

An hourglass-shaped graphic with a globe in the top bulb and another globe in the bottom bulb. The hourglass is light blue and has a dark blue cap at the top. The globe in the top bulb is dark blue, while the globe in the bottom bulb is light blue. The text is centered within the hourglass.

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*Ebbs and Flows of Federal Debt*

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October 20, 2008

**Abstract.** This report will define the measures of debt, discuss the mechanisms of how debt levels change, and use historical examples to illustrate the factors causing debt movements over the last seven decades. In addition, some policies which may affect the future budgetary outlook and the debt will be discussed.

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# CRS Report for Congress

## Ebbs and Flows of Federal Debt

**October 20, 2008**

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**Prepared for Members and  
Committees of Congress**

# Ebbs and Flows of Federal Debt

## Summary

Financing the obligations of the United States has always been a central concern of Congress and the President. Levels of government spending and revenue collection are a focus of congressional debate in every fiscal year. Policy decisions and economic growth also play a large role in influencing federal debt levels over time. Historical trends can help illustrate the reasons behind large movements in debt levels. Understanding ebbs and flows of federal debt levels can be useful in synthesizing how budget policy affects the debt outlook.

Federal debt can be defined and reported in a number of ways. In the President's budget submission to Congress, information is presented on the federal surplus or deficit, gross (total) federal debt, debt held by federal government accounts (intragovernmental), and debt held by the public. In most years, debt held by the public has increased on a nominal basis. However, in order to compare the size of debt to the size of the economy over time, debt held by the public will be measured in this report as a percentage of gross domestic product (GDP) to control for effects such as inflation and economic growth.

A variety of factors, including spending levels (outlays), revenue collections (receipts), and economic growth, affect movements in the levels of federal debt. These factors are used in this report to identify changes in debt levels. Movements in debt cannot always be anticipated. Policy decisions that have led to major ebbs and flows in debt as a percentage of GDP have largely occurred around wars. Future changes in debt levels are likely to occur as a result of entitlement spending. Most recently, debate over the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) included concerns about increasing debt levels. Business cycles and economic growth also play a significant role in debt movements.

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. Rapid increases in defense spending along with tax cuts in the 1980s began 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 by the end of the decade. Currently, tax cuts, increases in spending, and a weak economy reversed the downward trend, resulting in rising debt levels.

Though debt levels today are not at their highest point in history, future levels of debt appear to be a great concern to many. Funding the promises of the entitlement programs and recently passed federal financial assistance could result in pursuit of a large cut in other types of spending or an increase in tax revenues as a percentage of GDP to attempt to fulfill these commitments. This report will be updated as warranted.

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# Ebbs and Flows of Federal Debt

Financing the obligations of the United States has always been a central concern of Congress and the President. Levels of government spending and revenue collection are a source of congressional debate in every fiscal year. Policy decisions and economic growth also play a large role in influencing federal debt levels over time. Most recently, debate over the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) included concerns about increasing debt levels and raised some questions about the future fiscal health of the country. Observations of historical trends can illustrate the reasons behind large changes in debt levels. Ultimately, there are many implications to consider when setting policy initiatives and agendas with regard to federal debt. Understanding ebbs and flows of federal debt levels can be useful in synthesizing how budget policy affects the debt outlook.

This report will define the measures of debt, discuss the mechanisms of how debt levels change, and use historical examples to illustrate the factors causing debt movements over the last seven decades. In addition, some policies which may affect the future budgetary outlook and the debt will be discussed.

## Federal Debt

Federal debt can be defined and reported in a number of ways. In the budget submission to Congress, the President is required by statute to report essential information about government debt.<sup>1</sup> These budget documents contain data on the federal surplus or deficit, gross (total) federal debt, debt held by federal government accounts (intragovernmental), and debt held by the public.<sup>2</sup> Changes in debt held by the public closely correspond to each fiscal year's unified surplus or deficit.<sup>3</sup>

Gross federal debt is composed of 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. This amount largely consists of money contained in trust funds, such as Social Security, that has been

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<sup>1</sup> 31 U.S.C. § 1105(a).

<sup>2</sup> 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.

<sup>3</sup> 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.

invested in federal securities as required by law.<sup>4</sup> 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 macroeconomic terms because it is the amount of debt sold in credit markets. Debt held by the public will be the debt measure used to describe the ebbs and flows of debt in this report.

In most years, debt held by the public has increased on a nominal basis. Nominal measures of debt, however, do not control for inflation. Therefore, debt held by the public will be measured as a percentage of gross domestic product (GDP) in this report because it adjusts for inflation and relates the size of the debt to the size of the economy. As long as an economy grows faster than the debt, it may become better equipped to handle increasing amounts of debt because interest payments on the debt are less burdensome to the economy as a whole.

In nearly every year since the establishment of the country, the government has accumulated debt.<sup>5</sup> World War II (WWII), however, represented a new era in debt levels and the role of the United States in the global economy. Because of this, an examination of debt levels since 1940 is used in this report to show ebbs and flows of debt levels and how they have changed over the last seven decades. Selected historical examples will illustrate the sources of federal debt movements over this period.

**Figure 1** depicts GDP growth and the changes in gross debt and debt held by the public as a percentage of GDP between 1940 and 2007.<sup>6</sup> The gap between the line depicting gross federal debt and debt held by the public represents intragovernmental debt. Gross debt as a percentage of GDP in the 1940s reached unprecedented levels, not seen before or since in the United States (due to WWII). As a percentage of GDP, gross debt reached its peak in 1946 (121.7%). The minimum level was reached in 1981 (32.6%). Gross debt as a percentage of GDP was lower in FY2007 (65.5%) than during the decade immediately following the WWII period and in the mid-1990s. In terms of debt held by the public, the FY2007 debt-to-GDP ratio (36.8%) was lower than those seen between 1940 and 1965, 1986 to 1999, and 2004 to 2006. Intragovernment 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

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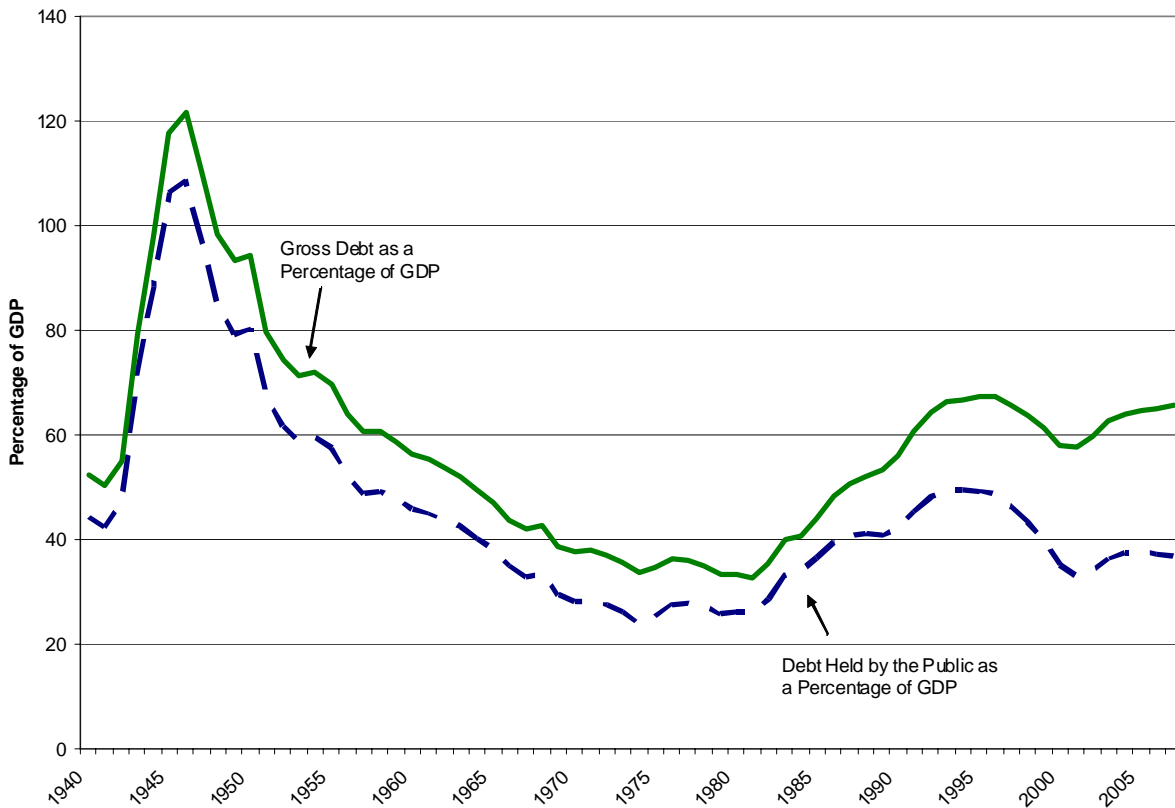
<sup>4</sup> U.S. Executive Office of the President, Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2009, Analytical Perspectives*, Feb. 2008, p. 408.

<sup>5</sup> 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. Paul Studenski and Herman E. Krooss, *Financial History of the United States: Fiscal, Monetary, Banking, Tariff, including Financial Administration and State and Local Finance*, 2<sup>nd</sup> ed. (New York: McGraw-Hill, 1963), pp. 100, 116, 125, 152.

<sup>6</sup> In this report, all references are to fiscal years unless otherwise specified.

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.

**Figure 1. Ebbs and Flows of Debt as a Percentage of GDP, 1940-2007**



**Source:** Office of Management and Budget, *FY2009 Historical Tables*.

**Note:** The **Appendix** includes individual fiscal year data corresponding to **Figure 1**.

## Causes of Changes in Federal Debt Levels

A variety of factors influence debt levels including spending levels (outlays), revenue collections (receipts), and economic growth. Debt levels increase or decrease due to changes in outlays and receipts, which are influenced by economic conditions, demographic trends, workload changes, 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 GDP in order to control for economic effects. For example, if there is a high rate of inflation in a single year compared to the previous year, it may appear that outlays or receipts increased significantly although they actually have not.

**Spending.** Spending levels are determined by mandatory and discretionary programs. Mandatory spending levels (i.e., funding obligated by laws other than annual appropriations, e.g., Social Security) concern some budget analysts due to increasing health costs and the retirement of the Baby Boom generation. When first implemented, the portion of the federal budget necessary to pay for these mandatory

programs was much lower than it is today.<sup>7</sup> Discretionary spending is provided through annual appropriations acts. Over time, the share of discretionary spending as a percentage of total federal spending has declined. Projections of large future increases in mandatory spending are expected to place further strain on the budget.<sup>8</sup> 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. On the other hand, decreases in spending with 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.** 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. Changes in receipt levels also have an impact on the debt. With no other changes to policy or the economy, increases in receipts will result in larger surpluses or smaller deficits which can decrease debt held by the public as a percentage of GDP and will generally lead to decreases in gross debt as a percentage of GDP in the absence of other policy changes. The opposite will occur with declines in receipt levels.

**GDP.** Overall economic health is often measured by the growth rate of real GDP. Economic indicators, such as debt, are often evaluated using GDP as a base because it facilitates comparisons over time. Economic growth may allow an economy to absorb higher levels of debt. Even though interest payments increase as debt levels rise, they can be offset by a higher potential tax base thereby reducing the burden on the economy.<sup>9</sup> GDP growth 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 in the absence of changes in spending and receipts. During the period analyzed in this report (FY1940 to FY2007), GDP growth did not necessarily result in the expected movements in debt as a percentage of GDP, showing that other factors influenced changes in debt levels.

**Macro-economic Interaction.** Movements in spending, receipts, or GDP (described above) can occur simultaneously or as a result of each other. Economic fluctuations tend to automatically cause short-run changes in the annual deficits because spending and revenue levels are affected as growth stimulates employment and individual income or recession reduces consumption and increases reliance on

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<sup>7</sup> For a more detailed discussion, see CRS Report RL33074, *Mandatory Spending Since 1962*, by D. Andrew Austin.

<sup>8</sup> For a more detailed discussion, see CRS Report RL34424, *Trends in Discretionary Spending*, by D. Andrew Austin.

<sup>9</sup> CRS Report RL31590, *The Federal Government Debt: Its Size and Economic Significance*, by Brian W. Cashell.



government programs.<sup>10</sup> 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 food stamps (i.e., automatic stabilizers).

If the growth in debt levels exceeds growth in the economy over the long term, an inherently unstable situation will result.<sup>11</sup> Debt levels, influenced by these changes, are also affected by policy decisions made by the President and Congress. 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.<sup>12</sup>

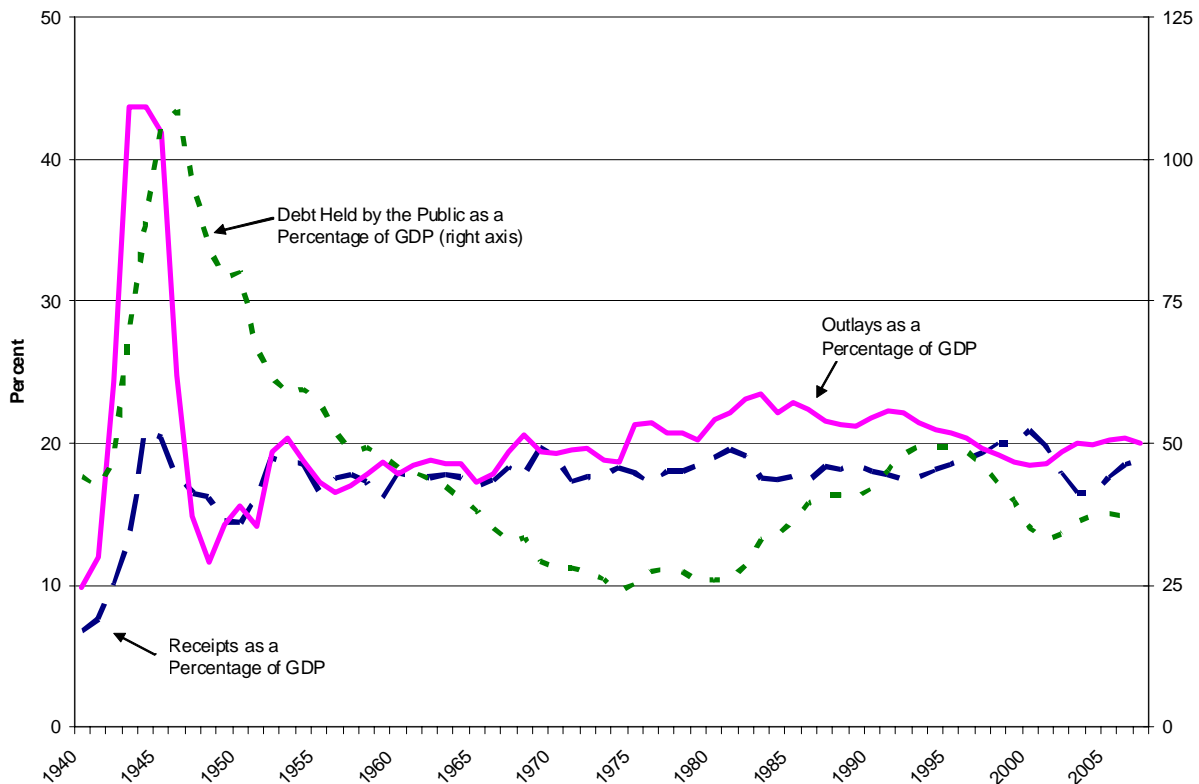
As is shown in **Figure 2**, outlays greatly exceeded receipts during WWII. As the war ended and spending fell, receipts and outlays remained relatively equal as a percentage of GDP for the next several decades. Though small deficits existed in most years, growth in GDP exceeded the growth in borrowing 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. With the exception of the surpluses of the late 1990s, debt held by the public increased as a percentage of GDP. Between 1998 and 2001, revenues exceeded outlays as a result of strong economic growth, creating a short period of declining debt as a percentage of GDP.

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<sup>10</sup> For a more detailed discussion, see CRS Report RL31235, *The Economics of the Federal Budget Deficit*, by Brian W. Cashell.

<sup>11</sup> 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. For a more detailed discussion, see CRS Report RL31590, *The Federal Government Debt: Its Size and Economic Significance*, by Brian W. Cashell.

<sup>12</sup> For more information, see CRS Report RL32747, *The Economic Implications of the Long-Term Federal Budget Outlook*, by Marc Labonte.

**Figure 2. Receipts and Outlays as a Percentage of GDP, 1940-2007**

**Source:** Office of Management and Budget, *FY2009 Historical Tables*.

**Note:** The **Appendix** includes individual fiscal year data corresponding to **Figure 1**.

**Standardized Budget Data.** The Congressional Budget Office (CBO) calculates standardized budget figures to assess the impact of economic cycles and policy changes on the debt. 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 recessions or tax cuts on the level of revenues and outlays.<sup>13</sup> 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 because economic and temporary factors have been stripped out. These CBO data will be used during discussions of certain historical periods in which the economy and policy decisions appeared to have significantly changed debt trends.

<sup>13</sup> 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 calculated by OMB. U.S. Congress, Congressional Budget Office, *The Cyclically Adjusted and Standardized Budget Measures*, Oct. 2008, available at [<http://www.cbo.gov/ftpdocs/97xx/doc9768/10-03-StandBudget.pdf>], accessed on Oct. 6, 2008.

## Trends in Debt: Select Historical Examples

Changes in debt cannot always be anticipated. Policy decisions leading to major ebbs and flows in debt as a percentage of GDP have largely occurred around wars. Entitlement spending will also likely result in future changes in debt levels. Most recently, debate over the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) included concerns about increasing debt levels. In most cases, these events led to or are expected to lead to upward movements in debt due to immediate or out-year spending requirements. In addition, the economy, through its effects on revenues and outlays, has also played a significant role in debt movements. Over time, however, the effects of strong or weak GDP growth have not always resulted in predictable debt movements. 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.

Data on revenue collection, spending, and economic growth can illustrate how debt has moved over time. The historical examples below will be used to 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.

### World War II and the Effects on Debt

In December 1941, the U.S. entered WWII. War-time spending priorities had a greater impact on the debt than anything else in the six decades since. WWII resulted in unprecedented levels of 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. 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.<sup>14</sup> Total spending remained at the 1943 rate for the next two years and fell quickly in 1946 as the war ended. By 1947, outlays had essentially returned to their 1941 levels, hovering around 15% of GDP for the next several years. The six years of 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 108.6% in 1946. The debt nearly equaled or surpassed GDP between 1944 and 1950.

Enormous changes in the economy resulted from the policy choices made during this period. GDP growth, while strong during most of this period, rising nearly 50% between 1940 and 1950, was not enough to compensate for the effects of the huge increases in spending. Despite strong economic growth, spending levels as a result of the war caused massive increases in debt as a percentage of GDP.

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<sup>14</sup> Defense spending reached its peak in 1944 at 37.8% of GDP.

## Entitlements and 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 entitlement programs related to healthcare. 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.<sup>15</sup>

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.<sup>16</sup> 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 circumstance. At the time, these programs did not constitute a large portion of government spending. During the first fiscal year that Medicare and Medicaid were in effect (FY1967) they consumed slightly over 9% of total federal mandatory spending. 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 more than half of the total amount that the government spent on mandatory programs. Spending on mandatory programs in FY1967 was 26% of total outlays and 5% of GDP.<sup>17</sup> Though not a large portion of total outlays at the onset, entitlements will 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.<sup>18</sup>

In addition to these programs that created new government obligations, the country was also engaged in war in Vietnam. However, this conflict did not generate the same levels of increased wartime spending similar to 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. This was largely because the Vietnam conflict was

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<sup>15</sup> Between 1941 and 2007, GDP grew at an average annual rate of 3.8%, so the growth rate experienced during the 1960s was noticeably faster than average.

<sup>16</sup> 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 RL33712, *Medicare: A Primer*, by Jennifer O'Sullivan.

<sup>17</sup> These entitlements have had a greater impact on spending levels and the debt in recent times. In FY2007, Medicare and Medicaid consumed 39% of total mandatory spending and Social Security (OASDI) accounted for 40%. Overall, mandatory spending consumed 53% of total government outlays and 11% of GDP. This means that over the last 40 years, mandatory spending on Medicare and Medicaid has increased by 30 percentage points of GDP while Social Security's portion has fallen by 12 percentage points. At the same time, total federal spending on mandatory outlays as a percentage of GDP has more than doubled over the same period.

<sup>18</sup> U.S. Congress, Congressional Budget Office, *The Budget and Economic Outlook: An Update*, Sept. 2008, p. 1.

significantly smaller in scale compared to WWII and defense spending had already increased in response to the Cold War.<sup>19</sup>

Outlays were higher than receipts during much of the 1960s. However, the strength of the economy allowed receipts as a percentage of GDP to remain relatively constant during this decade. Tax increases also occurred in 1968 and 1969. In 1960 and 1969, there was a small budget surplus. Debt held by the public as a percentage of GDP stood at 45.7% in 1960 and fell to 29.3% in 1969. Outlays averaged 18.7% of GDP with revenues at 17.9%. Unlike the previous experience with war, GDP growth and economic expansion overwhelmed spending increases and allowed debt held by the public as a percentage of GDP to fall.

## Defense Buildup

After declining for more than three decades from the peak of 108.6% of GDP in 1946 to 23.9% in 1974, debt held by the public as a percentage of GDP rose continuously during the 1980s and into the 1990s.<sup>20</sup> Rapid increases in defense spending combined with significant tax cuts enacted in response to recession led to unprecedented increases in the debt during peacetime. Defense spending rose from 4.9% of GDP in 1979 to peak at 6.2% in 1986. Between 1982 to 1989, annual defense spending remained around 6% of GDP. Over the same period, receipts fell from 19.0% of GDP in 1980 to 18.4% of GDP in 1989. Receipts hit their lowest level in 1986 at 17.4% of GDP. As the country continued to borrow more money, net interest payments rose from 1.9% of GDP in 1980 to 3.1% of GDP in 1989.

During the late 1970s and early 1980s, inflation played a major role in revenue collection. Because of inflation, households moved into higher tax brackets even though their real dollar income had not increased, a phenomenon known as bracket creep. 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.<sup>21</sup> 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. High interest

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<sup>19</sup> CRS Report RL31176, *Financing Issues and Economic Effects of American Wars*, by Marc Labonte and Mindy Levit.

<sup>20</sup> Between 1976 and 1978, debt held by the public as a percentage of GDP remained relatively constant. Office of Management and Budget, *Historical Tables*, February 2008, p. 5. From 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% (1.1% in 1975, 1.5% in 1976).

<sup>21</sup> 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.

rates were largely seen as the cause of the economic downturn. In addition, government spending increased during this period to stimulate the economy in an attempt to create growth and incite a recovery.<sup>22</sup>

As a result of spending increases, inflation, 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 these 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 conditions of the recessions. Outlays due to policy changes increased more than twice as much, as a percentage of potential GDP, during this period than actual outlays did. Actual outlays increased by less because of falling inflation. Overall, nearly 90% of the increase in the deficit can be attributed to policy changes.

**Table 1. Standardized Budget Totals, 1980-1983**  
(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.

**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.

Congress and the President enacted several deficit reduction measures in an attempt to control increasing deficit levels in the 1980s. 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.<sup>23</sup> However, the primary goal of the Balanced Budget Act, to eliminate

<sup>22</sup> 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.

<sup>23</sup> 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 Robert (continued...)

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. Tax increases and a recession characterized the first half while significant budget surpluses and a strong economy distinguished the later years. Due to the rapid increase in debt during the previous decade, additional deficit reduction measures were undertaken in the early part of the 1990s.<sup>24</sup> A strong economy, low unemployment, and other factors also helped to reduce deficits. Beginning in 1998, there were four consecutive years of surpluses, the first period of back-to-back surpluses in four decades. Strong economic performance developed steadily following the end of the recession in the early part of the 1990s, which was marked by tax increases. Debt held by the public as a percentage of GDP declined for four successive years for the first time in almost two decades.<sup>25</sup>

Debt held by the public as a percentage of GDP increased in each year between 1990 and 1993, from 42.0% to 49.4%. However, between 1994 and 1999, debt held by the public as a percentage of GDP fell more than 16 percentage points from 49.3% to 33.0%.<sup>26</sup> Debt as a percentage of GDP fell during this period due to decreases in spending, increases in receipts, strong GDP growth, and the resulting economic interactions.

Spending in certain categories also fell, which contributed to the budget surpluses and lower debt as a percentage of GDP seen at the end of the decade. 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%.

As defense spending began falling during the 1990s, tax increases were enacted as Congress and the President renewed efforts aimed at deficit reduction. 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.<sup>27</sup>

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<sup>23</sup> (...continued)

Keith and CRS Report RL31137, *Sequestration Procedures Under the 1985 Balanced Budget Act*, by Robert Keith.

<sup>24</sup> For more information, see CRS Report RS22098, *Deficit Impact of Reconciliation Legislation Enacted in 1990, 1993, 1997, and 2006*, by Robert Keith.

<sup>25</sup> 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.

<sup>26</sup> Debt as a percentage of GDP fell further in 2000 and 2001.

<sup>27</sup> For more information, see CRS Report RL34300, *Pay-As-You-Go Procedures for Budget* (continued...)

However, meeting deficit reduction targets would have required massive cuts to key mandatory and discretionary programs.<sup>28</sup> 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. Despite this, receipts fell from 18.0% of GDP in 1990 to 17.6% in 1993 largely as a result of the economic slowdown.

Beginning in 1992, GDP growth ranged from 3% to 5% annually through the end of the decade. Due to the strong growth and in combination with various tax increases in the Omnibus Budget and Reconciliation Act of 1993 (P.L. 103-66), receipts increased from 17.6% of GDP in 1993 to 20.0% in 1999. Low rates of unemployment also helped boost the level of receipts as more people had jobs and income, which generated tax revenue. Reliance on income security programs fell as a result from 2.7% of GDP in 1993 to 2.2% in 1999.

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 fifteen years.

## Economic Downturn and Entitlements

The years of budget surpluses and declining debt, which continued until 2001, have since been replaced by budget deficits and increasing debt. Tax cuts and increases in entitlement spending have been two of the largest contributors resulting in this turn-around. In 2000, debt held by the public as a percentage of GDP was 33.0%. Though it fell in 2001, it has been rising since that time. Debt held by the public as a percentage of GDP reached its peak for the decade in 2005 (37.5%) and declined slightly in 2006 (37.1%) and 2007 (36.8%). It is projected to resume rising through 2009.<sup>29</sup>

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<sup>27</sup> (...continued)

*Enforcement*, by Robert Keith.

<sup>28</sup> 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.

<sup>29</sup> Office of Management and Budget, *FY2009 Mid-Session Review*, July 2008, Table S-13.



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 20.9% of GDP. By 2004, receipts fell over 4 percentage points to 16.4% of GDP, their lowest level since 1959. Receipts have been rising since that time to reach 18.8% of GDP in 2007. At the same time, federal spending rose from 18.4% of GDP in 2000 to 20.0% in 2007, increasing in five out of seven years during this period. The economy also showed signs of weakness. Annual GDP growth averaged 2.6% between 2000 and 2007, down from 3.5% 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 the economy. Policy changes had nearly equal impact on revenues and outlays and were responsible for roughly 60% of the total changes in these measures as a percentage of potential GDP. The change in the deficit as a result of policy decisions was of similar magnitude.

**Table 2. Standardized Budget Totals, 2000-2004**  
(as a percentage of potential GDP)

	Total Budget		Standardized		FY2000 to FY2004		
					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.

Currently, discussion surrounding the debt has focused on expenditures on Iraq, Afghanistan, and anti-terrorism measures; recently enacted federal financial assistance legislation; 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 foreseeable future leaving the level of related long-term spending and its impact on the federal debt somewhat uncertain.

Even more unclear are the effects of the legislation enacted to provide federal assistance to the credit and financial markets. To date, the government enacted the

Housing and Economic Recovery Act of 2008 (P.L. 110-289) and specific provisions in the Emergency Economic Stabilization Act of 2008 (Division A of P.L. 110-343) devoted to providing financial stability to these industries. Along with financial intervention in Bear Stearns and AIG, the resulting outlays generated by these actions could be significant.<sup>30</sup> Combined with the recent rising unemployment and slow rates of economic growth, the new spending provided through this legislation could increase debt as a percentage of GDP, at least in the short-run. At the present time, the effect on the federal debt is hard to determine as the Treasury expects to recoup some of these outlays by selling the assets at a future date.

In addition to this spending, the largest mandatory spending programs have grown significantly during the last decade. In 2000, spending on Medicare, Medicaid, and Social Security equaled 7.4% of GDP. In 2007, this number rose to 8.4% of GDP representing a one percentage point increase in just seven years.<sup>31</sup> The long-term consequences on future debt as a result of these mandatory programs may also be great cause for concern as the Baby Boomers approach retirement age.

## 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, largely consists of money contained in trust funds such as Social Security. The amount contained in these trust funds is largely determined by payroll taxes collected less benefits paid.

Why is it important to examine this measure of debt? In 1982, intragovernmental debt as a percentage of GDP reached its lowest level. It has steadily risen since that time from 6.6% to 28.6% of GDP in 2007. This money has been used to finance other government spending while supplying Treasury I.O.U.s to the Trust Funds from which the borrowing has occurred. In 1983, major reforms

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<sup>30</sup> For more information see CRS Report RS22956, *The Cost of Government Financial Interventions, Past and Present*, by Baird Webel, N. Eric Weiss, and Marc Labonte; and U.S. Congress, Congressional Budget Office, *CBO's Analysis of Dodd Substitute Amendment for H.R. 1424*, Oct. 1, 2008.

<sup>31</sup> 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>], accessed on September 18, 2008.

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.<sup>32</sup> As a result of these changes in law, the level of surplus in the Social Security Trust Fund rose and the Treasury has been borrowing from it, thereby increasing intragovernmental debt.

Increases in gross debt as a percentage of GDP as a result of intragovernmental debt are a significant concern over the long run. In their 2008 report, the Social Security trustees projected that in 2017 the Trust Fund will begin to owe more benefits than what it collects in payroll taxes.<sup>33</sup> As the Trust Fund begins to redeem its Treasury securities in order to pay benefits to retirees, additional strains on the budget and debt levels will be created as large amounts of money from general revenues are needed to fund these Social Security benefits. In addition, the funds from the surplus currently being used by the government to fund other programs will no longer be available, putting strain on the funding for these programs.

Further, the liabilities to future generations of elderly from scheduled Social Security benefits do not show up in the debt. Funding the promises of the entitlement programs are difficult to fully measure. CBO calculates a fiscal gap measure which quantifies the reductions in spending and revenues necessary to generate fiscal stability over a given period. They project that a permanent and immediate combination of spending cuts and revenue increases amounting to 5.2% of GDP will be necessary in order to *maintain* the present level of debt (as a percentage of GDP) 50 years from now.<sup>34</sup> This amount is significant because outlays and revenues have each historically amounted to about 20% of GDP. Enacting this change amounts to a one-quarter cut in spending or a one-quarter increase in revenue collection or some combination of the two at a time when the country is facing a retiring Baby Boom generation. Standard economic analysis predicts that this could reduce domestic investment, worker productivity, and real wages further affecting the economy in the short run.<sup>35</sup>

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<sup>32</sup> U.S. Social Security Administration, *Report of the National Commission on Social Security Reform*, available at [<http://www.ssa.gov/history/reports/gspan.html>], accessed on Oct. 7, 2008.

<sup>33</sup> U.S. Social Security Administration, *Status of the Social Security and Medicare Programs, A Summary of the 2008 Annual Reports*, available at [<http://www.ssa.gov/OACT/TRSUM/index.html#C>], accessed on Aug. 27, 2008.

<sup>34</sup> U.S. Congress, Congressional Budget Office, *The Long-Term Budget Outlook*, December 2007, pp. 5-7.

<sup>35</sup> In the long run, the increase in national savings as a result of the reduction in outlays or increase in spending would either increase investment or reduce the trade deficit. For a more detailed discussion, see CRS Report RL31590, *The Federal Government Debt: Its Size and Economic Significance*, by Brian W. Cashell.

## Considerations for Congress

Debt is affected by annual policy decisions on the levels of spending and revenue. 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. Though the accumulation of debt has always been a concern, some future challenges are already visible. As more people retire and become eligible for mandatory program benefits and if per capita healthcare costs continue to increase, these programs will consume greater portions of the budget unless policy changes are implemented. Potential changes could include benefit cuts, tax increases, or programmatic changes.

Effective fiscal discipline is necessary to balance the budget and rein in the debt. This would require less spending, increases in revenue collections, faster than average economic growth, or a combination of these things. Many economists agree that having some federal debt is a good thing because it builds credit which allows for more favorable borrowing terms. It encourages investment within the country because federal debt is seen as relatively low-risk and safe. However, debt is not free and the interest payments that accompany it can put further strains on budgets. Taking no action to reduce the projected growth in the debt potentially might lead to insolvency at some time in the future, implying that the government would have to default on its obligations.

## Appendix. Fiscal Situation, 1940-2007

Fiscal Year	Gross Debt as a Percent of GDP	Debt Held by the Public as a Percent of GDP	Intragovernmental Holdings as a Percent of GDP	Outlays as a Percent of GDP	Receipts as a Percent of GDP	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	13.7
1942	54.9	47.0	7.9	24.3	10.1	17.8
1943	79.1	70.9	8.3	44	13.3	17.0
1944	97.6	88.3	9.2	43.6	20.9	11.6
1945	117.5	106.2	11.3	41.9	20.4	3.3
1946	121.7	108.6	13.1	24.8	17.6	-6.2
1947	110.3	96.2	14.1	14.8	16.5	-5.1
1948	98.4	84.5	14.0	11.6	16.2	0.2
1949	93.2	79.1	14.1	14.3	14.5	2.5
1950	94.1	80.2	13.9	15.6	14.4	2.2
1951	79.6	66.9	12.8	14.2	16.1	11.4
1952	74.3	61.6	12.7	19.4	19.0	4.6
1953	71.3	58.6	12.8	20.4	18.7	5.0

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Fiscal Year	Gross Debt as a Percent of GDP	Debt Held by the Public as a Percent of GDP	Intragovernmental Holdings as a Percent of GDP	Outlays as a Percent of GDP	Receipts as a Percent of GDP	GDP Growth (%)
1954	71.8	59.5	12.3	18.8	18.5	0.0
1955	69.5	57.4	12.1	17.3	16.6	3.7
1956	63.8	52.0	11.8	16.5	17.5	5.5
1957	60.5	48.7	11.8	17.0	17.8	1.6
1958	60.7	49.2	11.6	17.9	17.3	-0.7
1959	58.5	47.8	10.7	18.7	16.1	5.1
1960	56.1	45.7	10.4	17.8	17.9	4.1
1961	55.1	44.9	10.2	18.4	17.8	1.1
1962	53.4	43.7	9.7	18.8	17.6	5.7
1963	51.8	42.4	9.4	18.6	17.8	4.2
1964	49.4	40.1	9.2	18.5	17.6	5.7
1965	46.9	38.0	9.0	17.2	17.0	5.5
1966	43.6	35.0	8.6	17.9	17.4	7.3
1967	41.9	32.8	9.1	19.4	18.3	4.5
1968	42.5	33.4	9.1	20.6	17.7	3.1
1969	38.6	29.3	9.2	19.4	19.7	4.7

## CRS-19

Fiscal Year	Gross Debt as a Percent of GDP	Debt Held by the Public as a Percent of GDP	Intragovernmental Holdings as a Percent of GDP	Outlays as a Percent of GDP	Receipts as a Percent of GDP	GDP Growth (%)
1970	37.6	28.0	9.7	19.3	19.0	1.2
1971	37.8	28.1	9.7	19.5	17.3	1.6
1972	37.0	27.4	9.6	19.6	17.6	4.2
1973	35.7	26.1	9.6	18.8	17.7	6.3
1974	33.6	23.9	9.7	18.7	18.3	2.7
1975	34.7	25.3	9.4	21.3	17.9	-1.8
1976	36.2	27.5	8.7	21.4	17.2	3.8
TQ	35.2	27.1	8.1	21.0	17.8	0.0
1977	35.8	27.8	8.0	20.7	18.0	5.8
1978	35.0	27.4	7.6	20.7	18.0	5.2
1979	33.2	25.6	7.6	20.2	18.5	4.4
1980	33.3	26.1	7.2	21.7	19.0	0.3
1981	32.6	25.8	6.7	22.2	19.6	2.0
1982	35.2	28.6	6.6	23.1	19.1	-1.1
1983	39.9	33.1	6.8	23.5	17.5	2.1
1984	40.7	34.0	6.7	22.2	17.4	7.6

## CRS-20

Fiscal Year	Gross Debt as a Percent of GDP	Debt Held by the Public as a Percent of GDP	Intragovernmental Holdings as a Percent of GDP	Outlays as a Percent of GDP	Receipts as a Percent of GDP	GDP Growth (%)
1985	43.9	36.4	7.5	22.9	17.7	4.5
1986	48.1	39.4	8.6	22.4	17.4	4.1
1987	50.5	40.7	9.8	21.6	18.4	2.6
1988	51.9	41.0	11.0	21.3	18.2	4.5
1989	53.1	40.6	12.5	21.2	18.4	3.8
1990	55.9	42.0	13.9	21.8	18.0	2.4
1991	60.6	45.3	15.3	22.3	17.8	-0.3
1992	64.1	48.1	16.1	22.1	17.5	2.6
1993	66.2	49.4	16.8	21.4	17.6	3.0
1994	66.7	49.3	17.4	21.0	18.1	3.6
1995	67.2	49.2	18.0	20.7	18.5	3.1
1996	67.3	48.5	18.8	20.3	18.9	3.1
1997	65.6	46.1	19.5	19.6	19.3	4.5
1998	63.5	43.1	20.4	19.2	20.0	4.2
1999	61.4	39.8	21.6	18.7	20.0	4.4
2000	58.0	35.1	22.9	18.4	20.9	4.3



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Fiscal Year	Gross Debt as a Percent of GDP	Debt Held by the Public as a Percent of GDP	Intragovernmental Holdings as a Percent of GDP	Outlays as a Percent of GDP	Receipts as a Percent of GDP	GDP Growth (%)
2001	57.4	33.0	24.4	18.5	19.8	1.2
2002	59.7	34.1	25.6	19.4	17.9	1.2
2003	62.5	36.2	26.3	20.0	16.5	2.1
2004	64.0	37.4	26.6	19.9	16.4	3.7
2005	64.6	37.5	27.1	20.2	17.6	3.1
2006	64.9	37.1	27.8	20.4	18.5	3.0
2007	65.5	36.8	28.6	20.0	18.8	2.3

Source: Office of Management and Budget, *FY2009 Historical Tables*.

<http://wikileaks.org/wiki/CRS-RL34712>