects of both business cycle adjustments and short-lived economic fluctuations in the standardized budget figures. Short-lived fluctuations could include changes in capital gains realizations, the effects of changes in inflation on interest payments on the federal debt, and timing changes in federal payments and receipts. These budget estimates are measured as a percentage of potential GDP which quantifies the level of output corresponding to a high level of capital and labor use and therefore do not precisely match the historical budget figures.

because economic and temporary factors have been stripped out. These CBO data will be used throughout this report during discussions of certain historical periods in which the economy and policy decisions appeared to have significantly changed debt trends.

How the Federal Debt Is Financed

The Department of the Treasury, among other roles, manages the country's debt. Treasury's strategy is to finance the government's borrowing needs at the lowest cost over time. Treasury securities, used to finance the federal debt, are sold on a regular and predictable schedule through an auction process with different terms of maturity. These securities are purchased and held by large financial institutions (or primary dealers), the Federal Reserve, individual investors, other dealers and brokers, private pension and retirement funds, insurance companies, investment funds, and foreign investors (private citizens and government entities). In order to decide whether to purchase securities, investors examine price, expected return, and level of risk.[13]

In order for Treasury to sell debt, buyers must have confidence in the value of U.S. currency and the ability of the government to pay back its obligations. If the growth in debt levels exceeds growth in the economy over the long term, an inherently unstable situation will result if investors lose confidence in U.S. debt.[14] If large primary deficits (deficits in excess of the net interest payment) are expected to persist, or if the interest rate on the debt is expected to exceed economic growth indefinitely, then it may become more and more difficult for the federal government to sell new securities. In other words, it may become harder for the federal government to find investors willing to finance its deficits. At worst, private investors might come to doubt the federal government's ability even to meet its interest payments, and would be reluctant, if not completely unwilling, to hold government bonds.

There are two possible outcomes should the federal government be unable to sell its securities. First, the federal government could simply find itself unable to meet its obligations. If this occurs, either spending would have to be cut or taxes increased enough to eliminate the shortfall. Second, the Federal Reserve (Fed) could buy sufficient Treasury securities in order to sustain their marketability.[15] When the Fed buys Treasury securities, it does so with the equivalent of newly issued currency (Federal Reserve notes). This increases the stock of reserves to commercial banks, thus increasing the banks' capacity to lend money and the stock of money in circulation. (The reverse is true if the Fed decides to sell securities from its portfolio.)[16] Having the Fed buy Treasury securities is not without certain economic risks, including the possibility of rapidly accelerating inflation.

[13] For more information, see CRS Report R40767, *How Treasury Issues Debt*, by (name redacted).

[14] Along with economic growth, interest owed on prior borrowings also plays a role in the growth of the debt. Even if the United States stopped accumulating debt today, the interest payments on the debt currently held will continue until the debt is repaid.

[15] Although subject to congressional oversight, the Federal Reserve is independent and under no legal obligation to ensure the sale of government securities. By law (Section 14(b) of the Federal Reserve Act), the Federal Reserve can only buy Treasury securities in the open market. It cannot buy them directly from the Treasury. Should it decide to do so, the threat is no longer one of government insolvency, but rather of inflation.

[16] For more information on the role of the Federal Reserve in the securities market and open market operations, see CRS Report RL30354, *Monetary Policy and the Federal Reserve: Current Policy and Conditions*, by (name redacted).

If a country has a large government debt, there may be temptation to reduce the real value of that debt through inflation. However, higher inflation may lead to higher nominal interest rates causing investors to demand a higher rate of return on Treasury securities in order to protect themselves from a decline in the value of their assets. The independence of the Federal Reserve in setting monetary policy is generally believed to reduce the possibility that inflation will be used to reduce the real value of the federal debt.[17]

Some policy analysts assert that the fiscal situation in the United States is unsustainable and represents a threat to economic stability necessitating significant changes in fiscal policy.[18] Current federal debt appears to be short of the level thought to be associated with this risk though there is no precise way to predict the threshold at which debt may become unsustainable. For the moment, federal debt remains below the level it reached following World War II.

Principal Causes of the Federal Debt's Ebbs and Flows Since WWII

Changes in debt cannot always be anticipated. Some policy choices lead to immediate upward movements in debt. Others, however, are expected to result in larger increases at some point in the future, relative to the time period of enactment. The economy, through its effects on revenues and outlays, has also played a significant role in debt movements. However, the effects of strong or weak GDP growth have not always resulted in predictable movements in debt levels. In some instances, strong GDP growth was outweighed by increases in spending or decreases in tax revenues, causing debt as a percentage of GDP to increase instead of decrease. At other times, a strong economic performance led to declines in debt as a percentage of GDP.

Large debt increases in earlier decades were focused around wars or other defense related activities. This was followed by a long period of steady economic growth, which generally exceeded budget deficits and resulted in declining levels of federal debt as a percentage of GDP. Beginning in the early 1980s and for the better part of two decades, debt as a percentage of GDP rose steadily, largely due to policy choices that increased spending and several recessions. Following a brief period of declining debt as a percentage of GDP in the late 1990s, it has risen again. Most recently, federal financial interventions, used to combat the recession and alleviate financial market instability, heightened concerns about increasing debt levels. Current projections show increasing levels of debt in the future, largely due to high levels of entitlement spending.

Historical examples will illustrate how some of the major changes in debt over the last seven decades have been affected by outlays, receipts, GDP growth, and economic interactions during specific periods. These periods were chosen for one of two reasons: 1) changes in debt held by the public as a percentage of GDP were relatively large or 2) anticipated large changes in debt levels did not materialize due to economic conditions or other factors.

[17] For more information, see CRS Report RL31056, *Economics of Federal Reserve Independence*, by (name redacted).

[18] For more information, see CRS Report RL32747, *The Economic Implications of the Long-Term Federal Budget Outlook*, by (name redacted).

World War II

In December 1941, the U.S. entered WWII. Large war-time spending increases led to unprecedented levels of federal debt as a percentage of GDP. Outlays, as a percentage of GDP, doubled between 1941 and 1942 and nearly doubled again between 1942 and 1943. Between 1940 and 1943, outlays rose from 9.8% to 43.6% of GDP. Total spending remained at the 1943 rate for the next two years and fell quickly in 1946 as the war ended. These increases were almost entirely a result of increases in defense-related spending, which rose from 1.7% of GDP in 1940 to 37.5% of GDP in 1945.[19] By 1947, outlays had essentially returned to their 1941 levels, hovering around 15% of GDP for the next several years. The spending increases and their lasting effects resulted in a doubling of debt held by the public as a percentage of GDP rising from 44.2% in 1940 to 108.7% in 1946. Gross debt nearly equaled or surpassed GDP between 1944 and 1950.[20]

The war-related spending during this period resulted in strong economic growth. Though GDP, in constant terms, rose nearly 50% between 1940 and 1950, the growth was not enough to compensate for the effects of the huge increases in spending. The result was massive surges in debt as a percentage of GDP.[21]

New Entitlements and Vietnam War Spending

After WWII ended, debt as a percentage of GDP fell in nearly every year over the next three decades. Several events highlighted the 1960s, including the Vietnam War and the expansion of healthcare related entitlement programs. Receipts remained relatively constant. At the same time however, debt held by the public as a percentage of GDP was on a downward trend largely due to strong economic performance: GDP grew at an average annual rate of 4.6% during the decade.[22] This indicates that despite an increase in spending over this period, economic growth outweighed the effect of this spending to produce lower levels of debt as a percentage of GDP. In other words, higher levels of spending do not always translate to higher debt as a percentage of GDP. Debt levels can be managed even with increases in spending, as long as other factors outweigh these effects.

In 1965, President Johnson signed into law the Social Security Act Amendments of 1965 (P.L. 89-97), which expanded and created new programs providing health benefits for elderly and poor Americans.[23] These programs, modeled after New Deal era entitlement programs, granted specific monies to people who met certain conditions related to age, income status, or economic

[19] Defense spending during this period reached its peak in 1944 at 37.8% of GDP.

[20] Debt held by the public nearly equaled or surpassed GDP between 1945 and 1947. Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Tables 1.2, 6.1, and 7.1.

[21] Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 10.1.

[22] Between 1941 and 2009, GDP grew at an average annual rate of 3.5%, so the growth rate experienced during the 1960s was noticeably higher than average. CRS calculations based on Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 10.1.

[23] Since its implementation, Medicare has been expanded several times to include additional categories of people (e.g., disabled) and benefits (e.g., prescription drugs). The same law which established Medicare also created Medicaid, which combined several existing welfare programs into one benefit for the poor. For more information, see CRS Report R40425, *Medicare Primer*, coordinated by (name redacted).

circumstance. In addition, the eligibility criteria also include the payment of specific payroll taxes in order to qualify for certain benefits. At the time, these programs did not constitute a large portion of government spending or revenues.

During the first fiscal year that Medicare and Medicaid were both in effect (FY1967) they consumed slightly over 9% of total federal mandatory spending, slightly more than 2% of total outlays, and 0.5% of GDP. Medicare payroll taxes constituted 1.8% of total federal taxes collected, which nearly matched outlays for the entire program. At that time, Social Security (i.e., old age and survivor's benefits and disability benefits under Title 2 of the Social Security Act) consumed 52% of spending on mandatory programs, almost 14% of total outlays, and 3% of GDP. Total spending on mandatory programs in FY1967 was 26% of total outlays and 5% of GDP.[24] Though not a large portion of total outlays at the onset, entitlements have come to alter the debate on the federal debt as more and more people begin drawing on the promised benefits, thereby consuming greater proportions of total outlays.[25]

In addition to these programs that created new government obligations, the country was also engaged in a war in Vietnam. However, this conflict did not generate the same type of spending increases seen during WWII. Defense spending in 1960 equaled 9.3% of GDP, fell to 7.4% of GDP in 1965, before rising again to 8.7% of GDP by 1969.[26] This was largely because the Vietnam conflict was significantly smaller in scale compared to WWII and defense spending had already increased in response to the Cold War.[27]

During the 1960s, outlays averaged 18.6% of GDP with revenues at 17.9%. The strength of the economy resulted in receipts as a percentage of GDP remaining relatively constant during this decade. In 1960 and 1969, there were small budget surpluses. Unlike the previous experience with war, economic expansion translated into strong GDP growth and overwhelmed spending increases. This resulted in a decline in debt held by the public as a percentage of GDP, from 45.6% in 1960 and fell to 29.3% in 1969.

Taming Inflation and Defense Buildup

Debt held by the public as a percentage of GDP fell to its lowest point in the post war era in 1974 at 23.9%. Between 1974 and the end of the decade, it fluctuated slightly and ended the decade at 25.6% of GDP. After thirty years of near constant decline, debt held by the public as a percentage of GDP rose continuously during the 1980s and into the 1990s.[28] Rapid increases in defense

[24] These entitlements have had a greater impact on spending levels and the debt in recent times. In FY2009, Medicare and Medicaid consumed 36% of total mandatory spending and Social Security (OASDI) accounted for 32%. Overall, mandatory spending consumed 60% of total government outlays and 15% of GDP. This means that over the last 40 years, the portion of mandatory spending devoted to Medicare and Medicaid has increased by nearly 30 percentage points, while Social Security's portion has fallen by 20 percentage points. Total federal spending on mandatory outlays as a percentage of GDP nearly tripled over the same period.

[25] U.S. Congress, Congressional Budget Office, *The Budget and Economic Outlook: An Update*, August 2010, p. 20.

[26] Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 6.1.

[27] CRS Report RL31176, *Financing Issues and Economic Effects of American Wars*, by (name redacted) and (name red acted).

[28] Between 1950 to 1980, debt held by the public as a percentage of GDP rose in the following years: 1950, 1954, 1958, 1968, 1971, 1975, 1976, 1977, and 1980. In only two of these years was the increase greater than 1 percentage point (1.4 percentage points between 1974 and 1975 and 2.2 percentage points between 1975 and 1976). Office of (continued...)

spending combined with significant tax cuts enacted in response to recession led to unprecedented increases in the debt during peacetime.

During this period, policy choices led to higher levels of defense spending, while both policy choices and economic conditions resulted in lower revenue levels. Defense spending rose from 4.9% of GDP in 1977 to peak at 6.2% in 1986. Between 1982 to 1989, annual defense spending remained around 6% of GDP.[29] Receipts fell from 19.0% of GDP in 1980 to 17.3% of GDP in 1984 before rising to 18.4% of GDP in 1989.[30]

In addition to the policy choices that resulted in higher levels of spending, economic factors also contributed to the rise in debt held by the public as a percentage of GDP. During the late 1970s and early 1980s, inflation played a major role in revenue collection as a result of a phenomenon known as bracket creep. Because tax brackets were not indexed for inflation, households moved into higher tax brackets as inflation-adjusted incomes rose, even though their real dollar income had not increased. In other words, if incomes increased solely as a result of inflation, households may have found themselves paying higher marginal tax rates. In 1981, Congress passed the Economic Recovery Tax Act (P.L. 97-34), which systematically eliminated this long-term problem for parts of the tax system.[31] During times of high inflation before the 1981 act, bracket creep played a significant role in deficit reduction by increasing receipts solely as a result of the structure of the tax code.

As inflation began to fall in the early 1980s, the country also experienced two recessions, a relatively mild one in 1980 and a more severe one between 1981 and 1982, the deepest and longest in the post-WWII period to that point.[32] High interest rates were largely seen as the cause of the economic downturn. Increases in government spending were enacted during this period to stimulate the economy in an attempt to create growth and incite a recovery.[33] As the country continued to borrow to finance these budget deficits, higher interest costs resulted in higher outlays for net interest payments, which rose from 1.9% of GDP in 1980 to 3.1% of GDP in 1989.

As a result of spending increases, high interest rates, and recessions, the deficit in 1983 reached its highest level as a percentage of GDP since 1946. CBO standardized data can be used to assess the contribution of policy changes and economic conditions on the increases in the deficit. **Table 1** shows the impact of these effects on receipts, outlays, and the budget deficit between FY1980 and 1983. The majority of the effect on both outlays and the overall deficit can be attributed to policy changes, rather than economic conditions, despite the adverse effects of the recessions.

(...continued)

Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 7.1.

[29] Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 8.4.

[30] Receipts hit their lowest level during this period in 1984 at 17.3% of GDP. Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 1.2.

[31] The provisions of the act with regard to bracket creep became effective beginning in 1985. U.S. Department of the Treasury, Office of Tax Analysis, *Revenue Effects of Major Tax Bills*, OTA Working Paper 81, December 1981. However, real bracket creep still exists due to long-term trends of rising real income.

[32] National Bureau of Economic Research, *US Business Cycle Expansions and Contractions*.

[33] U.S. Congress, Congressional Budget Office, *The Outlook for Economic Recovery: A Report to the Senate and House Committees on the Budget - Part I*, February 1983, p. 9.

Table 1. Standardized Budget Totals, 1980-1983

(as a percentage of potential GDP)

	Total Budget		Standardized		FY1980 to FY1983 Percentage Point Change		
	FY1980	FY1983	FY1980	FY1983	Actual	Due to Policy Changes	Due to Economic Conditions
Revenue	18.6%	16.3%	18.6%	17.6%	-2.3%	-1.0%	-1.3%
Outlays	21.3%	22.0%	19.2%	20.8%	0.7%	1.6%	-0.9%
Surplus/Deficit	-2.7%	-5.7%	-0.6%	-3.2%	-3.0%	-2.6%	-0.4%

Source: CRS calculations based on Congressional Budget Office data. U.S. Congress, Congressional Budget Office, *The Cyclically Adjusted and Standardized Budget Measures*, October 2008, Table 3.

Note: Numbers may not add due to rounding. Economic indicators include the effects of the business cycle and inflation on the budget. CBO calculates these measures using potential GDP, the level of output that corresponds to high levels of labor and capital use, because it excludes effects of the business cycle.

As **Table 1** shows, outlays due to policy changes increased more than twice as much during this period compared to actual outlays. As a percentage of potential GDP, actually outlays increased by 0.7%, while standardized outlays increased by 1.6%. The increase in actual outlays was lower than the increase in standardized outlays because of falling inflation. Economic conditions contributed more to the fall in revenues during this period than policy changes, 1.3% of potential GDP versus 1.0%. Overall, the actual deficit increased by 3.0% of potential GDP, with policy changes accounting for 2.6%. In other words, nearly 90% of the increase in the deficit can be attributed to policy changes.

As the budget deficit of 1983 reached the highest level since WWII, Congress and the President began consideration of and enacted several deficit reduction measures over the next few years. One of the most well known was the Balanced Budget and Emergency Deficit Control Act of 1985 (also known as the Balanced Budget Act or Gramm-Rudman-Hollings, Title II of P.L. 99-177). The law attempted to eliminate the deficit by the early 1990s through a process of sequestration, or automatic spending cuts if Congress and the President failed to enact legislation achieving this result. Under sequestration, spending would be automatically cut or cancelled if the estimated deficit exceeded the amount allowed under the act.[34] However, the primary goal of the Balanced Budget Act, to eliminate the deficit by 1990, was unsuccessful. Debt held by the public continued to rise for most of the next decade.

A Decade of Economic Fluctuations

The decade of the 1990s was marked by two distinct periods. The first half included tax increases and a recession, while significant budget surpluses and a strong economy distinguished the later years. Additional deficit reduction measures were enacted in the early part of the 1990s, built upon the efforts of the 1980s.[35] A strong economy, low unemployment, and other factors also

[34] This law was renewed and significantly modified in 1990 and 1997. For more information, see CRS Report 98-721, *Introduction to the Federal Budget Process*, by (name redacted).

[35] For more information, see CRS Report RS22098, *Deficit Impact of Reconciliation Legislation Enacted in 1990, 1993, 1997, and 2006*, by (name redacted).

helped to reduce deficits. During the 1990s, spending cuts, revenue increases, and strong GDP growth, combined with a strong economy and budget process reforms, all contributed to the reductions in the debt held by the public as a percentage of GDP seen at the end of the decade. As a result, beginning in 1998 there were four consecutive years of surpluses, the first period of back-to-back surpluses in four decades. Debt held by the public as a percentage of GDP declined for four successive years for the first time in two decades due to decreases in spending, increases in receipts, strong GDP growth, and the resulting economic interactions throughout this period.[36]

The Budget Enforcement Act of 1990 (BEA, P.L. 101-508) replaced the existing sequestration process under Gramm-Rudman-Hollings with a new process involving deficit targets, discretionary spending limits, and "pay-as-you-go" requirements.[37] However, meeting deficit reduction targets would have required massive cuts to key mandatory and discretionary programs.[38] As a result, the budget resolution for FY1991 (H.Con.Res. 310) agreed to by Congress set deficit reduction at 47% of the BEA target with one-third of the savings coming from revenue increases. As Congress and the President renewed efforts aimed at deficit reduction, tax increases were enacted. Despite the effort to reduce the deficit though tax increases, receipts fell from 18.0% of GDP in 1990 to 17.6% in 1993 largely as a result of the economic slowdown.

Though tax receipts declined in the early 1990s, spending in certain categories also fell. Following the disarmament agreement signed by Ronald Reagan and Mikhail Gorbachev in late 1987 and the fall of the Berlin Wall in 1989, defense spending declined. In 1990, the United States spent 5.2% of GDP on defense. By 1999, that number fell to 3.0%.[39] This decline in defense spending helped to contribute to the budget surpluses and lower debt as a percentage of GDP seen at the end of the decade. However each year between 1990 and 1993, debt held by the public as a percentage of GDP increased, rising from 42.1% to 49.3%.

Between 1994 and 1999, GDP growth ranged from 3% to 5% annually, in real terms. Due to this strong growth and in combination with the tax increases in the Omnibus Budget and Reconciliation Act of 1993 (P.L. 103-66), receipts increased from 17.5% of GDP in 1993 to 19.8% of GDP in 1999.[40] Low rates of unemployment also helped boost the level of receipts as more people had jobs and income, which generated tax revenue. Reliance on certain government programs fell, further decreasing spending. As a result, between 1994 and 1999, debt held by the public as a percentage of GDP fell nearly 10 percentage points from 49.2% to 39.4%.[41]

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[36] In the 1990s, debt held by the public as a percentage of GDP declined during deficit years because GDP grew faster than the debt itself thereby decreasing the ratio. Because of this, declines in the debt-to-GDP ratio are more common historically than budget surpluses.

[37] For more information, see CRS Report RL34300, *Pay-As-You-Go Procedures for Budget Enforcement*, by (name r edacted).

[38] On August 20, 1990, CBO issued initial sequestration reports for FY1991 which estimated the FY1991 deficit at $165.2 billion, $101.2 billion over the deficit target issued in the BEA. Outlays for defense programs would have had to be cut by $50.6 billion (entailing uniform reductions of 41.8%) and outlays for nondefense programs would also have had to be cut by $50.6 billion (entailing $2.1 billion in cuts for programs with automatic spending increases or programs covered by special rules, and $48.5 billion in uniform reductions of 38.0%). The report from CBO was only advisory and the numbers differed slightly from those reported by OMB and ultimately transmitted to Congress.

[39] Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 8.4.

[40] Receipts reached their peak during this period in 1998 at 19.9% of GDP. Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2011, Historical Tables* volume, Table 1.2.

[41] Debt as a percentage of GDP fell further in 2000 and 2001.

The budget surpluses that occurred during this decade surprised many budget analysts. As late as September 1997, CBO projected budget deficits into FY1998 and beyond. The President's budget proposal for FY1998 also predicted a deficit. However, strong economic conditions led to a surprising and unexpected rise in revenues. Combined with a decrease in spending relative to GDP due to legislatively enforced spending cuts and strong economic growth, the annual budget deficits expected from FY1998 through FY2001 became surpluses. The budget surpluses not only helped shrink the size of the national debt as revenues exceeded outlays but also reduced interest payments as a result of decreased levels of borrowing. In 1999, interest spending fell to 2.5% of GDP, the lowest rate in eighteen years.

Economic Downturn and Entitlements[42]

The years of budget surpluses and declining debt, between 1998 and 2001, were replaced by budget deficits and rising debt levels after 2001. Tax cuts and increases in defense and certain entitlement spending, including Medicare Part D, have been the largest contributors to this turn-around. In 2000, debt held by the public as a percentage of GDP was 34.7% of GDP and fell further in 2001 to 32.5% of GDP. Since that time, debt held by the public as a percentage of GDP has been rising. Debt held by the public as a percentage of GDP rose to 37.5% in 2005 and declined slightly in 2006 (37.1%) and 2007 (36.8%).

In 2001 and 2003, tax cuts were passed which caused receipts to fall as a percentage of GDP. In 2000, before the tax cuts were enacted, receipts totaled 20.6% of GDP. By 2004, receipts fell over 4 percentage points to 16.1% of GDP, their lowest level since 1951. Receipts have been rising since that time to reach 18.5% of GDP in 2007. At the same time, federal spending rose from 18.2% of GDP in 2000 to 19.6% of GDP in 2007.[43] The economy also showed signs of weakness. Annual GDP growth averaged 2.6% between 2000 and 2007, down from 3.6% during the surplus years of 1998 to 2001.

Declining revenue and increased federal spending led the country from its peak surplus as a percentage of GDP in FY2000 to deficit. The FY2004 deficit was the largest of the FY2000 to FY2007 period. Using CBO's standardized budget data to separate out the effects of the economy and policy changes on the surpluses/deficits, **Table 2** shows that policy changes between FY2000 and FY2004 had a larger impact on the budget balance than did the economy.

[42] This section will discuss the debt situation between 2000 and 2007. The next section will discuss the recent recession and its implications on the federal debt.

[43] Between 2000 and 2007, federal spending peaked at 20.1% of GDP in 2006.

Table 2. Standardized Budget Totals, 2000-2004

(as a percentage of potential GDP)

					FY2000 to FY2004		
	Total Budget		Standardized		Percentage Point Change		
	FY2000	FY2004	FY2000	FY2004	Actual	Due to Policy Changes	Due to Economic Conditions
Revenue	21.5%	16.2%	19.1%	16.2%	-5.3%	-2.9%	-2.3%
Outlays	19.0%	19.8%	18.2%	18.7%	0.8%	0.5%	0.3%
Surplus/Deficit	2.5%	-3.6%	0.9%	-2.5%	-6.1%	-3.4%	-2.6%

Source: CRS calculations based on Congressional Budget Office data.

Note: Numbers may not add due to rounding. Economic indicators include the effects of the business cycle and inflation on the budget. CBO calculates these measures using potential GDP, the level of output that corresponds to high levels of labor and capital use, because it excludes effects of the business cycle.

Policy changes accounted for the majority of the changes in both revenues, outlays, and the overall budget deficit between 2000 and 2004. As a percentage of potential GDP, revenues fell by 5.3 percentage points during the period, with policy changes accounting for 2.9 percentage points and economic conditions accounting for the remainder. Outlays fell 0.8 percentage points, with policy changes totaling 0.5 percentage points. The actual budget balance declined by 6.1 percentage points, from a surplus of 2.5% of potential GDP in 2000 to a deficit of 3.6% of potential GDP in 2004. Policy changes were responsible for 3.4 percentage points of this change, or roughly 60% of the total change, as a percentage of potential GDP.

Discussion surrounding the increases in debt during this period focused on expenditures in Iraq, Afghanistan, and other anti-terrorism measures, and deteriorating economic conditions. Though defense spending has grown as a percentage of GDP since 2000, it remains lower than the average share of GDP devoted to this spending since 1962. It is generally assumed that expenditures related to these programs will continue at some rate into the future leaving the level of related long-term defense spending and its impact on the federal debt somewhat uncertain.

In addition to these increases in defense spending, the largest mandatory spending programs have grown significantly during the last decade. In 2000, spending on Medicare, Medicaid, and Social Security equaled 7.3% of GDP. In 2007, this number rose to 8.2% of GDP representing nearly a one percentage point increase in just seven years.[44] The long-term consequences on future debt as a result of these mandatory programs may also be great cause for concern as the population ages.

[44] Medicare Part D, created by P.L. 108-173 on January 1, 2006, has contributed to some of this increase. In calendar year (CY) 2007, Part D expenditures amounted to 0.37% of GDP. Total Medicare expenditures rose from 2.28% of GDP in CY2000 to 3.18% of GDP in CY2007. Therefore, between 2000 and 2007, total Medicare expenditures rose 0.90% of GDP, with the creation of Part D accounting for approximately one-third of this increase. Medicare contributed nearly all of the total increase in spending on Social Security, Medicare, and Medicaid between 2000 and 2007. For data on Medicare expenditures, see U.S. Centers for Medicare and Medicaid Services, *2008 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, available at http://www.cms.hhs.gov/reportstrustfunds/downloads/tr2008.pdf.

Federal Financial Interventions and Economic Stimulus

Recent actions to stabilize the financial markets and respond to economic weakness led to significant increases in federal debt levels. Major legislation enacted in 2008 and 2009 in response to these events included the Housing and Economic Recovery Act of 2008 (HERA; P.L. 110-289) and the resulting federal conservatorship of Fannie Mae and Freddie Mac, the creation of the Troubled Asset Relief Program (TARP) in the Emergency Economic Stabilization Act of 2008 (EESA; Division A of P.L. 110-343), and the American Recovery and Reinvestment Act (ARRA; P.L. 111-5), as well as numerous smaller actions. Government agencies, like the Federal Reserve and Federal Deposit Insurance Corporation, used existing statutory powers to provide additional stability.[45] Spending in existing government programs, such as unemployment insurance and the Supplemental Nutrition Assistance Program, also increased as a result of the economic downturn.

The legislation enacted during this period either increased spending, reduced revenues, or both, leading to changes in debt held by the public. The recession, which began in December 2007, also led to increases in spending and reductions in revenue levels. Between 2007 and 2009, debt held by the public as a percentage of GDP rose from 36.2% of GDP to 53.0% of GDP. It is expected to rise further in 2010, to 61.6% of GDP.[46] These increases in debt held by the public as a percentage of GDP are projected to remain an issue barring future policy changes.

As a result of legislative actions, the debt held by the public increased significantly between 2008 and 2009. Due to the uncertainty surrounding the effects of the government's financial market interventions on the economy, it is difficult to fully disaggregate the effects of factors other than the business cycle (i.e., short lived fluctuations in income and outlays) in order to calculate the impact of recent policy on the budget. The effects of the economic downturn on the budget are easier to determine and are shown in **Table 3**.[47] Between 2007 and 2009, the effects of the business cycle resulted in an increase in the deficit of 1.8 percentage points relative to what the deficit would have been had the economy been performing at full capacity.

Table 3. Cyclically Adjusted Budget Totals, 2007-2009

(as a percentage of potential GDP)

	Total Budget		Cyclically Adjusted		FY2007 to FY2009	
	FY2007	FY2009	FY2007	FY2009	Actual	Percentage Point Change Due to Economic Conditions
Revenue	18.4%	13.9%	18.5%	15.3%	-4.6%	-1.4%
Outlays	19.6%	23.2%	19.6%	22.8%	3.6%	0.4%
Surplus/Deficit	-1.2%	-9.3%	-1.2%	-7.5%	-8.2%	-1.8%

[45] For more information see CRS Report R41073, *Government Interventions in Response to Financial Turmoil*, by (name redacted) and (name redacted).

[46] U.S. Congress, Congressional Budget Office, *The Budget and Economic Outlook: An Update*, August 2010, Table 1-1.

[47] For more information, see U.S. Congress, Congressional Budget Office, *Measuring the Effects of Automatic Stabilizers on the Federal Budget*, May 2010.

Source: CRS calculations based on Congressional Budget Office data.

Notes: Numbers may not add due to rounding. Economic indicators include the effects of the business cycle and inflation on the budget. CBO calculates these measures using potential GDP, the level of output that corresponds to high levels of labor and capital use, because it excludes effects of the business cycle.

The actual budget balance declined by 8.2 percentage points, from 1.2% of potential GDP in 2007 to 9.3% of potential GDP in 2009. The economy was responsible for 2.1 percentage points of this change. In general, economic changes in the budget deficit, which are caused by the business cycle, are likely to prove temporary rather than long lasting. The effect on the federal debt, however, may persist into the future as interest is paid on the borrowing to finance the deficit continues even after the downturn is over.

Because of the unprecedented nature of the federal government's actions during the financial crisis, the ultimate effect on the federal debt is hard to determine. Though debt held by the public usually tracks the increases in the budget deficit, the accounting methods used to record certain expenditures in the federal budget are different from the actual level of borrowing that the government incurred. For example, asset purchases made under TARP authority are expected to have some value in the future and are expected to be sold by the government. As stipulated by EESA, accounting for the budgetary impact of TARP must be conducted under procedures outlined in the Federal Credit Reform Act of 1990, with an adjustment for market risk. In other words, for budgetary accounting purposes, CBO calculates the subsidy costs for the TARP program by subtracting the purchase cost from the estimated market value of the acquired assets, discounted at a rate reflecting market risk. This results in increases in debt held by the public in the amount of the asset purchase, while increases in the budget deficit equal the subsidy cost. Once the asset is sold, the public debt will fall by the sale price, but that year's budget deficit would not be affected.

Calculations made by CBO and OMB of the costs for both TARP and Fannie Mae and Freddie Mac assistance differ. While both CBO and OMB have recorded TARP purchases in the budget on a subsidy basis, their estimates of the cost differ. Over the 2009-2019 period, CBO estimates the net present value of TARP outlays at $109 billion, while OMB puts the estimate at $127 billion.[48] As of April 2010, actual outlays as a result of TARP, or increases in the debt held by the public, total $381.8 billion. Differences in the accounting for Fannie Mae and Freddie Mac are more significant. CBO believes that the conservatorship of these entities means that they should be considered part of the government and therefore reflected in the federal budget. CBO began recording these costs on a net cash flow basis. OMB, however, records only the cash outlays made to these entities without accounting for market risk. CBO recorded a subsidy cost of $291 billion in 2009, which does not correspond to the change in the debt held by the public. OMB recorded $95.6 billion in cash outlays and an analogous increase in debt held by the public of the same amount in 2009. OMB estimates an additional $65 billion in cash outlays over the 2010-2019 period.[49]

[48] U.S. Congress, Congressional Budget Office, *Report on the Troubled Asset Relief Program—March 2010*, March 2010, Table 1.

[49] At the end of the fiscal year, CBO uses the figures recorded by OMB for budgetary purposes. For more information on these accounting methodologies, see U.S. Congress, Congressional Budget Office, *CBO's Budgetary Treatment of Fannie Mae and Freddie Mac*, January 2010, available at http://www.cbo.gov/ftpdocs/108xx/doc10878/01-13-FannieFreddie.pdf and U.S. Office of Management and Budget, *The Budget for Fiscal Year 2011, Analytical Perspectives*, pp. 346-358, available at http://www.whitehouse.gov/omb/budget/fy2011/assets/topics.pdf.

How Intragovernmental Debt Affects Gross Debt

Changes in the gross debt do not always track closely with budget surpluses or deficits because gross debt includes debt held by the public and intragovernmental debt. Intragovernmental debt is the amount owed by the federal government to other federal agencies, to be paid by the Department of the Treasury. Intragovernmental debt, required by law to be held in the form of Treasury securities, consists, in large part, of money contained in trust funds. The largest of these trust funds include the Social Security, Medicare, and the Civil Service Retirement and Disability Trust Funds.[50]

Why is it important to examine this measure of debt? When the trust funds run surpluses, they receive IOUs in the form of Treasury securities, as required by law. These surplus funds are then used to finance other government spending. In 1983, major reforms to the Social Security program were recommended by the Greenspan Commission to stave off impending Trust Fund insolvency. These reforms led to increases in payroll tax collections, among other changes.[51] Since these changes were made, the level of surplus in the Social Security Trust Fund has been rising and the Treasury has been borrowing from it to finance other types of spending, thereby increasing intragovernmental debt. In 1982, intragovernmental debt as a percentage of GDP reached its lowest level, at 6.6% of GDP. Since that time, intragovernmental debt has been rising and totaled 30.4% of GDP in 2009.

Increases in gross debt as a percentage of GDP as a result of intragovernmental debt are a significant concern over the long run. When the trust funds begin to owe more in benefits than what they collect in payroll taxes, they will eventually begin to redeem Treasury securities in order to pay the benefits owed.[52] This will result in additional strains on the budget as money from general revenues will be needed to fund these benefits or Treasury will have to borrow additional debt from the public. In addition, the funds from the trust fund surpluses currently being used by the government to fund other programs will no longer be available, putting strain on the funding for these programs.

Long-Term Effects of Federal Borrowing

Over the long-term, high levels of debt can have a significant impact on future federal spending and revenue decisions and the economy. In order to keep high debt levels from causing substantial harm to the economy, spending cuts, tax increases, or both, will be necessary. High interest rates, lower rates of domestic investment, and a larger trade deficit could also affect the

[50] Balances in the trust funds are equal to the amount of tax paid (e.g., payroll taxes) that exceed programmatic benefits paid.

[51] U.S. Social Security Administration, *Report of the National Commission on Social Security Reform*, available at http://www.ssa.gov/history/reports/gspan.html.

[52] Starting this fiscal year, however, Social Security will likely operate with a cash flow deficit (i.e., income excluding interest will be less than outlays). CBO projects that Social Security will operate with cash flow deficits in FY2010 through FY2013 and again in FY2016 through FY2020. When Social Security operates with a cash flow deficit, the program cashes in more federal government securities than the amount of current Social Security tax revenues. When total trust fund income (income including interest) is taken into account, CBO projects that Social Security will have a surplus in each fiscal year from 2010 to 2020. For more information, see CRS Report R41188, *Social Security: Recent Trust Fund Projections by the Board of Trustees and CBO*, by (name redacted).

economy if debt levels remain elevated. Long terms projections of debt held by the public show it rising from 53.0% of GDP in 2009 to 90% of GDP by 2020 under the President's FY2011 budget. By 2035 this level could rise to 185% of GDP, under certain policy conditions – a level which would likely have severe effects on the economy.[53]

CBO calculates a measure called the fiscal gap in order to quantify the reductions in spending and revenues necessary to maintain the same level of debt at the end of a given period as at the beginning. Under current policy, significant increases in debt held by the public are projected, largely due to increased spending for certain mandatory programs. In June 2010, CBO projected that a *permanent and immediate* combination of spending cuts and revenue increases amounting to 6.9% of GDP will be necessary in order to *maintain* the present level of debt (as a percentage of GDP) 50 years from now.[54] This amount is significant because outlays and revenues have each historically amounted to about 20% of GDP. Enacting this change amounts to roughly a one-third cut in spending or a one-third increase in revenue collection or some combination of spending cuts and tax increases in order to maintain the current debt to GDP ratio. If prompt actions are not taken, the magnitude of changes required in the future would be greater.

In addition to the impact on federal spending and revenue collection, high levels of debt could also reduce domestic investment. When the economy is weak, deficit spending (and analogous increases in federal debt levels) may be used to stimulate demand and raise output. Eventually, however, as the economy recovers and credit markets tighten, high levels of federal government borrowing can push up interest rates. High interest rates on government borrowing will also affect interest rates on private investment since movements between the two are linked. Interest rates that are elevated increase the costs of financing new investment in plant and equipment and may cause businesses to shift away from investment and towards consumption. Lower levels of investment may ultimately diminish economic output in the long run.

Over the longer run, as the amount of foreign holdings of U.S. assets increases, a greater share of U.S. income will flow abroad in the form of interest, dividend, and rent payments. While this outflow does not necessarily mean a decline in U.S. living standards, it may mean that future living standards will not be as high as they would have been if a greater share of domestic investment had been financed by borrowing at home instead of abroad.

The higher interest rates may also have an effect on the trade balance.[55] Because of the increased domestic borrowing associated with the rising federal debt, firms that sell a significant share of their production abroad and those that compete directly with foreign firms selling in the United States, experience a drop in the demand for their goods and services. This is due to the effect of higher interest rates on dollar-denominated assets, which eventually lead to an increased demand for dollars and a higher price of the dollar relative to other currencies, other things being equal. Higher interest rates make dollar-denominated assets more attractive to foreign investors due to the relatively high rates of return. Foreign investors, in order to buy the higher yielding U.S. securities, must first buy dollars with which to pay for them, thereby pushing up the price of the dollar in terms of other currencies.

[53] U.S. Congress, Congressional Budget Office, *The Long-Term Budget Outlook*, June 2010, Table 1-2 and *An Analysis of the President's Budgetary Proposals for Fiscal Year 2011*, March 2010, Table 1-1.

[54] U.S. Congress, Congressional Budget Office, *The Long-Term Budget Outlook*, June 2010, Table 1-3.

[55] The trade deficit can increase with through a rise in imports, a drop in exports, or both.

The resulting increase in the exchange value of the dollar has two mutually reinforcing effects on the trade deficit. First, the relative price of imports falls because it takes fewer dollars to bring the same quantity of goods and services into the U.S. from abroad. Lower prices for imported goods means, other things being equal, that U.S. consumers buy more goods and services produced abroad. This results in an increase in imports. Second, the relative price of U.S.-produced goods and services rises for foreigners because the amount of foreign currency required to buy a given quantity of U.S. exports rises. Because U.S. exports are more expensive, they tend to decline. In other words, as imports increase and exports decline, the trade deficit becomes larger.

Considerations for Congress

Annual policy decisions on spending and revenue affect debt levels. Spending and revenues are also influenced by economic growth and GDP. As it has over the past decades, the United States will continue to face fiscal challenges. Balancing the budget and controlling the growth of debt would require less spending, increases in revenue collections, faster than average economic growth, or a combination of these things. Taking no action to reduce the projected growth in the debt may potentially lead to insolvency at some time in the future.

Appendix A. Government Debt in Other Industrialized Countries

The United States is not the only country whose central government has issued a significant amount of debt. As the figures in **Table A-1** indicate, the United States is far from having the largest government debt. Of the countries shown, seven had a higher gross debt-to-GDP ratio in 2009 than the United States.

However, high debt levels are already causing problems. Several of the countries shown in **Table A-1** are facing significant debt crises which either led to significant increases in government debt or can be attributed, in part, to high levels of government debt. Iceland's banking system collapsed as a result of the global financial crisis. As a result, the country's Treasury was forced to intervene to stabilize the banking sector. In Greece, large levels of external debt and attempts to obscure true deficit figures created concern over whether or not Greece would be able to borrow sufficient funds to cover maturing debt and interest payments in 2010. This led to negative shifts in investor confidence and concerns that the crisis may spread to other European countries and the U.S. given the highly integrated nature of the world's financial system.[56]

Table A-1. Gross General Government Debt of OECD Countries in Selected Years

(% of GDP)

Country	2000	2009
Australia	25.4	15.9
Austria	71.1	72.9
Belgium	113.8	101.2
Canada	82.1	82.8
Czech Republic	—	46.5
Denmark	57.1	45.3
Finland	52.3	43.7
France	65.6	84.5
Germany	60.4	77.4
Greece	114.9	114.9
Hungary	60.9	85.2
Iceland	72.9	117.6
Ireland	40.2	65.8
Italy	121.0	123.6
Japan	135.4	189.3

[56] For more information on these crises, see CRS Report RS22988, *Iceland's Financial Crisis*, by (name redacted), CRS Report R41167, *Greece's Debt Crisis: Overview, Policy Responses, and Implications*, coordinated by (name redacted), CRS Report R40415, *The Financial Crisis: Impact on and Response by The European Union*, by (name redacted), and CRS Report R41239, *Frequently Asked Questions about IMF Involvement in the Eurozone Debt Crisis*, coordinated by (name redacted).

Country	2000	2009
Korea	15.7	33.2
Luxembourg	9.2	18.2
Netherlands	63.9	71.4
New Zealand	37.4	27.0
Norway	34.2	59.9
Portugal	62.0	83.8
Slovak Republic	57.5	36.7
Spain	66.5	59.3
Sweden	64.7	52.7
Switzerland	52.5	44.4
United Kingdom	45.1	71.0
United States	54.4	83.9

Source: Organisation for Economic Co-operation and Development, *OECD Economic Outlook*, No. 86, November 2009, Annex Table 32.

Note: Gross debt data are not always comparable across countries due to different definitions or treatment of debt components.—indicates that data was not available. See Source table for additional notes.

Appendix B. Budget and Debt Figures, 1940-2009

Fiscal Year	Gross Debt as a % of GDP	Debt Held by the Public as a % of GDP	Intragovern-mental Holdings as a % of GDP	Outlays as a % of GDP	Receipts as a % of GDP	Real GDP Growth (%)
1940	52.4	44.2	8.2	9.8	6.8	4.1
1941	50.4	42.3	8.2	12.0	7.6	13.6
1942	54.9	47.0	7.9	24.3	10.1	17.9
1943	79.1	70.9	8.3	43.6	13.3	16.9
1944	97.6	88.3	9.2	43.6	20.9	11.6
1945	117.5	106.2	11.3	41.9	20.4	3.2
1946	121.7	108.7	13.1	24.8	17.7	-6.1
1947	110.3	96.2	14.1	14.8	16.5	-5.0
1948	98.2	84.3	13.9	11.6	16.2	0.5
1949	93.1	79.0	14.1	14.3	14.5	2.3
1950	94.1	80.2	13.9	15.6	14.4	2.3
1951	79.7	66.9	12.8	14.2	16.1	11.3
1952	74.3	61.6	12.7	19.4	19.0	4.7
1953	71.4	58.6	12.8	20.4	18.7	4.9
1954	71.8	59.5	12.3	18.8	18.5	0.0
1955	69.3	57.2	12.1	17.3	16.5	4.2
1956	63.9	52.0	11.8	16.5	17.5	5.1
1957	60.4	48.6	11.7	17.0	17.7	1.8
1958	60.8	49.2	11.6	17.9	17.3	-1.0
1959	58.6	47.9	10.8	18.8	16.2	5.0
1960	56.0	45.6	10.3	17.8	17.8	4.5
1961	55.2	45.0	10.2	18.4	17.8	0.7
1962	53.4	43.7	9.7	18.8	17.6	6.0
1963	51.8	42.4	9.4	18.6	17.8	4.2
1964	49.3	40.0	9.2	18.5	17.6	5.8
1965	46.9	37.9	9.0	17.2	17.0	5.3
1966	43.5	34.9	8.6	17.8	17.3	7.7
1967	42.0	32.9	9.1	19.4	18.4	3.9
1968	42.5	33.3	9.1	20.5	17.6	3.6
1969	38.6	29.3	9.2	19.4	19.7	4.4
1970	37.6	28.0	9.6	19.3	19.0	1.4
1971	37.8	28.1	9.7	19.5	17.3	1.6
1972	37.1	27.4	9.7	19.6	17.6	4.0
1973	35.6	26.0	9.6	18.7	17.6	6.7

Fiscal Year	Gross Debt as a % of GDP	Debt Held by the Public as a % of GDP	Intragovern-mental Holdings as a % of GDP	Outlays as a % of GDP	Receipts as a % of GDP	Real GDP Growth (%)
1974	33.6	23.9	9.7	18.7	18.3	2.4
1975	34.7	25.3	9.4	21.3	17.9	-1.8
1976	36.2	27.5	8.7	21.4	17.1	3.9
1977	35.8	27.8	8.0	20.7	18.0	5.6
1978	35.0	27.4	7.6	20.7	18.0	5.3
1979	33.2	25.6	7.6	20.1	18.5	4.4
1980	33.4	26.1	7.2	21.7	19.0	0.1
1981	32.5	25.8	6.7	22.2	19.6	2.1
1982	35.3	28.7	6.6	23.1	19.2	-1.3
1983	39.9	33.1	6.8	23.5	17.5	2.2
1984	40.7	34.0	6.7	22.2	17.3	7.8
1985	43.8	36.4	7.5	22.8	17.7	4.5
1986	48.2	39.5	8.6	22.5	17.5	3.8
1987	50.4	40.6	9.8	21.6	18.4	2.9
1988	51.9	41.0	11.0	21.3	18.2	4.3
1989	53.1	40.6	12.5	21.2	18.4	3.8
1990	55.9	42.1	13.9	21.9	18.0	2.4
1991	60.7	45.3	15.3	22.3	17.8	-0.4
1992	64.1	48.1	16.1	22.1	17.5	2.6
1993	66.1	49.3	16.7	21.4	17.5	3.2
1994	66.6	49.2	17.3	21.0	18.0	3.7
1995	67.0	49.1	17.9	20.6	18.4	3.0
1996	67.1	48.4	18.8	20.2	18.8	3.1
1997	65.4	45.9	19.4	19.5	19.2	4.5
1998	63.2	43.0	20.3	19.1	19.9	4.2
1999	60.9	39.4	21.4	18.5	19.8	4.9
2000	57.3	34.7	22.6	18.2	20.6	4.6
2001	56.4	32.5	24.0	18.2	19.5	1.7
2002	58.8	33.6	25.2	19.1	17.6	1.4
2003	61.6	35.6	25.9	19.7	16.2	2.0
2004	62.9	36.8	26.2	19.6	16.1	3.8
2005	63.5	36.9	26.6	19.9	17.3	3.1
2006	63.9	36.5	27.4	20.1	18.2	2.7
2007	64.4	36.2	28.2	19.6	18.5	2.1
2008	69.2	40.2	29.0	20.7	17.5	1.6
2009	83.4	53.0	30.4	24.7	14.8	-2.9

Source: Office of Management and Budget, *FY2011 Historical Tables*, Tables 1.2, 7.1, and 10.1.

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Acknowledgments

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