Then and Now: A Look Back and Ahead at the Federal Budget

Alan J. Auerbach and William Gale*

August 28, 2025

ABSTRACT

It is well-understood that the U.S. faces an unsustainable fiscal future. We review historical budget trends and basic fiscal processes. We provide new estimates of the budget outlook, incorporating the recently enacted One Big Beautiful Bill Act (OBBBA), and finding that the debt-GDP ratio will rise to 182% in 2054 under the OBBBA as legislated and to 201% if the temporary tax and spending provisions are made permanent. These figures compare to a current debt-GDP ratio of about 100% and a pre-OBBBA CBO analysis earlier this year that projected the 2054 debt-GDP ratio to be 154%. We estimate a fiscal gap – the permanent tax or spending changes needed to keep the 2054 debt-GDP ratio at its current level – to be about 3.4% of GDP if OBBBA is extended. We discuss the economic and political ramifications of debt and different ways to address the fiscal situation.

*Auerbach is Professor of the Graduate School in the Department of Economics at the University of California, Berkeley and is a Research Associate at the National Bureau of Economic Research. Gale is the Arjay and Frances Fearing Miller Chair in Federal Economic Policy at the Brookings Institution. The authors thank Ian Berlin, Oliver Hall, Tayae Rogers, Imari Stewart, and Sona Wyse for research assistance. Gale thanks Arnold Ventures and the California Community Foundation for generous research support. The views expressed here are solely those of the authors and should not be attributed to any other person or any organization.

I. Introduction

After showing deficits every year from 1970 to 1997, the U.S. federal budget was in surplus in fiscal year 2000 for the third year in a row, and the surplus reached a post-War high of 2.4% of GDP. The Congressional Budget Office (CBO 2001) projected that surpluses would increase over time, totaling $5.6 trillion over the succeeding 10 years, and that all available redeemable public debt would be paid off by 2006. Leading policy makers and academics confronted the problem of how monetary policy would be conducted and where investors would find safe assets if there were no available U.S. public debt. The need to maintain a stock of public debt was a key motivation cited by Greenspan (2001) in his pivotal support of tax cuts. Shortly thereafter, Congress enacted, and President George H.W. Bush signed, major tax cut legislation.

A quarter of a century later, it is safe to say that the problem has been solved. At the end of Fiscal Year 2024, U.S. federal debt held by the public was equal to about 98% of annual GDP or about $28 trillion. It is well-understood that the U.S. faces an unsustainable fiscal future under current policies.[1]

Fiscal issues have come to the fore again for several reasons, some obvious, some less so. Higher debt and higher interest rates in recent years have substantially hurt the budget outlook. Moody's Ratings recently downgraded U.S. long-term debt. The nation needs to roll over or refinance around one-third of its entire debt portfolio in 2025 (Slok, Shah, and Galwankar 2024), raising concerns about the strength of demand for Treasury debt.

The recently-enacted One Big Beautiful Bill Act of 2025 (OBBBA, Public Law 119-21,

[1] For recent views on the fiscal situation, see Auerbach and Gale (2025), Auerbach and Yagan (2025), CBO (2025), Dynan and Elmendorf (2025), Edelberg, Harris, and Sheiner (2025), Furman (2024), and Reidl (2025).

described in Appendix I) substantially reduces long-run tax revenues and boosts long-term debt. Calculations described below indicate that over the next decade, deficits will be more than $4.1 trillion larger due to OBBBA as enacted and would be $5.5 trillion larger if the temporary provisions are made permanent. Moreover, as discussed in Appendix I, OBBBA was enacted via a budget maneuver that disregarded long-standing budget rules and conventions. If this precedent is followed by future Congresses, major tax reductions will prove easier to enact, further threatening the fiscal outlook.

Meanwhile, the exhaustion dates for Social Security and Medicare trust funds have become perilously close: eight years is not much time, given the delays and obstacles in reaching political agreement and enacting adjustments on a contentious issue. The Fed accumulated substantial Treasury holdings during the COVID pandemic; unwinding that portfolio may put pressure on interest rates, which would exacerbate the fiscal outlook.

In addition, to the extent that reducing the trade deficit has become a key goal of economic policy in the Trump Administration, deficit reduction will be of heightened importance. Basic macroeconomic identities imply that a country that spends more than it produces will run a trade deficit. Even as imports fall, in the absence of changes in national saving relative to national investment, the Administration's increased tariffs will be offset by changes in exchange rates and other factors (such as increased input costs) that reduce exports, thus thwarting any effort to reduce the trade deficit. And if OBBBA increases national investment more than national saving, which seems likely because it pairs large deficit increases with investment incentives, the trade deficit will rise, not fall. To the extent that the trade deficit declines without an increase in national saving, it will come at the cost of a decline in domestic investment.

In this paper, we review budget trends and basic budget concepts, provide new estimates of the budget outlook, incorporating the OBBBA and alternatives, and discuss the economic and political ramifications of debt and different ways of addressing the fiscal situation.

Section II reviews basic budget trends, highlighting both the secular patterns and the special role of the Global Financial Crisis (GFC) and the COVID pandemic in affecting fiscal outcomes. We also review several budget process issues, to help frame recent budget events.

Section III provides new fiscal projections. The basic story has two components. First, primary deficits – the difference between federal non-interest spending and revenues – are projected to be persistent and, given the near-full-employment assumptions, sizable as well. Second, net interest payments rise steadily and substantially relative to GDP due to high pre-existing debt, persistent primary deficits, and gradually increasing interest rates. Taken together, these two items will cause the unified deficit (the difference between all federal spending and revenues) and the debt-GDP ratio to rise substantially and inexorably over the next several decades under any plausible set of economic assumptions, with no natural turning point.

Specifically, assuming that the added deficits created by OBBBA do not raise interest rates, we project that in 2054, the debt-GDP ratio will be 183% of GDP under the provisions of the OBBBA and 199% if the temporary spending and tax provisions of OBBBA are made permanent. If interest rates rise – recent literature finds that a 1 percentage point rise in the debt-GDP ratio raises interest rates by about 3 basis points – the debt-GDP ratio would rise to 203% in 2054 under OBBBA as written and 233% if the temporary provisions are extended. By way of comparison, the March Congressional Budget Office baseline (CBO 2025i) projects that, in the absence of OBBBA, the debt-GDP ratio would be 154% in 2054.

Fiscal gap calculations indicate the magnitude of the changes required to meet a future

fiscal target. For example, starting from the current-law baseline, we estimate that to keep the debt-to-GDP ratio at its 2024 level (about 98%) in 2054 would require a combination of permanent spending cuts or tax increases equaling 2.87% of GDP if changes are implemented starting in 2026. This would have represented about $827 billion in 2024, or about 34% of income tax revenues in that year, 17% of all tax revenues, 14% of non-interest spending, or 24% of non-interest spending other than Social Security and Medicare. If the provisions of OBBBA are made permanent, the fiscal gap rises by almost one-fifth to 3.43% of GDP. Delaying the implementation of the corrective actions would further raise the size of the intervention needed. We also provide sensitivity analysis, in particular with respect to productivity growth, interest rates, investment behavior, and tariff revenues.

Section IV discusses the economic effects of debt, emphasizing that, while debt has some beneficial uses, the long-term projection raises several issues. Deficits reduce national saving, which reduces future national income. That effect can come through higher interest rates, which reduce investment and thus reduce the future capital stock, output, and income. And it can come from more borrowing from foreigners, which helps preserve future output but raises the amount we owe them in the future and, thus, still reduces future national income. In addition to reducing future national income, the projected debt path will impinge on the government's flexibility to respond to recessions, social needs, or military contingencies. More broadly, the fiscal outlook, combined with frequent and unpredictable shifts in economic policy, could threaten the country's global economic leadership, the reserve-currency status of the dollar, and the safe-haven status of Treasury debt. None of this story depends on deficits creating a financial crisis, which seems unlikely to occur in the near term, at least not for economic reasons, though political missteps could bring on a serious problem.

Section V discusses how the current debt situation is unlike any other episode the country has faced in the past. We also discuss lessons from other countries' fiscal consolidation efforts and how they apply to the U.S., which differs from other countries in meaningful ways. Finally, we discuss why defaulting on the debt and trying to inflate it away will not address the fiscal challenge for the U.S. Section VI provides a short conclusion.

II. Background

A. Budget Trends

In fiscal year (FY) 2024, the federal government spent more than $6.7 trillion, raised $4.9 trillion in revenues, with the difference of $1.8 trillion equal to the unified deficit. Relative to GDP, federal spending was 23.4%, revenues 17.1%, and the unified deficit 6.3%.[2]

Figure 1 shows budget aggregates since 1962. With the exception of crisis periods, federal spending has fluctuated only mildly as a share of GDP. From 1962-1975, outlays (including interest) averaged 18.5 percent of GDP and with rare exceptions stayed between 17% and 19%. Starting in 1975, spending exceeded 20% of GDP in almost every year through 1995, peaking at 22.9% in 1983. Outlays fell over the rest of the 1990s, hitting a trough at 17.7% of GDP in 2000 and 2001 and then rising slowly over the course of the next two decades, with the notable exception of the spike during the GFC. During the COVID pandemic, aggregate outlays jumped to about 30% of GDP in 2020 and 2021 and have since adjusted downward, reaching 23.4% of GDP in 2024.[3]

[2] The government's fiscal year runs from October 1 of the previous calendar year to September 30 of the current one. Fiscal year 2024 began on October 1, 2023, and ended on September 30, 2024. All data in this section (and in the Figures) are for fiscal years and are taken from CBO (2025e) unless otherwise noted.

[3] We will refer to outlays and spending interchangeably. Federal spending is recorded mainly on a cash-flow basis; the major exception is federal credit programs. In addition, some programs – Social Security and the U.S. Postal Service – are considered "off budget" programs but are included in the unified deficit. Appendix II discusses each of these issues.

Besides cyclical fluctuations, aggregate revenues were remarkably constant as a share of GDP from the early 1960s through the early 1990s, averaging 17.5% and largely remaining between 16.5% and 18.5%. Revenues rose over the course of the 1990s, peaking at 20.0% of GDP in 2000. Revenue fell to 15.6% of GDP in 2004 just after the 2001 and 2003 tax cuts and to 14.5% in 2009 and 2010 during the GFC. Afterwards, revenues rose gradually to over 17% of GDP by 2017 but then fell back to 16% of GDP after the 2017 tax cuts, before rising during the Covid pandemic.

Trends in the unified deficit reflect the spending and revenue patterns just described. Persistent and rising deficits from the 1960s to the early 1990s, with clear cyclical fluctuations, were reduced and then eliminated by the end of the century only to re-emerge and then grow throughout the last 25 years, with especially large spikes in the GFC and the Covid pandemic.

1. Components of Spending

The relative stability of aggregate spending as a share of GDP obfuscates significant changes in its composition over time.[4] A common way to examine the allocation of outlays is to distinguish between mandatory programs – such as Social Security, Medicare, and Medicaid – which generally continue year-to-year as designated in the law unless Congress makes changes – and discretionary programs – such as defense, infrastructure, and education – which are typically only authorized for a limited period, usually a year, and so expire unless they are actively extended. In 2024, mandatory outlays accounted for about 60% of outlays, compared to 27% for discretionary programs, with the remaining 13% being net interest payments.[5] As a share of the

[4] The relative stability of aggregate spending as a share of GDP implies that the relative size of different types of spending as a share of overall spending follows the same patterns as their relative size as a share of GDP.

[5]Technically, net interest is classified as mandatory spending, but it is typically broken out from other mandatory spending.

budget, mandatory spending – driven by changes in Social Security, Medicare, and Medicaid – has increased over time, while discretionary spending – in particular, on defense – has declined.

Figure 2 allocates spending into six major categories, with four categories accounting for the vast majority of outlays. Social security outlays have doubled as a share of GDP, from 2.4% in 1962 to 5.1% in 2024. Growth has been gradual, with the exception of the early 1970s, when a flawed "double indexing" formula was introduced,[6] which boosted spending from 2.8% of GDP in 1970 to almost 4.0% just five years later. This formula was adjusted later in the decade. During the GFC, outlays rose by another 0.5% of GDP as many people accelerated their retirement and GDP fell.

Federal health care spending was close to zero before Medicare and Medicaid were enacted in 1965. Spending then started a steady march upward, rising to 1% of GDP by 1970, 2% by 1985, 3% by 1993, 4% by 2008, and 5% by 2015. It reached 6% in 2020 and has hovered just below that figure since then.

In contrast to these major entitlement programs, defense spending has fallen substantially as a share of GDP. At almost 9% of GDP in 1962 (and higher shares in the preceding 20 years), defense spending fell to about half of that as a share of the economy by 1979. The Reagan Administration boosted spending, which reached a local peak of 6.1% of GDP in 1986, but the "peace dividend" from the break-up of the Soviet Union, deficit-cutting policies, and strong economic growth reduced it to below 3% of GDP by 1999. From there, it rose gradually to 4.6% of GDP in 2010 and has since fallen back to about 3% in recent years.

Net interest payments were just 1.2% of GDP in 1962 and did not rise above 2% of GDP

[6] These provisions had the effect of increasing nominal benefits by more than inflation, leading to a substantial increase in real benefits over the period. See Social Security Administration (2004) for further discussion.

until 1981. As debt and interest rates rose in the 1980s, net interest payments rose to almost 3.2% of GDP in 1991, then fell in response to budget cutbacks, lower interest rates, and stronger growth. The low interest rates prevailing after the GFC kept interest payments low – well under 2% of GDP – through 2020. But higher debt levels incurred during the pandemic and the higher interest rates that followed raised payments to 3.1% in 2024.

Although the government runs thousands of programs, the four categories listed above – Social Security, healthcare, defense, and interest on the debt – account for the vast majority of federal spending. In FY 2024, they equaled about 71% of outlays. And this is typical of the last several decades, though the composition of the total within the four areas has changed over time. The remaining categories of federal spending provide many of the core functions of the government. Nondefense discretionary spending (NDDS) includes programs for education, transportation and infrastructure, scientific research, veterans' health, agriculture, justice and law enforcement, housing assistance, and international affairs. NDDS was about 3.3% of GDP in 1962 and rose to 5.1% by 1980. Under President Reagan, spending fell to 3.3% of GDP by 1989. Despite a brief increase, it fell further to 3.1% of GDP by 1999, rose to 4.4% in 2010, and then fell back to lower levels to reach 3.3% of GDP in 2024, despite a brief increase during the pandemic.

Other mandatory spending includes the Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps), Temporary Assistance for Needy Families (TANF), Supplemental Security Income, unemployment compensation, veterans' benefits, federal employee retirement, and certain refundable tax credits. Outlays were 2.3% of GDP in 1962 and 2.7% in 1974. They peaked during the 1975 recession at 4.3% of GDP, then fell to 3.0% by 1985 and under 2% by 1997. Although remaining between 2.5% and 3.5% of GDP for much of the

remaining period, outlays peaked at 5.1% of GDP during the GFC and a whopping 10.5% of GDP due to policies enacted during the COVID pandemic.

2. Components of Revenue

Federal revenue comes in four basic categories: individual income taxes, payroll taxes, corporate income taxes, and other taxes. In 2024, individual income and payroll taxes accounted for 84% of revenues. The corporate income tax raised about 11% of all revenues, with other taxes accounting for just 5% of revenues.

These shares have fluctuated over time, as shown in Figure 3. The income tax has long been the largest source of federal revenues, raising 7.8% of GDP in 1962, a figure that rose gradually to 9.1% in 1981, before falling to 7.6% in 1984, as a result of Reagan's 1981 tax cuts and other factors. With a strong economy in the 1990s and legislated tax increases in 1990 and 1993, revenues rose to 9.9% by 2000. George W. Bush's 2001 and 2003 tax cuts contributed to reduced income tax revenues of 6.7% of GDP in 2004 and revenues troughed at 6.0% of GDP in 2010 due primarily to the GFC. These revenues then rose gradually, peaked at 10.3% in the pandemic (as GDP briefly fell sharply), and were 8.4% of GDP in 2024.

Payroll taxes have increased gradually as a share of revenue, to keep pace with the expanding scope and benefits of Social Security and the creation and growth of Medicare. Taxes rose from 2.9% of GDP in 1962 to 6.1% of GDP in 1982 and have stayed relatively constant since then, equaling 5.9% of GDP in 2024.

Corporate tax revenues have generally declined as a share of GDP over time, reflecting several factors, including tax policy changes as well as a secular shift of business activity out of the corporate sector (Auerbach and Poterba 1987, Auerbach 2007). Revenues equaled 3.5% of GDP in 1962, rising to more than 4% in 1967 but then falling over time. The 2017 tax cuts,

which among other things reduced the corporate rate to 21% from 35%, were followed by a reduction in corporate revenues from 1.5% of GDP in 2017 to just over 1% in 2018-2020. Subsequently, revenues grew to about 1.8% of GDP in 2024.

Other revenues – including excise taxes, estate and gift taxes, custom duties, and remittance from the Federal Reserve (the last item described in Appendix II) have fallen precipitously, from 2.8% of GDP in 1962 to 1.0% in 2024. This decline has been more or less gradual and reflects, in part, the lack of an increase in the federal gasoline tax, the largest component of other revenues historically since 1993. The evisceration of the estate tax, both through policy adjustments and increasingly aggressive avoidance techniques, also contributed to the decline in revenues (Gale, Hall, and Sabelhaus 2024 Hemel and Lord 2021).

3. Deficits

The unified deficit – reported above as $1.8 trillion for FY 2024 – measures the difference between overall spending and revenues. Ignoring the obvious cyclical fluctuations for a moment, Figure 4 shows that the unified deficit gradually increased as a share of GDP in the 1960s, 1970s, and 1980s. The budget consolidation and economic growth that occurred in the 1990s contributed to declining unified deficits and then to surpluses between 1998 and 2001. Deficits returned quickly, however, peaking at 3.4% of GDP in 2004, reflecting factors including the tax cuts in 2001 and 2003 and increases in mandatory and discretionary spending. In the GFC, deficits peaked at 9.3% of GDP in 2009 and remained high until 2013. The deficit fell to 3.4% of GDP in 2017 and then rose to 4.6% in 2019, before skyrocketing to 14.3% in 2020 and 12.0% in 2021 due to the pandemic and the associated fiscal responses.

Figure 4 also shows that the unified deficit has been sensitive to cyclical fluctuations. This is due to both automatic stabilizers and discretionary policy choices. During recessions, the

budget automatically adjusts: spending rises as more people seek government benefits, while revenue falls as incomes decline, causing larger deficits than there would be otherwise. At the same time, discretionary policies often move in the same direction as the automatic stabilizers, as they did during the GFC and the pandemic.

The cyclically adjusted deficit (sometimes called the "full-employment" deficit) adjusts the figures above according to the state of the economy and the automatic stabilizers. In FY 2024, the unemployment rate averaged 4.0% and cyclically adjusted deficit equaled $2.1 trillion (7.2% of GDP) – somewhat *higher* than the unadjusted deficit and reflective of the very strong economy. As Figure 4 shows, there is a very strong correlation over time (about 96%) between the cyclically adjusted deficit and the unified deficit as a share of GDP.[7]

The primary deficit (which excludes net interest payments) is useful for understanding the extent to which current policies – as opposed to interest payments on previously accumulated debt – are contributing to the deficit and debt accumulation (see Yagan 2025). In 2024, the primary deficit was $1.07 trillion (3.7% of GDP). As shown in Figure 4, the government ran *surpluses* in the primary budget in most years from 1965 to 1974 and between 1994 and 2002, peaking in a primary surplus of 4.6% of GDP in 2000. The primary deficit peaked at 8.0% of GDP in the GFC and then hit a post-War high of 12.6% in 2020.

4. Debt

The federal government's debt (more formally, the net debt held by the public) is – to a first approximation – the total accumulation of deficits, minus surpluses, since the nation's

[7] Figure 4 shows cyclically-adjusted deficits as a share of GDP to be consistent with the other deficit concepts shown in the figure. It is more conventional to show cyclically-adjusted deficits as a share of potential GDP, as is done in Figure 18.

founding.[8] Net debt is what the government owes the public (including investors, pension funds, and domestic and foreign central banks) and is the main debt concept explored in our paper and almost all the literature. At the end of FY 2024, the net debt stood at about $28.2 trillion, or 97.8% of GDP.[9]

To examine longer-term trends, Figure 5 shows the evolution of net debt from 1790 to the present. From the nation's founding until about 1980, debt as a share of the economy rose only when we were at war or in recession, and only temporarily. After a war or recession ended, the debt-GDP ratio fell rapidly as policy makers ran primary surpluses and interest rates stayed low.

Starting in 1981, Ronald Reagan's tax cuts and defense spending increases led to an increase in the debt-GDP ratio for the first time during peacetime prosperity. A series of tax increases and budget deals from 1990 to 1997, along with the "peace dividend" associated with the breakup of the Soviet Union, helped turn persistent deficits into surpluses by the end of the century. More generally, between 1984 and 2003, legislators partially offset fluctuations in the short-term deficit or surplus. In the ensuing 20 years, however, the systematic responses to short-term fluctuations in deficits disappeared, even as economic events also pushed debt higher (Auerbach and Yagan 2025). From 2001 to 2007, a series of tax cuts and mandatory and

[8] The link is not exact because of the treatment of federal credit programs and the existence of "below the line" financing (or "means of financing"). These items are discussed in the Appendix.

[9] Some commentators persist in using gross debt as a measure of the government's fiscal position Gross debt is a legal concept that is devoid of economic content. It is the sum of net debt *plus* intragovernmental debt. Intragovernmental debt is what one part of the government owes to another part. It is essentially equal to *prior surpluses* – not deficits – that have accrued in various government trust funds in the past. For example, if the Social Security program runs an operating surplus in a given year, the surplus is deposited in an account (sometimes referred to as "the Social Security Trust Fund") at the Treasury Department, which legally owes Social Security a repayment of that loan in the future. As a result, if payroll tax revenues rise by a dollar – typically thought of as helping reduce the long-term fiscal problem – the net debt falls as expected but gross debt does not change because intragovernmental transfers rise by the same amount as the net debt falls. To be clear, although it is appropriate to include future social security benefits and taxes in a comprehensive fiscal outlook – as we do by looking at long-term outcomes – it is worth noting that the part of future Social Security obligations captured by the gross debt figure is the part that has actually been pre-paid, not the unfunded liability. At the end of FY 2024, the gross debt totaled $35.2 trillion (122% of GDP), about 25% larger than net debt.

discretionary spending increases kept the debt-GDP ratio roughly constant – when it otherwise would have fallen to about zero (Auerbach and Gale 2009, CBO 2001).

The GFC and associated policies boosted debt substantially, and then the COVID pandemic and fiscal responses caused debt to rise sharply again. The debt-GDP ratio jumped from 39% in 2008 to 70% by 2012, and from 79% in 2019 to 98% in 2020, and has hovered at that level since then. These two large jumps in the debt-GDP ratio were sizable but not unprecedented. The ratio rose by 30 percentage points over three years when the U.S. faced World War I coupled with the 1918 flu pandemic, and it rose by 64 percentage points over six years around World War II. A major difference from earlier periods, however, is that the recent jumps were followed by relative stability of the debt-GDP ratio rather than a rapid fall.

Figure 5 also shows debt (as a percent of GDP) held by foreigners and by the Federal Reserve, both of which are part of the net debt held by the public. Foreign holdings of debt were low in 1970, about 1.8% of GDP, and rose gradually through 2007, when it equaled 16% of GDP. In response to the GFC and a general flight to safety, foreign holdings rose to 34% of GDP in 2012 through 2014. Since then, it has fallen to 29% of GDP. As a share of outstanding debt, debt held by foreigners was usually between 14% and 18% in the years 1970 and 1994, with some fluctuation. In 1999, it reached 34.2% and grew through the 2000s to reach 48.3% in 2008. Since then, it has declined steadily to about 30% in 2024.

Debt held by the Federal Reserve was consistently below 5% of GDP from 1970 to 2000, rose slightly through 2007 and then jumped to 10.5% of GDP in 2011, and 15.6% by 2014, related to the Fed's Quantitative Easing initiatives. Fed holdings jumped to 26.5% of GDP in the 2021 due to further QE policies in response to the COVID pandemic. It has since fallen to about 16.0%. The Fed monetized a substantial share of new debt during 2013 and 2014, when its

holdings rose by 78% of the overall rise in debt, and in 2020 and 2021, when its holdings rose by 59% of the overall rise in debt.

5. How did we get here?

Taking stock of the previous major tax, spending, and economic changes in this century, it is natural to ask how the nation got to its current fiscal position. More specifically, how did the budget projection go from projections of declining and vanishing debt in 2001 to projections of high and inexorably rising debt now? As with so many economic issues, the question depends on the relevant counterfactual scenario and the time frame. Here, we offer a variety of perspectives on this issue.

First, looking at tax and spending figures, in 2024, relative to 2001 and as a share of GDP, mandatory spending was higher by about 4.5 percentage points and taxes were lower by about 1.8 percentage points, while discretionary spending (including defense) was about the same value in both years. While this comparison clearly identifies mandatory spending and tax revenues as the two major components of budget swings, interpretation is not always straightforward. First, scaling relative to GDP may not be the most informative approach. For example, the elderly population has grown dramatically relative to the rest of the population over the last 25 years, which will naturally boost costs for Social Security and Medicare, the two largest entitlement programs (U.S. Census Bureau 2023). More generally, the comparison does not distinguish between changes that were "baked into the cake" and those resulting from policy changes.

Another way to parse the evolution of revenues and spending is to distinguish between the programs financed by payroll taxes and the rest of the government. Figure 6 shows that payroll taxes have risen gradually over time and spending on the related programs closely

mirrored revenues until the early part of this century, beginning with the creation of Medicare part D. Over the past 15 years, Social Security and Medicare spending (net of offsetting receipts) has far outstripped dedicated payroll taxes, even as those taxes rose. In contrast, over the past 60 years, other revenue and other non-interest spending has gyrated with cyclical fluctuations but has generally fallen.[10]

Looking at the debt-GDP ratio directly, the ratio was well within historical norms before rising dramatically due to the GFC, the COVID pandemic, and associated policies. Figure 7 shows how debt-GDP projections under the CBO's current-law baseline rose over time. The rise between 2001 and 2008 was primary due to policy – the 2001 and 2003 tax cuts, the war in Iraq and Afghanistan, and the creation of Medicare Part D (Auerbach and Gale 2009). The GFC and associated policies boosted the projected debt-GDP profile substantially by 2012. After rising gradually over the next decade, the debt-GDP profile jumped again in response to COVID and the associated fiscal policies. In short, other than a few slight reversals (not shown in Figure 6), there has been a steady upward shift in projected debt-GDP for all the reasons imaginable – tax cuts, spending increases, economic downturns, higher interest rates. Notably, the projections since 2020 show rising debt-GDP ratios while earlier projections expected debt to level off relative to GDP.

A third approach examines policy changes. The Committee for a Responsible Federal Budget (CRFB 2024a) employs a standard baseline – taxes and mandatory spending follow current law; discretionary spending is constant in real terms for 10 years and then remains a constant share of the economy. Relative to that baseline and starting from 2001, they find that

[10] Grouping other dedicated taxes, such as income taxes on social security benefits, with payroll taxes would accentuate the shift toward payroll-related taxes over time.

major tax cuts (2001, 2003, the extensions in 2012 and 2013, and 2017) account for 37 percentage points of the 98% debt-GDP ratio in 2023.[11] Discretionary spending increases and Medicare expansion account for 33 percentage points. Responses to the recessions due to the Great Financial Crisis and the COVID-19 Pandemic account for 28 percentage points of the debt-GDP ratio. In the absence of any of these policies, the debt-GDP ratio would be zero according to CRFB (assuming no differences from the actual economic trajectory, which is a standard assumption but may be particularly strong in this case because of the magnitude of the changes and the long time period involved). CRFB (2024a) also finds that if the ratio of revenues to GDP had stayed constant at its 2001 level of 18.9%, the debt-GDP ratio would have been only 50% in 2023 rather than 98%.

6. A note about labels

We close the discussion of budget trends with a comment on how government flows are labelled. In this paper, we use conventionally defined measures of taxes, spending, deficits, and debt. It is important to note, however, that these concepts are not well-defined economic constructs and that different labelling of the same cash flows would lead to different numbers, at least in the short run. For example, the payments that workers make to social security are called "taxes" and count as revenue and payments they receive in retirement are called "benefits" and count as outlays. One could instead refer to the workers' payments as loans to the government and the government's payments to retirees (and others who are eligible) as loan repayments. The result would be that official "debt" would be much larger than reported in conventional measures but no economic measure, incentive, or behavior would change. (See, for example, Auerbach,

[11] Kogan (2023) finds that those same major tax cuts added 38 percentage points to the debt-GDP ratio by 2023. See also Blahous (2013), who notes that the roots of recent and projected expansion of Social Security and Medicare payments reside in legislation enacted decades ago.

Gokhale, and Kotlikoff 1991.)

There are similar issues on the tax side. A major "innovation" in tax policy over recent decades has been the gradual shift from traditional retirement saving accounts to so-called Roth accounts. While traditional accounts provide an up-front tax benefit and impose tax on eventual withdrawals, the corresponding Roth accounts provide no tax benefit when contributions are made but make withdrawals tax exempt. (Both types of accounts allow tax-free accrual.) While the tax benefits of the two types of accounts are comparable in present value (depending on the tax rates individuals face when contributing versus withdrawing), the deferred timing of tax benefits for Roth accounts induces a shift to later years in the timing of the associated deficit increases.

We address these shortcomings of the standard data to some extent by examining the long-term trends. In the long term, for example, the implicit future liabilities created by Social Security and Medicare obligations (which don't show up as publicly held debt in the current year) eventually turn into future benefit payments (which do affect publicly-held debt in the future); likewise with the cost of tax exemption of withdrawals from Roth accounts. However, anything short of an infinite-horizon calculation still leaves some differences in the estimated costs of spending and tax policies that are economically equivalent, because of shifts beyond the terminal period of any finite budget window.

B. Budget Procedures

Budget outcomes are generated by processes and rules that are simple in principle but often become complicated in practice.

1. Budget Process

In principle, the "budget process" works as follows (U.S. House Committee on the

Budget n.d.). In February, the president submits a budget for the next fiscal year to Congress, proposing levels for spending on discretionary programs and changes to the laws regarding taxes and mandatory spending. The president's Budget Director and other top officials promote the budget at Congressional hearings. By April 15, Congress enacts a budget resolution that sets congressional targets for the overall level of taxes, mandatory spending, and each of 12 discretionary spending categories. Each chamber of Congress passes 12 appropriations bills to fund discretionary programs, as well as any bills that would change revenue or spending on mandatory programs. The House and Senate reconcile each of these bills, after which each chamber passes the conference report, and the president signs the budget into law – all by September 30, in advance of the October 1 start of the fiscal year.

In practice, the process almost never works that way and is routinely described as "broken." Congress designed this process in 1974 as part of the Congressional Budget Act (formally, the Congressional Budget and Impoundment Control Act of 1974), which also created the Congressional Budget Office and the House and Senate Budget Committees. Since then, in only four years has Congress passed all of the appropriations bills for discretionary spending – the minimum requirement for a budget, since laws for taxes and mandatory spending are already on the books (DeSilver 2023). In most years since 2009, Congress has not even passed a budget resolution (DeSilver 2023). In some years, Congress combines some or all the discretionary spending proposals into an "omnibus appropriations bill." Alternatively, the president and Congress can enact a short-term "continuing resolution" to fund the discretionary part of the government, typically at the previous year's levels, until they agree on spending levels. There have been 61 continuing resolutions in the last fifteen years (Aherne et al. 2025).

2. Shutdowns

If no such measures are enacted, the federal government "shuts down." Shutdowns affect a wide variety of government agencies, with hundreds of thousands of federal workers furloughed (Gale 2023). Crucial services like defense, border protection, and air traffic control continue to operate, but, for example, air travel could still be negatively affected by reductions in operating or security staff at airports.

Shutdowns are not a new phenomenon. There were lengthy shutdowns in 1995-1996, 2013, and 2018-2019 (CRFB 2025a). There have been more than 20 shutdowns in the last 50 years (Zaveri et al 2019).

Oftentimes, the budget impasses that lead to shutdowns are focused on one particular area. In 2019, for example, the programs that needed to be authorized cost more than $300 billion per year (CBO 2019). By contrast, the fiscal divide between the first Trump Administration and Congress over funding for a border wall – the item that was holding up agreement – was about $4 billion (Lind 2019).

Shutdowns do not provide net savings for the government. Ultimately, they end up costing the government more than regular operations, because there are losses from uncollected fees, expenses related to execution of contingency plans, compensation for non-working federal employees, plus all the time and effort that agencies have to spend preparing shutdown and contingency plans (CRFB 2025a). In past shutdowns, federal workers have received pay for time lost and they are now guaranteed backpay (CRFB 2025a).

Shutdowns can hurt the economy. The 2013 shutdown, which lasted 16 days, reduced GDP by $24 billion according to a Standard and Poor's estimate (Kille 2013). The confidence-sapping effect on the public was probably far larger. In a Gallup survey taken during the 2013 shutdown, 33 percent of Americans cited dissatisfaction with government and elected officials as

the nation's top issue – the highest percentage since the organization began polling in 1939 — and double the 16 percent figure when the government was open just a month before (Newport 2013).[12]

3. Debt Limits

A different kind of budget showdown sometimes occurs over the "debt ceiling" – the legal limit on the debt the government can accumulate (Burman and Gale 2023). Until World War I, every issuance of government debt required Congressional approval. During the war, President Wilson and Congress eliminated that rule and created an overall limit to make it easier to finance the mobilization. Since then, Democratic and Republican presidents and Congresses have raised or suspended the debt ceiling more than 100 times, including 90 times since 1959 and 21 since 2001 (Peter G. Peterson Foundation 2025a). Congress usually raises or suspends (i.e., temporarily abolishes) the ceiling before the limit is reached, but the party out of power often dissents.

The debt limit is often misunderstood. First, for historical and legal reasons, it applies to "gross debt." As noted above, there is no economic content to the gross debt measure, so it does not seem to be a useful yardstick for policy makers. A second issue is that voters often assume – and lawmakers often assert – that a vote to raise the debt ceiling is a vote for more red ink. In fact, however, raising the debt limit is about paying for past choices. The government cannot spend money without prior Congressional approval.

[12] One option to avoid the costs and uncertainties of future government shutdowns is to create automatic continuing resolutions, which would take effect if there were no legislated changes. This is, in fact, how tax policy and mandatory spending already function. This idea has received support from politicians with as diverse views as Nancy Pelosi and Chuck Grassley (Gale 2019a). The biggest issue in an ACR is what the default level of spending would be – for example, whether it would be constant in nominal terms or adjusted for inflation, population growth, or other factors.

Notably, when Congress authorizes new spending and new taxes, it does not automatically authorize the borrowing needed to make up any shortfall.[13] This can put the government in an impossible situation – it is required to spend a certain amount but not allowed to raise the financing to pay for it. In short, debt limit debates are about whether Congress should authorize the government to borrow to pay for spending that *Congress has previously authorized*. Among other advanced countries, only Denmark has a separate debt limit rule – and it is an administrative issue that is not politically-charged.[14]

If government debt approaches the ceiling, the Treasury Department can typically use any of several accounting gimmicks, such as delaying contributions to federal retirement funds, to postpone the day of reckoning. But these typically last only a few months and then the government would have to default on interest payments or other obligations – e.g., military pay, tax refunds, or safety net payments. The economic consequences of a large-scale, intentional default are unknown, in part because it is unclear which payments would be missed first, but the disagreement ranges from whether it would be a financial market problem or would plunge the global economy into recession (Driessen 2025). Note that a default on government debt, which would happen if the government ran out of ways to evade the debt ceiling, is different from a government shutdown, which happens when a budget is not approved, and neither implies the existence of the other.

4. Reconciliation

[13] At various points since 1980, the House of Representatives did automatically authorize the needed debt payments along with the passage of a non-binding congressional budget through the so-called" Gephardt rule." In 2019-2020, a modified version of the rule automatically suspended the debt limit with just the House's passage of a non-binding congressional budget. The rule was repealed in 2023 (Heniff Jr. 2023).

[14] At the end of 2024, Denmark's outstanding debt was only 11% of the debt ceiling (Denmark National Bank 2025, Kirkegaard 2011). The ceiling was created in the 1990s as part of process to transfer day-to-day responsibilities for debt management to the central bank from the Ministry of Finance (Risen 2013).

The Congressional Budget and Impoundment Control Act of 1974 ("Congressional Budget Act") also created a special legislative process called "reconciliation," which was originally used to make deficit reduction proposals but has been co-opted by both parties to increase deficits (Gorman 2025).

For a bill to pass the Senate under its normal procedures, referred to as "regular order," it needs support from at least 60 Senators in order to rule out a filibuster. The reconciliation process allows bills to pass with a simple majority, subject to several important constraints. To begin the process, Congress must adopt a budget resolution (which, as noted above, is an infrequent occurrence) that sets overall spending and revenue targets for the fiscal year (CRFB 2024b). The budget resolution determines the size of any spending or tax changes in the reconciliation bill.

The reconciliation bill faces several additional constraints, collectively referred to as the Byrd rule, after the former Senator from West Virginia who crafted its provisions (Heniff Jr. 2022). First, it must contain only provisions that are budget-focused. For example, abortion legislation cannot be in a reconciliation bill.[15] Second, it cannot address social security. Third, it cannot raise the deficits beyond 10 years. Note, for now, that "raising deficits" requires a baseline specification, an issue we will revisit in the next section. Enforcement of these rules is provided by the Senate's appointed parliamentarian, and any Senator can raise a point of order that can strip the bill of particular provision, without endangering the rest of the proposal.[16]

[15] In 2017, Republicans wanted to repeal the penalty enacted in the Affordable Care Act for not having health insurance. Under reconciliation rules, the legislation could set the penalty to zero (which reduced revenues) but could not repeal the penalty from the law because repealing the law would have no budget effect, given the reduction in penalty rate to zero.

[16] The review process to determine which provisions violate the rules is referred to as a "Byrd bath" and the provisions found to be in violation are "Byrd droppings."

Although these rules only govern Senate legislation, they effectively constrain the House of Representatives as well, since legislation must be passed by both chambers.

"Folk wisdom" maintains that reconciliation was originally intended to make it easier to enact deficit-*reduction* policies.[17] Certainly, a primary goal of the Congressional Budget Act was for Congress to consider the overall economic impact of federal expenditures and revenue each year and to know the size of the federal deficit or surplus (Rosenbaum 1974; Ervin, Muskie, and Percy 1974; Rich 1974). Conservative Senators even tried to include a provision to ensure that there would never be a federal deficit (Rosenbaum 1974). Nevertheless, there is no legislative stipulation that reconciliation legislation must reduce deficits (CRFB 2025a). Indeed, it can raise deficits in the first 10 years by as much as the budget resolution allows. In 2007, the Senate prohibited reconciliation legislation from raising the deficit ("the Conrad rule"), but the rule was repealed in 2016 (CRFB 2024b).

Although reconciliation was used exclusively to reduce deficits in the first 25 years after the Budget Act, every president since George W. Bush has entered office with party majorities in both houses of Congress, but fewer than 60 seats in the Senate and has used reconciliation to enact legislation (Horney 2005; Lynch 2022). In every Administration except Obama's, reconciliation legislation has increased the deficit. This includes the 2001 and 2003 tax cuts, the 2017 tax cuts, the American Rescue Plan of 2021, the Inflation Reduction Act of 2022 and the One Big Beautiful Bill Act of 2025. The last major tax bill to be enacted outside of reconciliation was the American Tax Relief Act of 2012, which made permanent almost all the 2001 and 2003 Bush tax cuts (and was actually passed in 2013, after the tax cuts had expired, so that not

[17] See, for example, references to this point from the Center for American Progress, the Committee for a Responsible Federal Budget, and the Heritage Foundation, (Berger, Hanlon, and Hendricks 2018; CRFB 2024b; The Heritage Foundation 2025).

extending the tax rate cut in the highest bracket was presented as not counting as a violation of the "No New Taxes" pledge adopted by many Republicans) (Peter G. Peterson Foundation 2025b; Lynch 2022; Tax Policy Center 2024a).

During the legislative process to enact OBBBA, Republicans used the "current policy" baseline rather than the "current law" baseline to bypass the limitation on raising the deficit beyond 10 years. They used this to claim that extending tax cuts from the TCJA would not increase the deficit (CRFB 2025a; Andara et al. 2025). This breaks decades-old budget law precedent (Andara et al. 2025). If this is taken as new precedent, it seems any deficit-increasing policy could be introduced as a temporary provision, and then subsequently extended with "no" fiscal consequence.

5. Budget Rules

Since the 1980s, the federal government has adopted various statutory budget rules to impose discipline on fiscal policy. These rules have taken different forms and have had varying degrees of durability and effectiveness, although the latter is a challenge to measure, because it is difficult to separate the effects of budget rules themselves from the effects of the underlying politics that led to the adoption of the rules (Auerbach 2008).

Gramm-Rudman-Hollings (GRH) legislation, enacted in 1985, sought to gradually reduce the deficit to zero by 1991 through a series of declining annual deficit targets. If the deficit exceeded the target, across-the-board spending cuts (except for Social Security, certain low-income programs, and net interest) would automatically occur via sequestration (P.L. 99-177 1985). However, the deficit targets became increasingly unattainable due to economic changes, which meant that the implied required sequestration amounts grew too large to be politically palatable.

After several upward adjustments to deficit targets, the law was abandoned in the Budget Enforcement Act of 1990, which instead imposed caps on discretionary spending and created so-called "Pay as you go" (PAYGO) rules requiring that any new mandatory spending or tax cuts had to be offset by increases in revenue or cuts in entitlement spending (Tax Policy Center 2024c). These rules were generally viewed as more credible than GRH, because they applied to aggregates that the political leaders at the committee level could control and related only to policy-induced deficit increases, rather than those due to economic or demographic changes. The rules were extended in 1993 and 1997 but expired in 2002 (Kell 2004).

In 2011, policy makers imposed caps on discretionary spending for the subsequent decade and created a "Super Committee" to address the deficit (CRFB 2011). The Super Committee's failure to reach agreement triggered a sequester – automatic, across-the-board spending reductions – starting in 2013 (CRFB 2013). In subsequent years, Congress repeatedly raised or modified the caps.

In 2011 and 2023, Republican majorities implemented cut-as-you-go (CUTGO) rules that require that legislation that increases mandatory spending must be offset by reductions in mandatory spending only, not increases in taxes. CUTGO was kept in 2025 for the 119th Congress. Additionally, the Fiscal Responsibility Act of 2023 imposed caps on discretionary spending for FY2024 and FY2025 (but not after that).

In summary, budget rules appear to work best – or at least to remain in effect longer – when they apply to things that policy makers can control and when they are used to enforce agreements that have already been reached (Auerbach 2008). For example, the PAYGO rules enacted in the 1990 budget deal and extended through the early 2000s required policy makers to pay for new mandatory programs. Since, in each chamber, the committee that handles taxes also

handles mandatory spending, the rules applied to items policy makers could control. The rules also enforced an agreed- upon bipartisan framework for tax increases and spending cuts. Budget outcomes improved substantially over the 1990s, although how much of this improvement was due to the budget rules themselves is hard to know.

But budget rules do not work if they stipulate limits on items – such as the overall deficit -- that political leaders cannot control in the first place. The inability of the Gramm-Rudman-Hollings legislation to make Congress reach deficit targets in the 1980s and its rather rapid replacement is a good example of both points. Nor can budget rules force lawmakers to do things they don't want to do. The expiration of BEA rules in 2002 followed a brief period of budget surpluses and coincided with a sharp shift in fiscal policy, with large tax cuts, the creation of Medicare Part D, and wars in Iraq and Afghanistan (Kell 2004). Either the lack of binding enforcement mechanisms led to major deficit-financed policy expansions or policy makers' desire to cut taxes and raise spending led to the demise of the budget rules. As former CBO director Rudolph Penner once stated about budget issues, "the process isn't the problem, the problem is the problem" (Washington Post 1984).

III. Projections

A. Constructing Baselines

We examine three baselines, to provide perspective on the recent budget outlook, how it has changed with the passage of the OBBBA, and how it would evolve if temporary provisions of OBBBA are made permanent.[18] These projections provide point estimates of future budget outcomes. Those outcomes, however, are inherently uncertain, and we provide sensitivity

[18] Appendix Tables 1, 2, and 3 provide details on the key budgetary aggregates – in billions of dollars and as a percentage of GDP – in the three baselines.

analysis below. Because the standard budget window is 10 years – but we want to examine longer periods as well – we distinguish how we generate projections over the next decade and over the next 30 years.

1. Ten-year outlook

The March 2025 current-law baseline (hereafter, March 2025) is simply the long-term projections made this past March by the Congressional Budget Office (2025i). All revenue, non-interest outlays, and interest payments are taken directly from that document, which provides a measure of budget projections before OBBBA was enacted. OBBBA is described further in Appendix I.

The "July 2025 current-law" baseline (hereafter, July 2025) incorporates the effects of the OBBBA as legislated. We obtain projections of the change in revenues and non-interest outlays from CBO (2025d), and the change in interest payments from CBO (2025c).

These two sets of current-law projections assume – by law and convention – that Congress does (almost) nothing in the way of new programs or tax changes for the next 10 years. Current-law projections serve an important purpose – they show where the government is headed in the absence of almost any action. Notably, however, current-law projections assume that if the Social Security, Disability, and Medicare (part A) trust funds are exhausted, Congress will (a) authorize full payment of promised benefits and (b) cover any shortfalls with general revenue.[19]

Another way to proceed, however, is to ask where the government is headed if policy makers continue to make choices like they have in the past. Constructing a baseline along these lines – typically characterized as "current policy" – clearly requires judgment calls to project the

[19] The current-law projections also do assume that Congress increases or suspends the debt limit as needed to carry out the tax and spending programs in the baseline, that temporary entitlement programs (like SNAP and TANF) are reauthorized on schedule, and that outlays for discretionary spending programs remain constant in real terms over the decade, unless such authority is governed by a specific law.

consequences of Congress following a "business as usual" approach.

Our third baseline – "current policy" – differs from the July 2025 current-law baseline in that we assume the temporary provisions of OBBBA regarding taxes and outlays are made permanent. On the revenue side, expiring provisions include the reduced taxes on tips, overtime, seniors, and car loans; expensing of investment in factories; and the expanded limit on the state and local deduction. For outlays, the increases in military and border security spending were enacted only on a temporary basis. Revenue estimates for making the temporary tax provisions permanent, as well as the accompanying increase in net interest payments come from CBO (2025c). For discretionary spending adjustments, we identify the year for each relevant subsection when the legislated increase in spending peaks as a share of GDP. We then assume that the increase (as a share of GDP) is sustained in each subsequent year until 2034. We use the CBO net interest workbook (CBO 2025f) to calculate the increase in debt service costs for the spending adjustments.

2. 30-year outlook

Looking only at the next 10 years gives an incomplete picture of the fiscal outlook, even with adjustments made to characterize current policy. In practice, projections covering 30 years are generally sufficient to capture most long-term trends. For the years 2035 to 2054, the March 2025 baseline projections are based entirely on data from CBO's long-term outlook (CBO 2025i). For both the July 2025 baseline and current policy projections, we assume that revenue and mandatory spending grow at the same rate from 2035 to 2054 as in the March 2025 baseline, but their values in 2034 and beyond differ from the March 2025 baseline due to the budgetary effects of OBBBA as enacted or made permanent.

In both the July 2025 baseline and the current policy baseline, we assume that in years

after 2034, discretionary spending remains at its 2034 share of GDP. This is a slight difference from the March 2025 baseline. Under its long-term budget outlook, CBO (2025i) projects that discretionary spending will continue to decline as a share of GDP until 2039, at which time it will equal 5.1 percent of GDP, and then remain a constant share of GDP through 2054. Under the July 2025 and current policy baselines, discretionary spending in 2034 is 5.4 and 5.6 percent of GDP, respectively, and remains at those levels through 2054 (See Appendix Figures 1 and 2 for a comparison of discretionary spending across the three baselines.)

To calculate interest payments after the 10-year window, we note that in the March 2025 baseline, the figures come directly from CBO (2025i). To calculate the change in net interest payments for 2035-2054 in the July and current policy baselines relative to the March baseline, we first calculate the average interest rate on government debt, using parameters from the March 2025 projections. The average interest rate is defined as the ratio of (a) net interest payments in a given year to (b) the sum of (a) half of the primary deficit in that year plus (ii) debt at the end of the previous year, where debt and the primary deficit are taken from the March baseline.[20] Then, to calculate interest payments in the July and current policy baselines, we multiply the calculated average interest rate by the sum of the previous year's debt and half the current year's primary deficit in those baselines. With interest payments calculated, we can calculate the unified deficit (as the primary deficit plus net interest), and the current year's debt (as the previous year's debt plus the current year's unified deficit). Note that by not adjusting interest rates for higher debt, we may be underestimating the fiscal shortfall. We address this issue in sensitivity analysis.

B. Economic Projections

[20] We use half of the primary deficit to approximate the fact that interest is paid continually through the year, not just at the beginning or end. Omitting the current year's primary deficit from the denominator would overstate the interest rate in that year; including the entire primary deficit would understate the interest rate in that year.

Figure 8 shows that the average nominal interest rate is projected to rise gradually and remain below the nominal growth rate until the mid-2040s and then to exceed the growth rate in subsequent years. This growth in the interest rate in CBO's economic forecast is at least partially attributable to the rising debt-GDP ratio, because CBO models the interest rate as being increased by the debt-GDP ratio. The average nominal government interest rate is below the nominal growth rate by about 1.2 percentage points in 2025 and exceeds the nominal economic growth rate by 0.19 percentage points in 2054. These economic projections help drive the budget outcomes discussed below, where we also provide sensitivity analysis.

C. The July 25 Current-Law Baseline

We present a summary of the outcomes under each baseline in Table 1. Under the July 25 current-law baseline, revenues are 16.7% of GDP in 2025. Already off their 2022 peak of 19.2%, revenues fall to 16.3% of GDP by 2026 before rebounding to 17.0% by 2034 and eventually to 18.0% of GDP in 2054 (Figure 9). This is driven by the income tax, where revenues rise after 2028 due to the expiration of provisions in the OBBBA and in the long term due to real bracket creep.

Non-interest spending is 19.7% of GDP in 2025, staying relatively constant through 2034 and subsequently rising to 20.9% of GDP in 2054 (Figure 10).

The primary deficit is 3.0% of GDP in 2025, increases to 3.8 the following year, and declines to 2.8% by 2034 and remains roughly at that level for the subsequent 20 years (Figure 11). This long uninterrupted stretch of large primary deficits is unprecedented in U.S. history and implies that the government budget is fundamentally out of balance.

Net interest payments grow steadily as a share of the economy over the next 10 years, from 3.2% of GDP in 2025 to 4.3% in 2034 and 6.3% by 2054 (Figure 12). By comparison, the

previous peak historical share of net interest in the economy was 3.2% in 1991. Unified deficits, which combine the effects of primary deficits and net interest payments, are 6.1% of GDP in 2025, 7.1% in 2034, and then reach 9.1% in 2054 under current law (Figure 13).

Figure 14 provides more detail on the composition of spending as a share of GDP under the current-law baseline. Over the next 30 years, much more than 100 percent of the increase in spending relative to GDP is due to net interest, Social Security, and Medicare. The latter two program are rising because of population aging and because per capita health costs are rising. All other major spending categories – defense, non-defense discretionary, and other entitlements – are projected to shrink by a collective 1.2 percent of GDP through 2054. Defense will fall to its smallest share of GDP since before World War II. Non-defense discretionary spending will fall close to its lowest GDP share since at least 1962, the earliest year for which we can make consistent comparisons. Other entitlements – largely programs that comprise the "safety net" beyond Social Security and Medicare – will fall from 5.2 percent of GDP in 2025 to 4.3 percent in 2054.

As Figure 15 shows, with primary deficits that decline slightly over time as a share of GDP, more than 100% of the increase in the unified deficit through 2054 is due to increases in net interest payments.

Debt is projected to be 100% of GDP at the end of 2025 and 127% at the end of 2034 (Figure 16). After 2034, debt accumulates more rapidly and reaches 183% in 2054, due to both positive primary deficits and rising interest payments.

D. Comparisons with the March 2025 Current-Law Baseline

The differences between the March 2025 baseline and the July 2025 baseline reflect solely the budgetary effects of OBBBA (CBO 2025d) and the differences in discretionary

spending described above.[21] Over the 2025 to 2034 period, the July 2025 baseline projects $1.2 trillion less in outlays and $4.6 trillion less in revenues than the March 2025 baseline.[22]

Over the 30-year horizon, the July 2025 projections show a substantial increase in debt relative to the March 2025 projections. Projected debt in 2054 was 154% of GDP in the March 2025 baseline compared to 183% in the July 2025 baseline, in both cases significantly higher than the projected debt in 2034 of 117% and 127% respectively.

E. Current Law Versus Current Policy

While comparing the March 2025 and July 2025 current-law baselines shows the impact of OBBBA as legislated, comparing the July 2025 baseline to the current policy projections shows the impact of making the temporary changes in OBBBA permanent. These differences occur in the first 10 years, given our process for generating projections, but they have ramifications for longer-term outcomes as well because we assume that the differences persist.

Making the temporary provisions of the OBBBA permanent on both the revenue and spending sides causes the primary deficit to diverge from the July 2025 baseline values starting in 2028. By 2034, revenues would be just 16.6% of GDP, compared to 17.0% under current law (Figure 9); the primary deficit would rise to 3.4% of GDP and interest payments would rise to 4.4% of GDP, compared to 3.0% and 4.3%, respectively, under current law (Figures 11 and 12). Under current policy, the 2034 debt-GDP ratio would not be that different – be 130% compared to 127% under current law (Figure 16).

---

[21] We use conventional budget scores here, which hold macroeconomic variables constant. CBO (2025g) estimates that the deficit under their dynamic score for OBBBA, accounting for the impact on growth and interest rates, is actually larger than the conventional score, because the increase in interest rates and thus net interest payments induced by the higher budget deficits outweighs the positive revenue effect of OBBBA through increased growth.

[22] CBO estimates a total revenue reduction of $4.5 trillion, and a total outlay decrease of $1.1 trillion. Although our estimated deficit is, by construction, exactly the same as CBO's, we limit revenue effects to the tax changes in Title VII of OBBBA. Other changes, which CBO counts under its revenue effects but ultimately relate to mandatory or discretionary spending programs, are categorized accordingly in our model.

However, the longer-term effects are more substantial. Under current policy, the 2054 debt-GDP ratio would be 199% compared to 183% under current law (Figure 16). By 2054, revenues would be 17.6% of GDP, compared to 18.0% under current law (Figure 9); the primary deficit would rise to 3.5% of GDP and interest payments would rise to 6.9% of GDP, compared to 2.8% and 6.3%, respectively, under current law (Figures 11 and 12).

The current-policy projections are conservative in using the same interest rate assumptions as the current-law projections; our sensitivity analysis below underscores that any upward impact of higher debt in the current-policy projections on interest rates would raise debt by additional amounts.

E. Extensions and Sensitivity Analysis

1. Cyclically Adjusted Deficits

Figure 17 shows that projected actual GDP and potential GDP are close to each other in the second half of the budget window, consistent with the CBO convention of not including business cycle fluctuations in its economic forecast once short-term adjustments have played out. The ratio of actual to potential GDP over that period is 0.995. Using the approximate relationship between the output gap and the size of automatic stabilizers reported by CBO, we report historical and projected future cyclically adjusted deficits in Figure 18 (CBO 2024b).[23] Projected cyclically adjusted deficits would be high and persistent relative to historical values outside the

[23]CBO (2024b) reports the cyclically adjusted deficit, the output gap, and the size of automatic stabilizers (all as a share of GDP) for historical data from 1965-2023 and for projected data for 2024-2034. Regressing the size of automatic stabilizers on the output gap yields a coefficient of about 0.4 (with a t-statistic of about 50), for a sample using the historical data, the projected data, or the combined data (with or without a constant term, which is estimated very precisely to be zero). We use the historical data on cyclically adjusted deficits for 2000-2023. For 2024-2035 we use CBO (2024a), data on actual GDP in 2024, projected GDP for 2025-2035 and estimates of potential GDP for 2025-2035. We estimate the output gap for each year, apply the coefficient noted above to generate the size of automatic stabilizers in that year, which we subtract from the projected unified deficit to generate an estimate of the cyclically adjusted deficit.

GFC and the COVID pandemic. At the end of the budget window, we estimate a cyclically adjusted deficit of about 6.8% of GDP.

2. Variation in Economic Parameters

The projections above are sensitive to a variety of economic parameters (Table 2). CBO (2025j) reports the sensitivity of the budget projections over a 30-year horizon for the March 2025 Long Term Budget Outlook.[24] For example, if total factor productivity in the non-farm business sector were 0.5 percentage points higher than in the baseline, federal debt would be 41 percent of GDP lower by 2054 relative to the current-law projections. If the average nominal government interest rate were boosted by a differential starting at 5 basis points in 2025 and rising by 5 basis points each year (before macroeconomic responses), 2054 debt would increase by 43% of GDP, again relative to the current-law projections. If a dollar of public debt crowds out twice as much private investment as CBO has typically assumed (that is, 66 cents per dollar instead of the typical 33 cents assumption), the debt-GDP ratio would increase by more than 95.8 percentage points relative to the March 2025 current law baseline by 2054.

We provide further sensitivity analysis in Table 2, focusing on interest rates. If the average nominal interest rate paid by the government were to remain constant through 2054 at the 2025 level projected in the March 2025 outlook, debt would rise to 176% of GDP by 2054 and net interest payments would rise to 5.6% of GDP. These figures are lower than the 183% debt-GDP ratio and 6.2% net interest-to-GDP ratio projected under the current-law baseline with CBO's interest rates, but they are still substantially higher than the levels prevailing in 2025.

Alternatively, if we assume that the additional debt from OBBBA feeds back into interest rates, debt accumulates more rapidly. Using recent estimates from the literature (Gust and

[24] CBO (2025k) provides sensitivity analysis over a 10-year horizon.

Skaperdas 2024; Neveu and Schafer 2024; Plante, Richter and Zubairy 2025; Furceri, Gonclaves, and Li 2025), we allow interest rates to rise by 3 basis points per each 1 percentage point increase in debt-GDP over the March 2025 baseline. In that scenario, for the July 2025 current-law baseline, debt/GDP would reach 199% by 2054, compared to 182% using the March 2025 interest rates. Interest rates would reach 4.0% in 2054, causing interest payments to rise to 7.0% of GDP. Under current policy, debt-GDP would reach 226% in 2054 with debt-sensitive interest rates, compared to 199% with March 2025 interest rates. Interest rates would rise to 4.4% by 2054 and interest payments would reach 8.9% of GDP.

3. Tariffs

Our analysis incorporates projections for tariffs that are contained in the March 2025 baseline. Since then, of course, President Trump has given tariffs an elevated role. Tariff revenue has risen from about $7 billion per month in 2024 to about $25 billion currently (CRFB 2025b). If they remain in place, the Administration's tariffs could raise additional substantial revenue – between $2 trillion and $3 trillion (0.6% to 0.8% of GDP) between 2025 and 2034 on a conventional scoring basis, though less on a dynamic basis.[25] Raising annual revenues on a permanent basis by between 0.6% and 0.8% of GDP would reduce the 2054 debt-GDP ratio by between 18 and 24 percentage points of GDP relative to the July 2025 or current policy baselines estimated above.

[25] Using conventional scoring techniques for 2025-2034: The Budget Lab (2025) projects that tariffs enacted through August 6, 2025, will raise $2.6 trillion (0.7% of GDP); CRFB (2025b) estimates that tariffs enacted through August 7, 2025, will generate $2.8 trillion (0.8% of GDP); and Tax Foundation (York and Durante 2025) estimates in July show tariffs raising revenues by $2.3 trillion (0.6% of GDP). Other conventional scores use different budget windows. CBO (2025a) projects that tariffs enacted through August 19, 2025, will raise $3.3 trillion (0.8% of GDP) using a window of 2025 to 2035. Tax Policy Center (2025) projects that tariffs through August 18, 2025, will raise $2.9 trillion (0.8% of GDP) using a budget window of 2026 to 2035. Dynamic scores by The Budget Lab (2025), CRFB (2025b), and the Tax Foundation (York and Durante 2025) show revenue effects that are between 7% and 40% smaller than the conventional scores.

The Administration's policies represent a massive shift in tariff policy. From the end of World War II through 2018, tariffs never raised more than 0.25% of GDP in revenues. Their peak since then equaled 0.35% of GDP in 2021 and 2022. That is, tariff revenue would triple, or more, under the new tariffs. In addition, the effective tariff rate (ETR), defined as the ratio of collected duties to the value of imported goods, was 2.4% in 2023 and had not exceeded 3.0% in any of the previous 30 years. The Administration's tariffs through early August, 2025, raised the ETR to around 17% or 18% (CRFB 2025b; The Budget Lab 2025; CBO 2025a).[26] By way of comparison, the Smoot-Hawley tariffs, which were enacted in 1930 and are widely credited with deepening the Great Depression (Bond et al. 2013, Crucini and Kahn 1996, 2003; Irwin 1998; Madsen 2001; Mitchener, O'Rourke and Wandschneider 2022; though see Eichengreen 1986 for counterargument), raised the ETR to a peak of 19.8% in 1933 (USITC 2024).

There are major uncertainties surrounding projections of future revenue from tariffs. In economic terms, tariffs will likely reduce output growth; indeed, they may already have (The Budget Lab 2025). It is unclear how long the U.S. can sustain tariffs at Depression-Era levels without significant economic damage. In legislative terms, tariffs, unlike most taxes, can be enacted (or cancelled) by the executive branch without any necessary Congressional action, which make them particularly unstable and sensitive to political interests (Looney and Patel 2025). In legal terms, the U.S. Trade Court has ruled many of the tariffs imposed by the Trump Administration to be illegal, though that decision is currently stayed until the appeals court issues its own decision (Romm 2025).

[26] The estimated net increase in revenues is smaller than the increase in the ETR because the revenue estimates assume that imports will decline in the presence of higher tariffs and because higher tariffs offset some revenues from income taxes and other taxes (CBO 2022).

Finally, in policy terms, there are several sources of uncertainty. First, the Administration has already demonstrated frequent adjustments in tariff policy since the beginning of the year. Second, it is unclear the extent to which the Administration (and even more so, future Administrations) seek to use tariffs as a permanent revenue source rather than as a negotiating tool that would be adjusted after achieving trade goals (such as reducing foreign trade barriers) or other, non-trade goals (such as improved border security). To the extent that tariffs are negotiable, they will be less predictable as a permanent revenue source. Third, the President and Congressional members have spoken of the possibility of rebating some of the tariff revenues to American households (Smith 2025), which would undo some of the deficit-reducing effects of the tariffs.

4. Trust Funds

The federal government runs several trust funds, most notably for Social Security (Old-Age and Survivors Insurance), Disability Insurance, Medicare (two separate funds), civilian and military retirement, and transportation spending. All the projections highlighted above integrate the trust funds into the overall budget. These projections also assume that scheduled benefit payments will be made even if trust fund balances run to zero. However, many of the trust funds are not legally allowed to pay out benefits that draw their balances below zero.

This is not just an academic concern. This trust fund constraint was one of the proximate causes of Social Security reform in 1983; the trust fund literally had almost run out of money, an eventuality that would have required cuts in promised benefits so that they would not exceed incoming revenue.

In the current projections, the Social Security (Old-Age and Survivors Insurance) Trust Fund is scheduled to be depleted by 2033 according to CBO and the Social Security trustees

(Board of Trustees, Federal Old-Age 2024; CBO 2025i). The Disability Insurance Trust Fund is not scheduled to be depleted within the 30-year budget window according to CBO, and it is projected to be able to adequately pay full benefits through the 75-year projection period, according to the Social Security trustees (CBO 2025i). The budget projections above assume that Social Security continues to pay scheduled benefits (i.e., what retirees have earned) even when the combined OASDI trust fund is exhausted, which is projected to occur in 2034. According to the CBO, the Medicare Part A (Hospital Insurance) Trust Fund appears likely to hit a similar constraint by 2052; according to the Medicare Trustees the constraint will occur in 2033 (Board of Trustees, Federal Hospital Insurance 2024; CBO 2025i).

Each of those dates may prompt at least limited fiscal action, as legislators will be forced to reduce benefits, raise taxes, make interfund transfers, or allow for general revenue funding. In contrast, the Medicare Part B (Supplementary Medical Insurance) and Part D (Prescription Drug Coverage) trust funds are designed to receive substantial general revenue funding and do not have the constraint that spending can be financed only by trust fund payments. We note that "solving" the shortfalls in Social Security and Medicare Part A through the use of general revenue funding is what is implicit in our current law and current policy projections.

F. Fiscal Gap

In addition to projecting debt and deficits over the 30-year horizon, we also present estimates of the "fiscal gap," an accounting measure that is intended to reflect the long-term budgetary status of the government (Auerbach 1994).[27] The fiscal gap answers the question: if

[27] Auerbach et al. 2003 discuss the relationship between the fiscal gap, generational accounting, accrual accounting, and other ways of accounting for government. Note that estimates of the fiscal gap do not in any way imply that level reductions as a share of GDP are the best way to achieve a given fiscal target, rather than, say, level reductions as a share of primary deficits (which in the present circumstance would imply a growing path of primary deficit reductions) or some other pattern over time. The fiscal gap measure just provides one convenient way to think about the magnitude of a fiscal shortfall, given a future fiscal goal.

one starts a policy change in a given year to reach a given fiscal target in a given future year, what is the size of the annual, constant-share-of-GDP increase in taxes or reductions in non-interest expenditures (or combination of the two) that would be required, holding projected economic performance unchanged? For example, one might ask what immediate and constant-share-of-GDP policy change would be needed to obtain some debt-GDP target in 2054.[28] Or, one might ask what constant share-of-GDP change would be required, starting in 2031 to achieve a real net interest-to-GDP ratio of 2% by 2054.

Results are presented in Table 3. We begin with current-law projections and policy actions beginning in 2026. Under those circumstances, obtaining a debt-GDP ratio in 2054 equal to its 2024 level of approximately 98% would require (ignoring any macroeconomic feedback effects) permanent tax increases or non-interest spending cuts equaling 2.87% of GDP. This would equal about $827 billion in today's economy and would be the equivalent to a sustained tax increase equal to about 34% of current income tax revenues or 17% of all current tax revenues, or a 14% reduction in current non-interest spending, or a 24% reduction in all non-interest spending other than Social Security and Medicare.

Policy makers could choose a net-interest-to-GDP target instead of a debt target. To hold 2054 interest payments equal to 3.2% of GDP – the historical maximum for this ratio, obtained in 1991 – would require policy changes equal to about 3.09% of GDP starting in 2026 under current law.

Furman and Summers (2020) argue that real net interest payments of 2% of GDP would be an appropriate target to stay below to ensure fiscal sustainability (Furman and Summers

[28] Implementing the adjustments indicated by the fiscal gap does not stabilize debt after the target year; it only adjusts tax and spending trajectories so that the debt hits a target by the target year (e.g., 2054). Under all the scenarios considered in this paper, the debt-GDP ratio would continue rising after hitting the specified target in a specified year.

2020). Achieving this goal would not require any fiscal retrenchment under a current law scenario. Furman and Summers also suggest that 150% would be an appropriate debt-GDP ratio to stay below. To achieve that target by 2054 would require spending cuts or tax increases equal to 1.11% of GDP.

As Table 3 shows, all the required policy changes to reach a given target would be larger under the current-policy scenario. Likewise, the fiscal gaps are larger if policy makers delay action, because the debt must be brought down to meet the assumed target over fewer years.[29]

IV: Effects of Higher Debt on the Economy

A. A Basic Framework

Not all debt is bad for the economy or well-being. Even in 1790, Alexander Hamilton understood that debt helps governments establish credit and trade with other nations. It gives investors a safe and liquid asset (provided the government stays solvent) and allows nations to finance their responses to emergencies, such as wars and recessions, and finance investments that will raise future living standards.

In the long run, however, federal borrowing (to finance government consumption or transfers) reduces national saving and future national output. In simple closed-economy models, all investment is financed by domestic saving, and so higher government deficits typically raise interest rates, crowd out private investment, and reduce future output.

In more realistic open-economy models, government borrowing from abroad would not necessarily increase interest rates, depress domestic investment, or reduce future output. But it would lead to an increase in the share of domestic assets held by foreign investors. As a result,

[29] Note that delaying the adjustments would still increase the size of the required adjustment even if the debt were to be brought down over 30 years, if the target date were moved later, because of the growing deficit-GDP ratio.

even if foreign borrowing does not reduce future output, it still reduces future national income for people in the domestic economy, because it raises the share of output that has to be paid to foreign investors. Notably, these effects occur gradually, even in the absence of a financial crisis, and even if interest rates do not rise.

The ability of deficit spending to boost a weak economy in the short run is not inconsistent with the long-term conclusions above. In both cases, higher deficits raise current consumption and reduce national saving. In a weak economy, the economy expands by utilizing more of its existing capacity, putting individuals back to work and getting businesses to run at their full speed. Deficits – and the tax cuts and spending increases that generate them – stimulate economic activity by tapping unutilized resources without crowding out private activity. In a strong economy, in which all resources are already utilized, the economy expands by raising its capacity – investing more in plant and equipment, human capital, and so on. In those circumstances, higher government borrowing crowds out private investment (or leads to borrowing from abroad) and so will reduce future income.

All the discussion above assumes that debt is financing transfers or government consumption. But the effects of fiscal policies on the economy depend not only on the size of the deficits, but also on the specific policies that generated those deficits. For example, both a $1 increase in public investment and a $1 tax cut would boost the deficit by $1, but the effect on future output would differ depending on the returns on the investment project or taxpayers' response to the tax cut. Considering which policies generate debt emphasizes that debt can be productive or unproductive, depending on what it's funding. Debt used to finance productive long-term investments, offset temporary revenue shortfalls, or cover temporary spending needs will likely have different effects than debt that finances transfer spending on a long-term basis.

B. Quantitative Estimates

Several studies can be used to develop quantitative estimates of how the debt trajectories projected earlier will affect GDP. Woo and Kumar (2015) used data from a sample of 79 countries from 1970 to 2007 and found that, in advanced countries, a higher initial debt-GDP ratio by10 percentage points led to slower subsequent annual growth by between 0.10 and 0.20 percentage points. The slower growth is largely due to lower investment, which implies a smaller capital stock and lower labor force productivity. Several other studies have generated similar results.[30]

Researchers have also used simulation models to gauge the impact of debt. Elmendorf and Mankiw (1999) find that reducing the debt-GNP ratio by 50 percentage points would raise net output by 3.0%. CBO (2016) finds that raising debt by 45% of GDP would reduce national income by 3%.

These studies can be used to provide rough estimates of the impact of having debt rise from around 100% of GDP currently to about 200% in 2054, as projected under the current policy baseline described above. The Woo and Kumar study implies that the annual growth rate would be between 1.0 and 2.0 percentage points lower if the debt-GDP ratio were 200% as opposed to 100%. The Elmendorf-Mankiw study implies that GNP would be 6% lower at the higher debt ratio. The CBO (2016) study suggest that 2054 GDP would be lower by 6.7% if the debt-GDP ratio were 200% rather than 100%.

[30] See, for example, Caner, Grennes, and Koehler-Geib (2010), who use data from 79 countries from 1980 to 2008; Cecchetti, Mohanty, and Zampolli (2012), who use data from 18 OECD countries for 1980 through 2005; Ursua and Wilson (2012), who use data on several advanced and emerging countries from 1950 to 2010. Each of these studies finds negative effects of added debt on growth in the range found by Woo and Kumar (2015). Chudik et al. (2015) and Baum, Checherita-Westphal, and Rother (2013) find significantly larger effects. These studies cover different time periods and different (large) collections of countries, and they employ a variety of statistical techniques to test for robustness.

Notably, these calculations represent "out of sample" estimates relating to unprecedented debt-GDP ratios and thus should be treated cautiously. But even if the impacts were significantly smaller per unit of debt, they would still indicate a sizable negative effect of debt on the economy in the long term. And it is possible that the negative effects per unit of debt rise as debt increases, due to increasing concerns about fiscal sustainability. As emphasized by Mian, Straub, and Sufi (2022), the feasibility of the government's fiscal trajectory depends in part on how additional borrowing influences the interest rate investors are willing to accept.

Other data patterns are consistent with the overall findings on debt and the economy and on the various channels at work. For example, in the post-war period, higher deficits are strongly negatively associated with lower national saving and national investment.[31] Studies also suggest that higher U.S. budget deficits generate more borrowing from abroad, with 10 to 50 percent of deficit increases reflected in higher capital inflows and thus higher trade deficits.[32]

As noted, a rise in interest rates isn't necessary for deficits to impair long-term growth, but it's one way that deficits can hurt the economy. Examining the relationship between deficits and interest rates is complicated because each factor can affect the other. But studies that take this into account show that federal borrowing raises interest rates.[33]

---

[31] Gale (2019b) finds that, controlling for the business cycle, raising deficits by 1 percent of net national product reduces both national saving and national investment by about 1 percent of NNP. The result is based of regressions of national saving and national investment on net national product (NNP), federal saving (the opposite of the deficit), and the unemployment rate, using annual data from 1950 to 2016. The effects are particularly strong in the post 1980 period, during which the impact of federal saving/NNP on national saving/NNP is 1.43 and the impact on investment/NNP is 0.98. All of the effects are highly statistically significant. Similar findings hold using GDP instead of NNP.

[32] Chinn and Ito (2007, 2008); Chinn, Eichengreen, and Ito (2014). Huntley (2014) surveyed the economic literature and finds that, as far as central tendencies are concerned, for every dollar increase in the deficit, national saving falls by 57 cents (with a range of 39 to 71 cents), capital inflows offset between 30 and 60 percent of the decline in national saving, and, as a result, national investment falls by 33 cents (with a range between 15 and 50 cents).

[33] See Gomez Cram, Kung, and Lustig (2025), Engen and Hubbard (2005); Furceri, Gonclaves, and Li (2025), Gale and Orszag (2004); Gust and Skaperdas 2024; Krishnamurthy and Vissing-Jorgensen (2012); Laubach (2009), Neveu and Schafer (2024); and Plante, Richter and Zubairy 2025.

C. Broader effects

Besides their direct economic effects, pre-existing fiscal weakness can constrain policy choices. High deficits and debt will make it more difficult for the government to implement policy, as some policy makers will feel reluctant to raise deficits to even higher levels. This can reduce the likelihood of routine government investments in people and the economy and increase reluctance to respond fully to emergencies like recessions or wars. For example, countries with low debt-GDP ratios at the beginning of a financial crisis tended to have smaller declines in output than countries with higher debt loads because they were more willing to enact expansionary policies (Romer and Romer 2017, 2019). Indeed, some have argued that a conservative government would want to run up debt specifically as a way to constrain the choices of future governments (Persson and Svensson 1989).

More broadly, high debt may reduce America's global standing in political and military terms. In 2011, the Joint Chiefs of Staff chairman, Admiral Mike Mullen, said "the single, biggest threat to our national security is our debt" (Marshall 2011). As Friedman (1988) noted almost 40 years ago, "World power and influence have historically accrued to creditor countries. It is not coincidental that America emerged as a world power simultaneously with our transition from a debtor nation . . . to a creditor supplying investment capital to the rest of the world". Finally, Posen (2014) argues that unsustainable fiscal policy will make it harder for the United States to maintain its standing in global trade talks and disputes.

D. Will Rising Debt Create a Financial Crisis?

Rising debt *could* create a financial crisis, but that seems unlikely to occur in the near term for two key economic reasons. First, the dollar is still the world's reserve currency, and second, the U.S. still has the resources to pay its debts for decades to come. Policy makers,

however, could create an emergency by forcing a default on the country's debt, as some Congressional Republicans threatened to do during the debt ceiling standoffs in 2011 and 2013 and also more recently (Bartlett 2011, Weisman 2013, Rappeport 2023). Edelberg, Harris, and Sheiner (2025) provide an extended and thoughtful discussion of the various factors that influence whether rising debt could cause a financial crisis and emphasize that the main risks come from political mis-steps rather than underlying economic fundamentals. Notably, if a financial crisis did occur for some other reason, the presence of high government debt could make the problem worse and constrain the federal response.

E. But We Owe It to Ourselves

One issue that frequently arises regarding the economic effects of fiscal policy is how debt and deficits can pose problems when "we owe the money to ourselves." The answer has several parts. First, the evidence that deficits or debt raise interest rates and reduce growth, national saving, and investment refers – at least in the U.S. case – to debt that the citizens of the country, indeed, largely owed to themselves. Those deficits and debt affected economic performance through the standard economic channels – raising consumption by current generations at the expense of future generations.

Second, future generations will have to finance that debt via higher taxes or lower spending, and those steps will cause pain, especially if the policies are designed poorly. While there is a natural tendency to think that future generations will be better off and more able to bear the burden of higher debt, it is unclear how much more affluent some members of future generations will be relative to current generations. Intergenerational absolute income mobility has been declining over the last few decades, and there are higher mobility gaps between economic classes (Chetty et al. 2017, Chetty et al. 2024). Among people born in 1940, more than

90% had higher real income as (young) adults than their parents did. Meanwhile, among those born in the 1980s, only slightly more than half had higher real income than their parents. Chetty et al. (2017) estimate that most of this trend occurs, despite rising productivity, because of a widening distribution of income. If this pattern continues, many members of future generations will be worse off than their parents in absolute terms and thus will be less well-prepared to address a higher debt burden than earlier generations.

Third, to some extent, we don't owe it to ourselves; we also owe it to investors around the world. At the end of 2024, foreign investors held 30% of all publicly held debt (FRED 2025c).

V. Discussion

A. This Time is Different

Although the nation has successfully reduced the debt-GDP ratio several times in the past (see Figure 5), the budgetary, economic, and political framework is now quite different than in the past. Debt reductions before the 1980s happened after wars or recessions and occurred largely via defense spending cuts. Typically, the debt-GDP ratio was cut in half over a period of around 15 years. That pattern cannot play out in the future. There is no current war that will end and let defense spending, which is already low, adjust downward by further amounts. And cutting the debt-GDP ratio in half over the next 15 years would involve massive spending cuts or tax increases, for which there is no political constituency. Indeed, in the 2004-2024 period, Congress failed to respond at all, on average, to deficit or debt increases, in a fiscally stabilizing manner (Auerbach and Yagan 2025).

For decades, economic growth benefited from the steady influx of baby boomers and women into the labor market. Now, boomers are retiring *en masse* and women's labor force

participation has plateaued, and growth prospects have dimmed.

Concerns about the projected budget outlook can be divided into those affecting the primary deficit and those affecting net interest payments. We discuss each component in turn.

1. The Primary Deficit

Policy makers have never had to address projected permanent imbalances between non-interest spending and taxes. The closest historical antecedent occurred after World War II, when the United States faced a debt-GDP ratio of 106%. The ratio gradually dwindled to 25% in 1980, aided by a variety of factors. Defense spending fell substantially as a share of GDP; the Fed-Treasury Accord kept interest rates low for an extended period; and growth rates exceeded market interest rates (Acalin and Ball 2023).

Most relevant, however, for current purposes, is that the primary budget was balanced or slightly in surplus on average over the 1946-1980 period. In contrast, we project sizable and persistent primary deficits as a share of GDP over the next 30 years. In the absence of policy changes, there is nothing in the projections to suggest that primary deficits will fall after 2055.

Of course, balancing the primary budget is not necessary to stabilize the debt-GDP ratio (Yagan 2025). If the primary deficit is small enough, nominal GDP growth can maintain the debt ratio, even with positive interest rates.[34] But the combination of primary deficits and net interest payments, discussed below, are expected to outstrip nominal GDP growth in the future.

Tightening the primary budget through reductions in spending will be much more challenging now, especially in the aftermath of the Medicaid cuts in the OBBBA, than in the earlier post-war period, because of differences in demographics and budget composition. In 1945

[34] In particular, if the GDP growth rate exceeds the interest rate on government debt, then primary deficits can be consistent with a constant or even falling debt-GDP ratio. This occurred, for example, between 2020 and 2021 and again between 2021 and 2022, as rapid real growth coming out of the pandemic combined with a surge of inflation to produce nominal GDP growth well above the interest rates then being paid on government debt.

and the years that followed, defense spending was a major part of the federal budget, Social Security was small, and Medicare and Medicaid did not exist. In contrast, in fiscal year 2024, federal spending on defense was just 2.9% of GDP while the three major entitlement programs accounted for 10.8% of GDP and more than half of non-interest federal spending. Moreover, as noted above, spending on entitlement programs is projected to grow faster than GDP over the next three decades without any new legislation, due to population aging and health care cost growth. At the same time, demand for other government programs may rise as well, given the higher inequality that exists today relative to previous decades, the need for investments in climate change, and other priorities. In short, the upward pressure on federal spending is stronger now than in the past.

Reducing the primary deficit through tax increases may prove difficult politically, but there is room to maneuver. With the passage of the OBBBA, revenues are projected to average 17.4% of GDP between 2025 and 2054 if the temporary provisions expire as expected and 17.1% if the temporary provisions are made permanent. In contrast, pre-OBBA projections set revenues at 18.5% of GDP over the same period, and even that figure was well below the value of 19.6% reached in 2022. Consumption and energy taxes are especially low relative to other countries.

2. Interest payments

Policy makers have never faced interest payments as a share of GDP as high as those projected within the next decade. The closest historical episode was in the early 1990s, when interest payments reached 3.2% of GDP. But as policy makers reached budget deals and the economy grew, interest rates fell and, given that the debt-GDP ratio was only half as large as it is now, the underlying debt did not put much pressure on interest payments.

Now, however, both high debt relative to GDP and the prospect of higher interest rates

are key determinants of the fiscal outlook. Higher rates unambiguously raise net interest payments – which, as documented above, are projected to grow rapidly – and hurt the federal government's overall fiscal stance.

Another potential factor pushing up interest rates relates to the Federal Reserve Board. During the GFC and the COVID pandemic, the Fed sharply expanded its balance sheet, acquiring large quantities of the new government debt being issued. Brooks and Pingle (2022) estimate that the more than $3.2 trillion in U.S. Treasury debt that the Fed eventually purchased during the pandemic reduced rates by at least 70 basis points. As the Fed unwinds that portfolio, it will create pressure for higher interest rates (see also Krishnamurthy and Vissing-Jorgensen 2012).

B. Solutions

The solution to an issue as large as obtaining a sustainable fiscal outlook is likely to contain a wide number of policies and factors. Here, we discuss tax and spending options, but it is important to emphasize that other policies matter as well. In particular, policies that promote productivity can help but as noted above would have to be enormous relative to historical trends to solve the problem. Higher immigration could help reduce this problem as well, at least at the federal level, but is a fraught issue, politically (NASEM 2017).

1. Evidence from Fiscal Consolidations in Other Countries

There is a large body of evidence on fiscal consolidation from other countries.[35] Though

[35] See Gale, Berlin, and Thorpe (2025) for a recent review and Alesina, Favero, and Giavazzi (2019) for a comprehensive assessment of the literature. There are also several "off the shelf" proposals to bring about fiscal sustainability (National Commission on Fiscal Responsibility and Reform 2010; Debt Reduction Task Force 2010; Gale 2019b; Solutions Initiative 2024).

significant uncertainty remains, the results exhibit some general tendencies.[36] First, almost all fiscal consolidations in advanced countries are contractionary in the short run. That is, spending cuts and tax increases tend to reduce short-run output.[37]

Second, consolidations appear to reduce short-term GDP by less when they are expenditure-based rather than tax-based. This result, however, may be due to differences in monetary, regulatory, wage moderation, or other policies that may precede or accompany spending cuts but not tax increases (and are difficult to control for in some instances). And it may not generalize to all levels or types of taxes and spending. Specifically, revenue increases have smaller, negative aggregate effects when they start from lower initial tax levels, focus on less distortionary taxes, and/or expand the tax base rather than raise rates (Gunter et al. 2021, Dabla-Norris and Lima 2023). Spending cuts have larger, negative aggregate effects when they reduce public investment and government purchases. Fiscal consolidations, however, face potentially substantial trade-offs between growth and distributional outcomes. The types of spending cuts and tax increases that have the smallest (largest) effect on output tend to be especially regressive (progressive).

Third, consolidations implemented during booms rather than recessions appear to have less damaging short-run output effects (Auerbach and Gorodnichenko 2012, 2013, 2018). Consolidations that are gradual and back-loaded appear to be more effective, while those that are heavily front-loaded tend to be less effective (Batini, Callegari, and Melina, 2012;

[36] A recent IMF survey concludes that "despite a voluminous empirical literature, any patterns in the surveyed studies and data should be seen as suggestive rather than conclusive" (Balasundharam et al., 2023, p. 5).

[37] There are some cases, however, where consolidations appear to have been expansionary. Generally, expansionary consolidations are more likely to occur in small economies that are open to trade, have high debt and high interest rates (so that there is room for heightened expectations that debt will be repaid), whose major trading partners are not simultaneously running austerity programs, and where monetary and wage policies are accommodating (Ilzetski, Mendoza, and Végh 2013).

Balasundharam et al. 2023).

Fourth, expansionary monetary policy can reduce the impact of fiscal tightening. Fifth, especially for small, open economies, the behavior of other countries also plays a significant role. Fiscal consolidations are likely to have more damaging effects domestically when a country's major trading partners are consolidating or in a recession at the same time.

Finally, many of the austerity plans instituted in European countries in the aftermath of the GFC – when economies were slack, interest rates could not be adjusted downward, and many countries consolidated at the same time – appear to have been self-defeating, resulting in higher debt-GDP ratios than would have occurred otherwise (Auerbach and Gorodnichenko 2018; Fatas and Summers 2018; House, Proebsting, and Tesar 2020).

Of course, how and when a country should consolidate depends on the specific circumstances it faces, and the U.S. differs from other countries in ways that have implications for fiscal consolidation. First and most obviously, the U.S. faces a long-term imbalance but not a short-term crisis. As a result, the immediate, drastic actions that some countries were forced to take do not apply to the U.S. today. Moreover, the U.S. can afford to begin consolidation efforts during a period of economic strength, which may help minimize the negative economic effects.

Second, several factors suggest that the U.S. might be able to rely more on tax increases than expenditure cuts, relative to the path pursued by European countries. The ability to slowly phase in tax increases can avoid the negative impact of sharp and immediate tax hikes. In addition, as noted above, tax increases have smaller negative effects when initial revenues are lower, when added revenues come from base broadening rather than rate increases, and when relatively non-distortionary taxes are raised. The U.S. has persistently maintained lower taxes (at all levels of government) compared to all other OECD countries and has very substantial

personal and corporate income tax expenditures that could be reduced. It also has particularly low levels of consumption and energy taxes that could be raised and are less distortionary than income or wealth taxes. Likewise, spending has been persistently lower in the U.S. than in other OECD countries, especially spending on families. If spending has diminishing marginal returns, cuts in social spending could have larger negative effects in the U.S. than in other countries.

A third difference applies to monetary policy. In the U.S., a tax increase that raised prices – such as an expansion of a VAT – would likely be accompanied by more accommodative monetary policy than in European countries. The mandate of the European Central Bank (ECB) is primarily to fight inflation; in contrast, the Federal Reserve faces a dual mandate to promote stable prices and also full employment. Moreover, the ECB is less likely to respond to country-specific fiscal policies than the Fed is to respond to U.S. national policies. The potential for more accommodative monetary responses provides another reason why tax increases may be a greater share of the optimal mix of policy in a U.S. consolidation.

2. Non-Solutions

Just as one should discuss what could work, it is equally important to rule out implausible or impractical solutions. In particular, there are two ways *not* to address the fiscal situation. Defaulting on the debt or inflating it away might seem like clever options: much of the burden of default would fall on foreigners, who own a significant share of the debt.

But both options would make the fiscal situation harder to address. Defaulting would only eliminate the current net debt; it would not help pay for future obligations for Social Security, Medicare, and Medicaid. Auerbach and Gorodnichenko (2018, Figure 2) calculate, based on 2016 projections, that between 80% and 90% of the U.S. fiscal gap would remain even

if all current net debt disappeared. Default would also raise the price of future borrowing.[38] Thus even flirting with default can create uncertainty, hurt the economy, and raise interest rates. An intentional, large-scale default could be catastrophic.

Nor will inflation help very much to address the issue. Inflation is a kind of partial default. Because it reduces the value of government bonds whose payoffs are denoted in nominal terms, inflation reduces debt overhand most effectively when the debt is composed of long-term nominal bonds. But most explicit U.S. Treasury debt is relatively short-term (Dynan and Elmendorf 2025) and due to rollover soon. Investors would require higher interest rates on new bond issues as soon as it was made clear that the United States was trying to inflate away the debt. And, as noted above, most of the U.S. fiscal gap takes the form of obligations that are explicitly or implicitly indexed to inflation, namely, payments to Social Security, Medicare, and Medicaid participants (Auerbach and Gorodnichenko 2018).

C. Politics[39]

Auerbach and Yagan (2025) show that from 1984 to 2003, Congress and the President reacted to higher deficits in a fiscally stabilizing manner, legislating both tax increases and spending cuts. Since then, however, they find that this response has largely disappeared. There are many potential reasons for the change in policy makers' behavior; the latter period experienced weaker economic growth and lower interest rates; increased political polarization, sorting, and tribalism; increases in the likelihood of unified government, which increased deficits through the use of budget reconciliation; the demise of budget rules in 2002, perhaps reflecting

[38] In 1979, an inadvertent, temporary default on a small batch of Treasury securities – caused by a computer error – spooked investors enough to raise interest rates that the Treasury was required to pay, costing the government about $50 billion (in today's dollars) in higher interest payments (Gale 2019b).

[39] See Gale (2019b, Chapter 6) for an extended discussion of political aspects of deficit reduction.

"pent up" demand for new spending and tax cuts, after the budget discipline of the 1990s; and, possibly, changes in public opinion (Gale 2024). The key question is what will get policy makers to change their behavior and revert to addressing fiscal issues, presumably through largely bipartisan changes. The answer is far from obvious.

VI. Conclusion

Abstracting from all the evidence, projections, and arguments above and taking a broader view of the experience of other nations as well as our own history, it seems that countries intuitively understand that too much debt is a problem. Governments do not tend to voluntarily run up their debt. This would be odd if debt were costless, because, after all, politicians and citizens love lower taxes and the benefits of higher spending. Yet countries avoid high and rising debt-GDP ratios whenever they can. In 2007, for example, before the GFC – which boosted debt levels everywhere – only four of 30 countries in the OECD (Greece, Italy, Belgium, and Japan) had net financial liabilities above 80% of GDP.

That the nation must address the long-term fiscal challenge to avoid very negative outcomes is clear, and there is no shortage of actions that policy makers could take. Enacting policies sooner rather than later, even if they are implemented gradually, would provide some insurance against future fiscal shocks. But the precise timing for policy actions is unclear and will depend on economic factors, perhaps especially interest rates, as well as political developments. What is clear, however, is that the question is an issue of "when" not "if" and that this is no longer a matter of concern only for the long term.

References

Acalin, Julien, and Laurence Ball. 2023. "Did the U.S. Really Grow Out of Its World War II Debt?" National Bureau of Economic Research, August 2023.

Aherne, Drew C., Bill Heniff Jr., Megan S. Lynch, Justin Murray, and James V. Saturno. 2025. *Continuing Resolutions: Overview of Components and Practices*. Congressional Research Service, 2025. https://www.congress.gov/crs_external_products/R/PDF/R46595/R46595.7.pdf.

Alesina, Alberto, Carlo Favero, and Francesco Giavazzi. 2019. "Effects of Austerity: Expenditure- and Tax-Based Approaches." Journal of Economic Perspectives 33, no. 2 (2019): 141–62.

Andara, Kennedy, Corey Husak, Sara Partridge, et al. 2025. "The Implementation Timeline of the One Big Beautiful Bill Act." Center for American Progress, July 29, 2025. https://www.americanprogress.org/article/the-implementation-timeline-of-the-one-big-beautiful-bill-act/.

Anderson, Alyssa, Dave Na, Bernd Schlusche, and Zeynep Senyuz. 2022. "An Analysis of the Interest Rate Risk of the Federal Reserve's Balance Sheet, Part 1: Background and Historical Perspective," FEDS Notes. Washington: Board of Governors of the Federal Reserve System.

Auerbach, Alan J. 1994. "The U.S. Fiscal Problem: Where We Are, How We Got Here, and Where We're Going." NBER Macroeconomics Annual 9: 141–86.

Auerbach, Alan J. 2007. "Why Have Corporate Tax Revenues Declined? Another Look." CESifo Economic Studies 53 (2): 153–71. https://doi.org/10.1093/cesifo/ifm008.

Auerbach, Alan J. 2008. "Federal Budget Rules: The U.S. Experience," Swedish Economic Policy Review, Spring 2008, 57–82.

Auerbach, Alan J., and James M. Poterba. 1987. "Why Have Corporate Tax Revenues Declined?" *Tax Policy and the Economy* 1: 1–28. https://www.nber.org/system/files/chapters/c10927/c10927.pdf.

Auerbach, Alan J., and William G. Gale. 2009. "The Economic Crisis and the Fiscal Crisis: 2009 and Beyond." Preprint, Brookings Institution, September 2009. https://www.brookings.edu/wp-content/uploads/2016/06/06_fiscal_crisis_gale_update.pdf.

Auerbach, Alan J., William G. Gale, and Peter Orszag. 2003. "Reassessing the Fiscal Gap: The Role of Tax-Deferred Saving." Tax Notes, July 28, 2003.

Auerbach, Alan J., Jagadeesh Gokhale, and Laurence Kotlikoff. 1991."Generational Accounts: A Meaningful Alternative to Deficit Accounting," in D. Bradford, ed., Tax Policy and the Economy 5, 55-110.

Auerbach, Alan J., and Yuriy Gorodnichenko. 2012 "Measuring the Output Responses to Fiscal Policy." American Economic Journal: Economic Policy 4, no. 2 (May 2012): 1-27.

Auerbach, Alan J., and Yuriy Gorodnichenko. 2013. "Output Spillovers from Fiscal Policy." American Economic Review 103, no. 3 (May 2013): 141-146.

Auerbach, Alan J., and Yuriy Gorodnichenko. 2018. "Fiscal Stimulus and Fiscal Sustainability." In Federal Reserve Bank of Kansas City, Fostering a Dynamic Global Economy, 217–270

Auerbach, Alan J., and Danny Yagan. 2025. "Robust Fiscal Stabilization." Working Paper No. 33374. Working Paper Series. National Bureau of Economic Research, January. https://doi.org/10.3386/w33374.

Balasundharam, Vybhavi, Olivier Basdevant, Dalmacio Benicio, Andrew Ceber, Yujin Kim, Luca Mazzone, Hoda Selim, and Yongzheng Yang. 2023. "Fiscal Consolidation: Taking Stock of Success Factors, Impact, and Design." International Monetary Fund, Working Paper No. 2023/063.

Bartlett, Bruce. 2011. "Doing Away With the Debt Ceiling." Economix Blog, August 1. https://archive.nytimes.com/economix.blogs.nytimes.com/2011/08/01/doing-away-with-the-debt-ceiling/.

Batini, Nicoletta, Giovanni Callegari, and Giovanni Melina. 2012. "Successful Austerity in the United States, Europe and Japan." IMF Working Paper WP/12/190.

Baum, Anja, Cristina Checherita-Westphal, and Philipp Rother. 2013. "Debt and Growth: New Evidence for the Euro Area." Journal of International Money and Finance 32 (February 1, 2013): 809–21.

Berger, Sam, Seth Hanlon, and Galen Hendricks. 2018. "Reflections on the Congressional Budget Act." Center for American Progress, October 2018.

Blahous, Charles. 2013. "Why We Have Federal Deficits: The Policy Decisions That Created Them." Mercatus Center, November 14, 2013.

Board of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Trust Funds. 2024. "2024 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds."

Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. 2024. "2024 Annual Report of the Boards of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds."

Bond, Eric W., Mario J. Crucini, Tristan Potter, and Joel Rodrigue. 2013. "Misallocation and Productivity Effects of the Smoot–Hawley Tariff." *Review of Economic Dynamics* 16 (1): 120–34. https://doi.org/10.1016/j.red.2012.11.002.

Brooks, Robin, and Jonathan Pingle. 2022. "Lessons Learned from Monetary and Fiscal Policy during COVID-19." In Recession Remedies: Lessons Learned from the U.S. Economic Policy Response to COVID-19, 283–313. Brookings Institution.

Burman, Leonard, and William G. Gale. 2023. 7 Things to Know about the Debt Limit. Brookings Institution, Jan. 19, 2023.

Caner, Mehmet, Thomas Grennes, and Fritzi Koehler-Geib. 2010. "Finding the Tipping Point: When Sovereign Debt Turns Bad." In Sovereign Debt and the Financial Crisis: Will This Time Be Different? World Bank.

Caplan, Zoe, and Megan Rabe. *The Older Population: 2020*. U.S. Census Bureau, 2023. https://www2.census.gov/library/publications/decennial/2020/census-briefs/c2020br-07.pdf.

Carpenter, Seth B, Jane E Ihrig, Elizabeth C Klee, and Alexander H Boote. 2013. "The Federal Reserve's Balance Sheet and Earnings: A Primer and Projections." Finance and Economics Discussion Series Divisions of Research & Statistics and Monetary Affairs Federal Reserve Board, Washington, D.C.

Cecchetti, Stephen G., M. S. Mohanty, and Fabrizio Zampolli. 2012. "Achieving Growth Amid Fiscal Imbalances: The Real Effects of Debt," 145–96. Jackson Hole Economic Policy Symposium: Federal Reserve Bank of Kansas City.

Center on Budget and Policy Priorities. 2008. "Policy Basics: Where Do Our Federal Tax Dollars Go?". Apr. 15, 2008.

Chetty, Raj, Will Dobbie, Benjamin Goldman, Sonya R. Porter, and Crystal S. Yang. 2024. "Changing Opportunity: Sociological Mechanisms Underlying Growing Class Gaps and Shrinking Race Gaps in Economic Mobility." Opportunity Insights, September.
Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang. 2017. "The Fading American Dream : Trends in Absolute Income Mobility since 1940." Science 356 (6336): 398–406.
Chinn, Menzie, Barry Eichengreen, and Hiro Ito. 2014. "A Forensic Analysis of Global Imbalances." Oxford Economic Papers 66, no. 2 (April 2014): 465–90.
Chinn, Menzie D., and Hiro Ito. 2007 . "Current Account Balances, Financial Development and Institutions: Assaying the World 'Saving Glut.'" Journal of International Money and Finance, Financial Globalization and Integration, 26, no. 4 (June 1, 2007): 546–69.
Chinn, Menzie D., and Hiro Ito. 2008. "Global Current Account Imbalances: American Fiscal Policy versus East Asian Savings." Review of International Economics 16, no. 3 (August 2008): 479–98.
Chudik, Alexander, Kamiar Mohaddes, M. Hashem Pesaran, and Mehdi Raissi. 2015. "Is There a Debt-Threshold Effect on Output Growth?" International Monetary Fund, Working Paper, September 2015.
Committee for a Responsible Federal Budget. 2011. "Agreement on Debt Limit Increase." August 1. https://www.crfb.org/blogs/agreement-debt-limit-increase.
Committee for a Responsible Federal Budget. 2013. "Super Committee Savings Target Was 150% of Sequestration." Oct. 4, 2013.
Committee for a Responsible Federal Budget. 2024a. "From Riches to Rags: Causes of Fiscal Deterioration Since 2001."
Committee for a Responsible Federal Budget. 2024b. "Reconciliation 101," November 18, 2024.
Committee for a Responsible Federal Budget. 2025a. "Government Shutdowns Q&A: Everything You Should Know," March 5, 2025.
Committee for a Responsible Federal Budget. 2025b. "Tariffs Are Generating Meaningful New Revenue." August 11. https://www.crfb.org/blogs/tariffs-are-generating-meaningful-new-revenue.
Committee for a Responsible Federal Budget. 2025c. "The Senate OBBBA in Charts." June 30. https://www.crfb.org/blogs/senate-obbba-charts.
Congressional Budget and Impoundment Control Act of 1974. H.R. 7130, Jul. 12, 1974.
Congressional Budget Office. 2001. "The Budget and Economic Outlook: Fiscal Years 2002–2011".
Congressional Budget Office. 2008. "10-Year Budget Projections."
Congressional Budget Office. 2010. "Historical Data on Federal Debt Held by the Public." 2010. August 5, 2010.
Congressional Budget Office. 2012. "10-Year Budget Projections."
Congressional Budget Office. 2016. "The 2016 Long-Term Budget Outlook."
Congressional Budget Office. 2019. The Effects of the Partial Shutdown Ending in January 2019. Congressional Budget Office, Jan. 28, 2019.
Congressional Budget Office. 2020. "10-Year Budget Projections."
Congressional Budget Office. 2021a. "10-Year Budget Projections."
Congressional Budget Office. 2021b. "Common Budgetary Terms Explained."
Congressional Budget Office. 2022. "CBO's Use of the Income and Payroll Tax Offset in Its Budget Projections and Cost Estimates."

Congressional Budget Office. 2023. “Monthly Budget Review: August 2023.”
Congressional Budget Office. 2024a. “An Update to the Budget and Economic Outlook: 2024-2034.” June 18, 2024
Congressional Budget Office. 2024b. “Effects of Automatic Stabilizers on the Federal Budget: 2024 to 2034.” November 7, 2024.
Congressional Budget Office. 2025a. “An Update About CBO’s Projections of the Budgetary Effects of Tariffs.” August 22, 2025.
Congressional Budget Office. 2025b. “Economic Projections.” January 2025. https://www.cbo.gov/data/budget-economic-data#4
Congressional Budget Office. 2025c. “Effects on Deficits and the Debt of Public Law 119-21 and of Making Certain Tax Policies in the Act Permanent.” August 4, 2025.
Congressional Budget Office. 2025d. “Estimated Budgetary Effects of Public Law 119-21, to Provide for Reconciliation Pursuant to Title II of H. Con. Res. 14, Relative to CBO’s January 2025 Baseline.” July 21, 2025. https://www.cbo.gov/publication/61570.
Congressional Budget Office. 2025e. “Historical Budget Data.” https://www.cbo.gov/data/budget-economic-data#2
Congressional Budget Office. 2025f. “How Changes in Revenues and Outlays Would Affect Debt Service, Deficits, and Debt.” March 5, 2025.
Congressional Budget Office. 2025g. “H.R. 1, One Big Beautiful Bill Act (Dynamic Estimate).” June 17, 2025.
Congressional Budget Office. 2025h. “The Budget and Economic Outlook: 2025 to 2035.” January 17. https://www.cbo.gov/publication/60870.
Congressional Budget Office. 2025i. “The Long-Term Budget Outlook: 2025 to 2055.” March 27, 2025.
Congressional Budget Office. 2025j. “The Long-Term Budget Outlook Under Alternative Scenarios for the Economy and the Budget.” April 10, 2025.
Congressional Budget Office. 2025k. “Workbook for How Changes in Economic Conditions Might Affect the Federal Budget: 2025 to 2035.” March 13, 2025.
Crucini, Mario J., and James Kahn. 1996. “Tariffs and Aggregate Economic Activity: Lessons from the Great Depression.” *Journal of Monetary Economics* 38 (3): 427–67. https://doi.org/10.1016/S0304-3932(96)01298-6.
Crucini, Mario J, and James Kahn. 2003. *Tariffs and the Great Depression Revisited*. No. 172. Federal Reserve Bank of New York Staff Reports.
Dabla-Norris, Era, and Frederico Lima. 2023. “Macroeconomic Effects of Tax Rate and Base Changes: Evidence from Fiscal Consolidations.” European Economic Review 153, no. C (2023).
Debt Reduction Task Force. 2010.“Restoring America’s Future.” Bipartisan Policy Center, November 2010.
Denmark National Bank. 2025. “Central Government Borrowing and Debt 2024.”
DeSilver, Drew. 2023. “Congress Has Long Struggled to Pass Spending Bills on Time.” Pew Research Center (blog), September 13, 2023.
DeWitt, Larry. 2007. “Social Security History.” Social Security. June 18, 2007.
Driessen, Grant. 2025. *Debt Limit Policy Questions: What Are the Potential Economic Effects of a Binding Federal Debt Limit?* Public Finance No. R47574. https://www.congress.gov/crs-product/R47574.

Dynan, Karen, and Douglas Elmendorf. 2025. "Putting US Fiscal Policy on a Sustainable Path." National Bureau of Economic Research, 2025.
Edelberg, Wendy, Ben Harris, and Louise Sheiner. 2025. "Assessing the Risks and Costs of the Rising US Federal Debt." Brookings (blog).
Eichengreen, Barry. 1986. *The Political Economy of the Smoot-Hawley Tariff*. No. W2001. National Bureau of Economic Research. https://doi.org/10.3386/w2001.
Elmendorf, D. W., & Gregory Mankiw, N. 1999. Government debt. In Handbook of Macroeconomics (Vol. 1, Part C, pp. 1615–1669).
Engen, Eric M., and Robert Hubbard. 2005. "Federal Government Debt and Interest Rates." National Bureau of Economic Research Macroeconomics Annual 2004 19 (2005): 83–160.
Ervin, Sam, Edmund Muskie, and Charles Percy. 1974. "The Case for Budget Reform." The Washington Post, Apr. 18, 1974.
Fatas, Antonio, and Lawrence H. Summers. 2018. "The permanent effects of fiscal consolidations." Journal of International Economics 112 (May 2018): 238-250.
Federal Reserve Bank of St. Louis. 2025a. "Federal Debt Held by Federal Reserve Banks," 2025a.
Federal Reserve Bank of St. Louis. 2025b. "Federal Debt Held by Federal Reserve Banks as Percent of Gross Domestic Product," June 26, 2025.
Federal Reserve Bank of St. Louis. 2025c. "Federal Debt Held by Foreign and International Investors," 2025.
Federal Reserve Bank of St. Louis. 2025d. "Federal Debt Held by Foreign and International Investors as Percent of Gross Domestic Product," June 3, 2025.
Federal Reserve Board. 2021. *The Fed Explained: What the Central Bank Does.* 11th Edition.
Friedman, Benjamin. 1988. *Day of Reckoning: The Consequences of American Economic Policy under Reagan and After.* New York: Random House.
Furceri, Davide, Carlos Goncalves, and Li Hongchi. 2025. "The Impact of Debt and Deficits on Long-Term Interest Rates in the US." July 11. https://www.imf.org/en/Publications/WP/Issues/2025/07/11/The-Impact-of-Debt-and-Deficits-on-Long-Term-Interest-Rates-in-the-US-568444.
Furman, Jason, and Lawrence Summers. 2020. "A Reconsideration of Fiscal Policy in the Era of Low Interest Rates." Unpublished manuscript. Harvard University and Peterson Institute for International Economics.
Gale, William G. 2019a. "Shutdowns Hurt the People the Government Is Meant to Protect. Here's How to End Them." Brookings Institution, February 14, 2019.
Gale, William G. 2019b. *Fiscal Therapy: Curing America's Debt Addiction and Investing in the Future.* Oxford University Press, 2019.
Gale, William G. 2023. "Can We Put a Stop to the Recurrent Threat of Government Shutdowns?" EconoFact, October 3, 2023.
Gale, William G. 2024. "Comment on 'Robust Fiscal Stabilization.'" Brookings Papers on Economic Activity, Fall 2024: 294–322.
Gale, William G., Ian Berlin, and Samuel Thorpe. 2025. "Fiscal Consolidation: Lessons for the U.S." National Tax Journal, 2025.
Gale, William G., Oliver Hall, and John Sabelhaus. 2024. "A Preliminary Report on Taxing the Great Wealth Transfer." Preprint, Brookings Institution, December 2024.

https://www.brookings.edu/wp-content/uploads/2024/12/20241209_TPC_Galeetal_GreatWealthTransfer.pdf.
Gale, William G., and Peter Orszag. 2004. "Budget Deficits, National Saving, and Interest Rates." Brookings Papers on Economic Activity, no. 2 (September 2004).
Gomez Cram, Roberto, Howard Kung, and Hanno Lustig. 2025. "Can U.S. Treasury Markets Add and Subtract?" Stanford University Graduate School of Business, Research Paper, April 2025.
Gorman, Tori. 2025. "The Reconciliation Process: Frequently Asked Questions." Congressional Research Service, Mar. 6, 2025.
Greenspan, Alan. 2001. "Outlook for the Federal Budget and Implications for Fiscal Policy." Speech. Before the Committee on the Budget, U.S. Senate, January 25, 2001. https://www.federalreserve.gov/Boarddocs/testimony/2001/20010125/default.htm.
Gunter, Samara, Daniel Riera-Crichton, Carlos Vegh, and Guillermo Vuletin. 2021. "Non-Linear Effects of Tax Changes on Output: The Role of the Initial Level of Taxation." Journal of International Economics 131 (July 2021).
Gust, Christopher, and Arsenios Skaperdas. 2024. "Government Debt, Limited Foresight, and Longer-Term Interest Rates." Finance and Economics Discussion Series, nos. 2024–027 (May): 1–14. https://doi.org/10.17016/feds.2024.027.
"H.J.Res.372 - 99th Congress (1985-1986): Balanced Budget and Emergency Deficit Control Act of 1985." 1985. Legislation. 1985-08-01. December 12, 1985.
Hemel, Daniel J., and Robert Lord. 2021. "Closing Gaps in the Estate and Gift Tax Base." University of Chicago Coase-Sandor Institute for Law & Economics Research Paper No. 937.
Heniff Jr, Bill. 2023. "Debt Limit Legislation: The House 'Gephardt Rule.'" Congressional Research Service, Nov. 8, 2023.
Heniff Jr, Bill. 2022. "The Budget Reconciliation Process: The Senate's 'Byrd Rule.'" Congressional Research Service, September 28, 2022.
Horney, James. 2005. "Reconciliation Bills Would Increase the Deficit and Favor the Well-Off." Center on Budget and Policy Priorities, Sep. 8, 2005.
House, Christopher L., Christian Proebsting, and Linda L. Tesar. 2020. "Austerity in the aftermath of the great recession." Journal of Monetary Economics 115 (November 2020): 37-63.
Huntley, Jonathan. 2014. "The Long-Run Effects of Federal Budget Deficits on National Saving and Private Domestic Investment." Congressional Budget Office, Working Paper, January 28, 2014.
Ilzetzki, Ethan, Enrique Mendoza, and Carlos Végh. 2013. "How Big (Small?) Are Fiscal Multipliers?" Journal of Monetary Economics 60, no. 2 (March 2013): 239–54.
Irwin, Douglas A. 1998. "The Smoot-Hawley Tariff: A Quantitative Assessment." *The Review of Economics and Statistics* 80 (2): 326–34. JSTOR.
Joint Committee on Taxation. 2025. "Estimated Revenue Effects Relative to the Current Policy Baseline of the Tax Provisions in 'Title VII – Finance' of the Substitute Legislation as Passed by the Senate to Provide for Reconciliation of the Fiscal Year 2025 Budget (JCX-34-25)", July 1, 2025. https://www.jct.gov/publications/2025/jcx-34-25/
Kell, Michael. 2004. "VI Budget Enforcement Act and Options for Reform." In *U.S. Fiscal Policies and Priorities for Long-Run Sustainability*. USA: International Monetary Fund.

Kille, Leighton Walter. 2013. "Economic Effects of the 2013 U.S. Federal Government Shutdown." The Journalist's Resource (blog), November 7, 2013.
Kirkegaard, Jacob Funk. 2011. "Can a Debt Ceiling Be Sensible?—The Case of Denmark." Peterson Institute for International Economics (blog), Jul. 26, 2011.
Kogan, Bobby. 2023. "Tax Cuts Are Primarily Responsible for the Increasing Debt Ratio." Center for American Progress, March 27, 2023.
Krishnamurthy, Arvind, and Annette Vissing-Jorgensen. 2012. "The Aggregate Demand for Treasury Debt." Journal of Political Economy 120, no. 2 (April 2012): 233–67.
Labonte, Marc. 2025. "The Fed's Balance Sheet and Quantitative Tightening." Congressional Research Service.
Laubach, Thomas. 2009. "New Evidence on the Interest Rate Effects of Budget Deficits and Debt." Journal of the European Economic Association 7, no. 4 (885 858): June 2009.
Lind, Dara. 2019. "The Border Wall Fight at the Center of the Government Shutdown, Explained." Vox, Jan. 2, 2019.
Looney, Adam, and Elena Patel. 2025. "Why Does the Executive Branch Have so Much Power over Tariffs?" *Brookings*, January 15. https://www.brookings.edu/articles/why-does-the-executive-branch-have-so-much-power-over-tariffs/.
Lynch, Megan. 2022. "Budget Reconciliation Measures Enacted into Law Since 1980." Congressional Research Service, Nov. 2, 2022.
Madsen, Jakob B. 2001. "Trade Barriers and the Collapse of World Trade during the Great Depression." *Southern Economic Journal* 67 (4): 848–68. JSTOR. https://doi.org/10.2307/1061574.
Marshall Jr., Tyrone C. 2011. "Debt Is Biggest Threat to National Security, Chairman Says." DVIDS Hub (American Forces Press Service), September 21, 2011.
Mian, Atif R, Ludwig Straub, and Amir Sufi. 2022. "A Goldilocks Theory of Fiscal Deficits." National Bureau of Economic Research, January.
Mitchener, Kris James, Kevin Hjortshøj O'Rourke, and Kirsten Wandschneider. 2022. "The Smoot-Hawley Trade War." *The Economic Journal* 132 (647): 2500–2533. https://doi.org/10.1093/ej/ueac006.
National Academies of Sciences, Engineering, and Medicine. 2017. *The Economic and Fiscal Consequences of Immigration.* Washington, D.C.: The National Academies Press, 2017.
Neveu, Andre, and Jeffrey Schafer. 2024. "Revisiting the Relationship Between Debt and Long-Term Interest Rates." Congressional Budget Office, Working Paper, December 2024.
Newport, Frank. 2013. "Dysfunctional Gov't Surpasses Economy as Top U.S. Problem." Gallup, Oct. 9, 2013.
One Big Beautiful Bill Act, H.R.1, United States Congress 119, 119-21 (2025). https://www.congress.gov/bill/119th-congress/house-bill/1/text.
Office of Management and Budget, Executive Office of the President. 2024. *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2025.* Washington, DC.
Office of Management and Budget. 2025. "Historical Tables." Washington DC. https://www.whitehouse.gov/omb/information-resources/budget/historical-tables/
Plante, Michael, Alexander W. Richter, and Sarah Zubairy. 2025. "Revisiting the Interest Rate Effects of Federal Debt." Working Paper No. 34018. Working Paper Series. National Bureau of Economic Research, July. https://doi.org/10.3386/w34018.

Persson, Torsten, and Lars E. O. Svensson. 1989. “Why a Stubborn Conservative Would Run a Deficit: Policy with Time- Inconsistent Preferences.” The Quarterly Journal of Economics 104, no. 2: 325–45.
Peter G. Peterson Foundation. 2025a. “Debt Ceiling Update: What’s at Stake.” Jan. 22, 2025.
Peter G. Peterson Foundation. 2025b. “The One Big Beautiful Bill Act Is the Most Expensive Reconciliation Package in Recent History.” Jul. 3, 2025.
Posen, A. 2014. Introduction: The Costs of Behaving Badly. In PIIE Briefing: Vol. 14–1. Flirting with Default: Issues Raised by Debt Confrontations in the United States (pp. 1– 2).
Rappeport, Alan. 2023. “The Debt Limit Standoff Is a New Economic Headwind for the Fed.” The New York Times, May 3, 2023, sec. Business.
Rich, Spencer. 1974. “Budget Reform Advances: Senate-Passed Version Goes To Conference.” The Washington Post, Mar. 23, 1974.
Risen, Tom. 2013. “Why Do Only US and Denmark Have a Debt Ceiling?” U.S. News, Oct. 11, 2013.
Romer, Christina D., and David H. Romer. 2017. "New Evidence on the Aftermath of Financial Crises in Advanced Countries." American Economic Review 107 (10): 3072–3118.
Romer, Christina D., and David H. Romer. 2019. “Fiscal Space and the Aftermath of Financial Crises: How It Matters and Why.” Brookings Papers on Economic Activity. No. 1, 239–313.
Romm, Tony. 2025. “Appeals Court Hears Legal Challenge to Trump Tariffs as Trade War Widens.” Business. *The New York Times*, July 31. https://www.nytimes.com/2025/07/31/business/trump-tariffs-lawsuit-court-appeal.html.
Rosenbaum, David. 1974. “Senate Approves Tighter Control Over the Budget.” New York Times, Mar. 23, 1974.
Slok, Torsten, Rajvi Shah, and Shruti Galwankar. 2024. “Long-Term Interest Rates, Fiscal Policy and the Term Premium.” Apollo Global Management Presentation.
Smith, Alan. 2025. “Sen. Josh Hawley Introduces Bill to Send Tariff Rebate Checks to Americans.” *NBC News*, July 28. https://www.nbcnews.com/politics/congress/sen-josh-hawley-introduces-bill-send-tariff-rebate-checks-americans-rcna221457.
Social Security Administration. 2004. “The ‘Notch’ Provision.” SSA Publication No. 05-10042 January 2004.
Tax Policy Center. 2024a. “What Did the American Taxpayer Relief Act of 2012 Do?” January. https://taxpolicycenter.org/briefing-book/what-did-american-taxpayer-relief-act-2012-do.
Tax Policy Center. 2024b. “What Does It Mean for a Government Program to Be Off-Budget?” January. https://taxpolicycenter.org/briefing-book/what-does-it-mean-government-program-be-budget..
Tax Policy Center. 2024c. “What Is PAYGO?” January. https://taxpolicycenter.org/briefing-book/what-paygo.
Tax Policy Center. 2025. *Tracking the Trump Tariffs*. August 18. https://taxpolicycenter.org/features/tracking-trump-tariffs.
The Budget Lab. 2025. *State of U.S. Tariffs: August 7, 2025*. https://budgetlab.yale.edu/research/state-us-tariffs-august-7-2025.
The Heritage Foundation. 2025. “Budget Reconciliation.”
The National Commission on Fiscal Responsibility and Reform. 2010. “The Moment of Truth.” The White House, December 2010.

The Washington Post. 1984. "The Problem Is the Problem." July 17, 1984. https://www.washingtonpost.com/archive/politics/1984/07/18/the-problem-is-the-problem/61256a4f-d65e-4a3e-a33a-9796abc0e7d5/.

Ursua, J, and D Wilson. 2012. "Risks to Growth from Build-Ups in Public Debt." Global Economics Weekly. Goldman Sachs.

U.S. Department of the Treasury. 2013. *The Potential Macroeconomic Effect of Debt Ceiling Brinkmanship*. https://home.treasury.gov/system/files/276/POTENTIAL-MACROECONOMIC-IMPACT-OF-DEBT-CEILING-BRINKMANSHIP.pdf.

U.S. House Committee on the Budget. n.d. "Budget Framework | The U.S. House Committee on the Budget - House Budget Committee."

U.S. International Trade Commission. 2024. "U.S. Imports for Consumption, Duties Collected, and Ratio of Duties to Value, 1891-2023." May. https://www.usitc.gov/documents/dataweb/ave_table_1891_2023.pdf.

Weisman, Jonathan. 2013. "Rattled Congress Seeks Way Out of Its Standoff." The New York Times, October 3, 2013, sec. U.S.

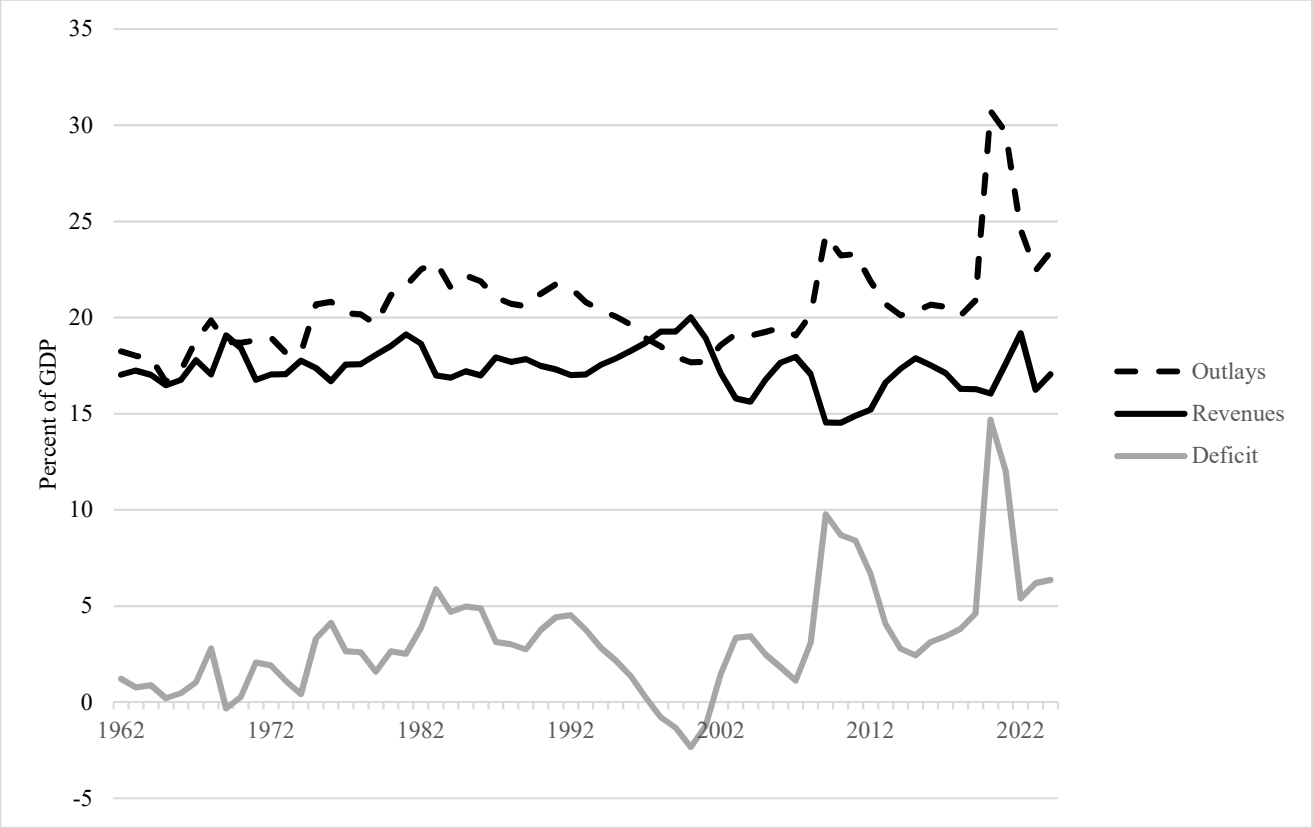
Woo, Jaejoon, and Manmohan S. Kumar. 2015. "Public Debt and Growth." Economica 82 (328): 705–39.

Yagan, Danny. 2025. "The Growth Dividend and Excess Interest." Tax Policy and the Economy 39 (June 2025).

York, Erica, and Alex Durante. 2025. *Tracking the Economic Impact of the Trump Tariffs*. https://taxfoundation.org/research/all/federal/trump-tariffs-trade-war/.

Zaveri, Mihir, et al. 2019. "The Government Shutdown Was the Longest Ever. Here's the History." The New York Times, Jan. 9, 2019.

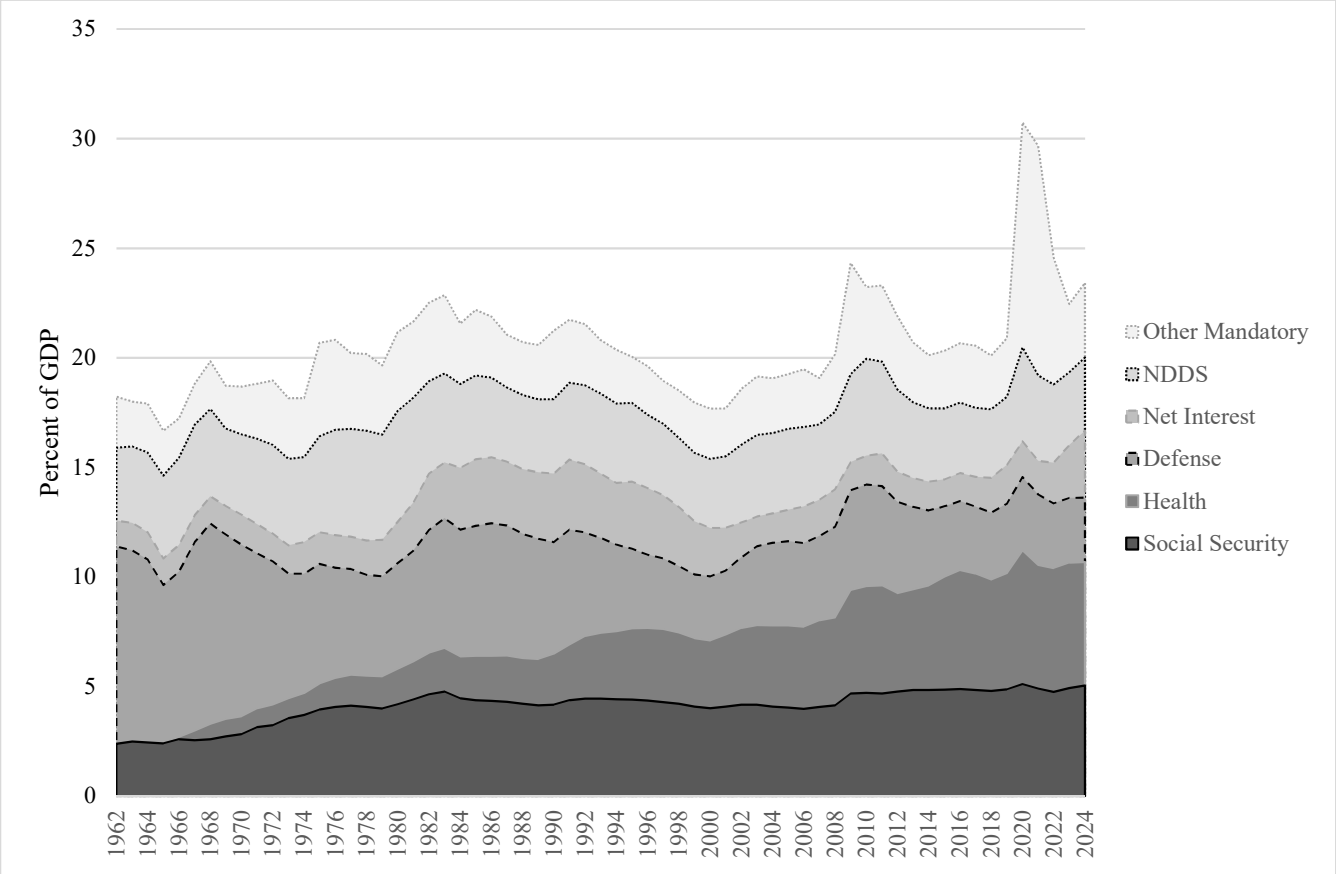
Figure 1. Federal Budget Aggregates, 1962-2024.



Notes: The Figure displays federal outlays, revenues, and unified deficits, each as a percentage of GDP since 1962.

Source: CBO (2025e)

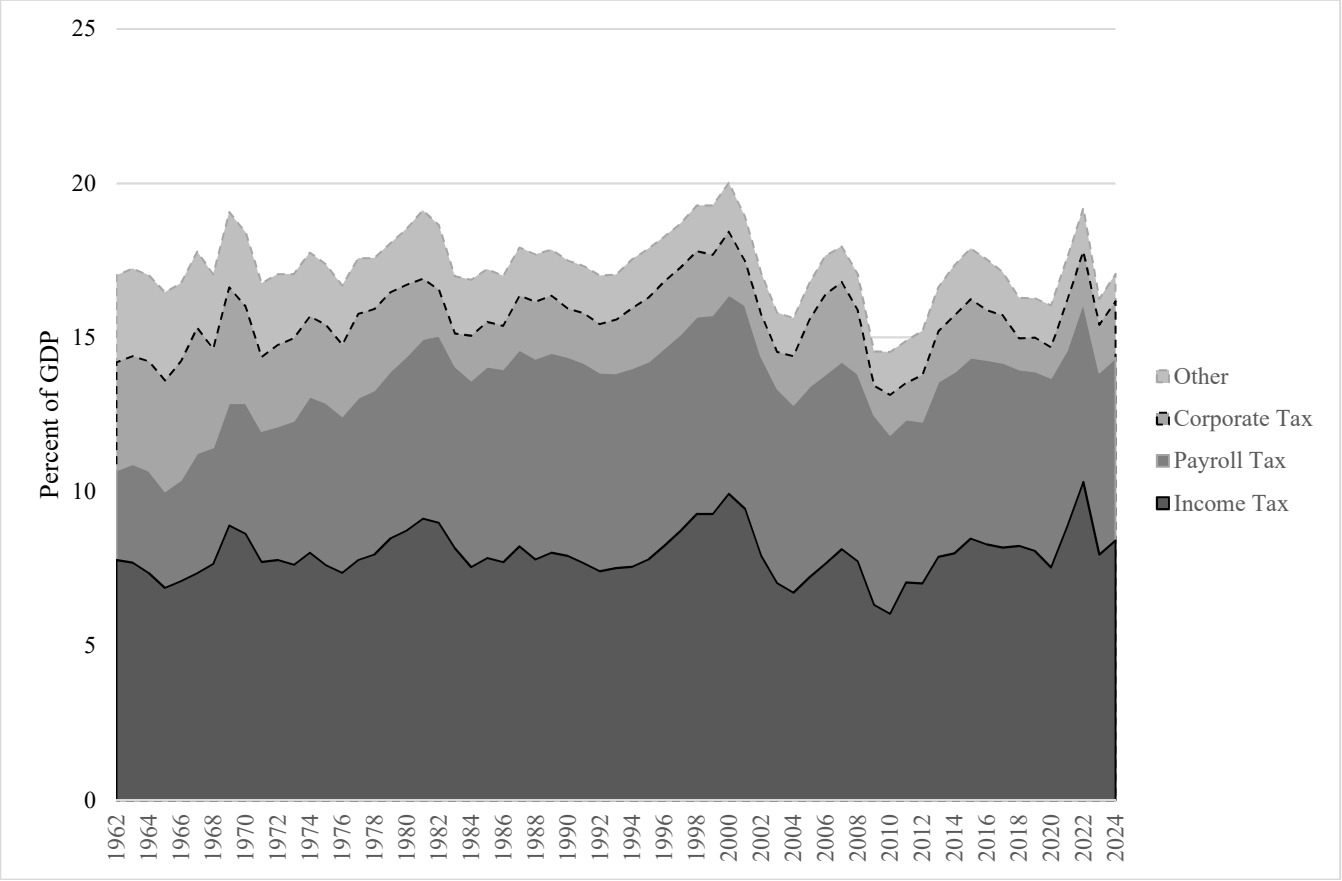
Figure 2. Federal Spending, 1962-2024.



Notes: The Figure displays the cumulative allocations of six major categories of federal spending, as a percentage of GDP, starting in 1962. These categories are Social Security outlays, health care spending, defense spending, net interest payments, non-defense discretionary spending (NDDS), and other mandatory outlays.

Source: CBO (2025e)

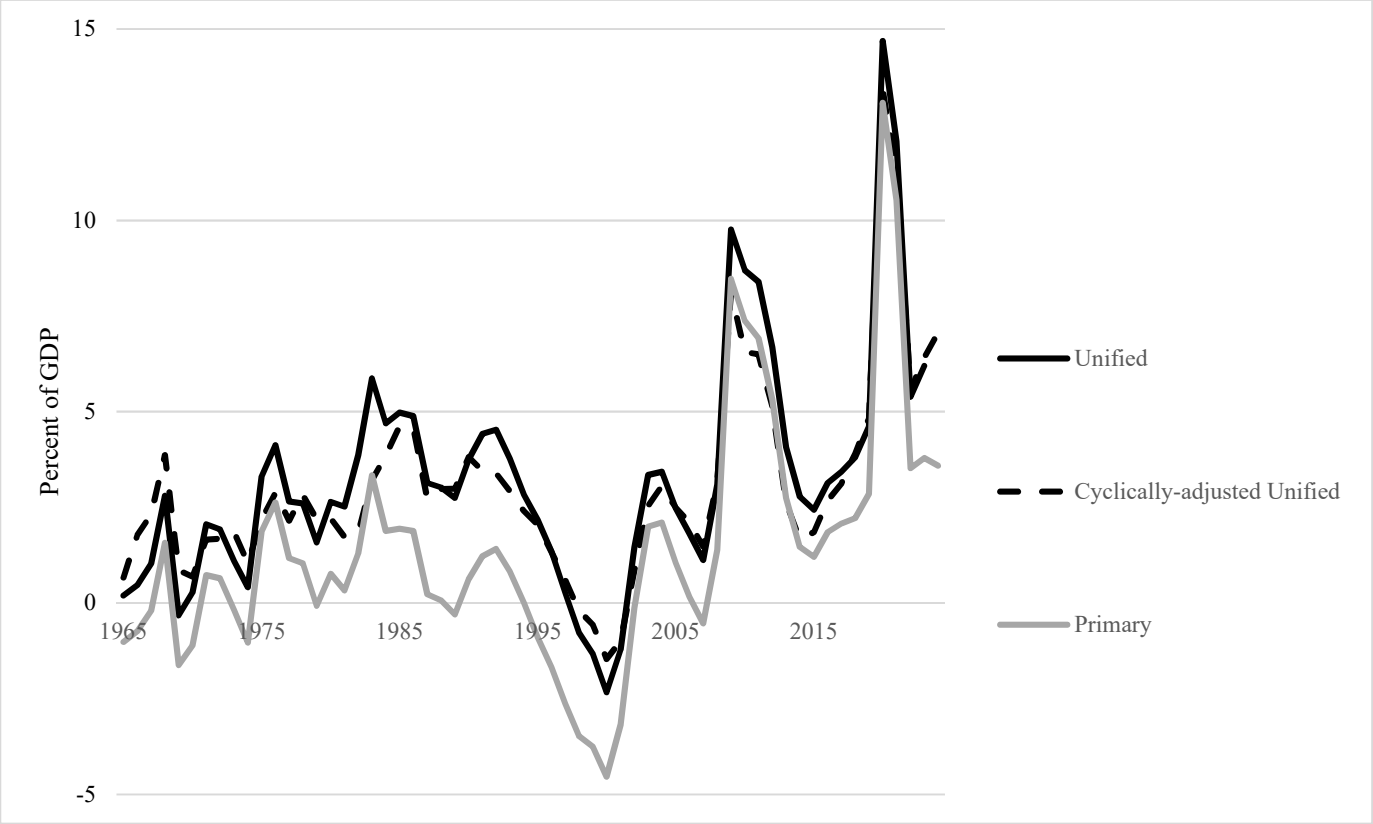
Figure 3. Federal Revenues, 1962-2024.



Notes: The Figure displays the cumulative allocations of four categories of federal revenue, as a percentage of GDP, since 1962. These categories are individual income tax, payroll tax, corporate income tax, and other revenues.

Source: CBO (2025e)

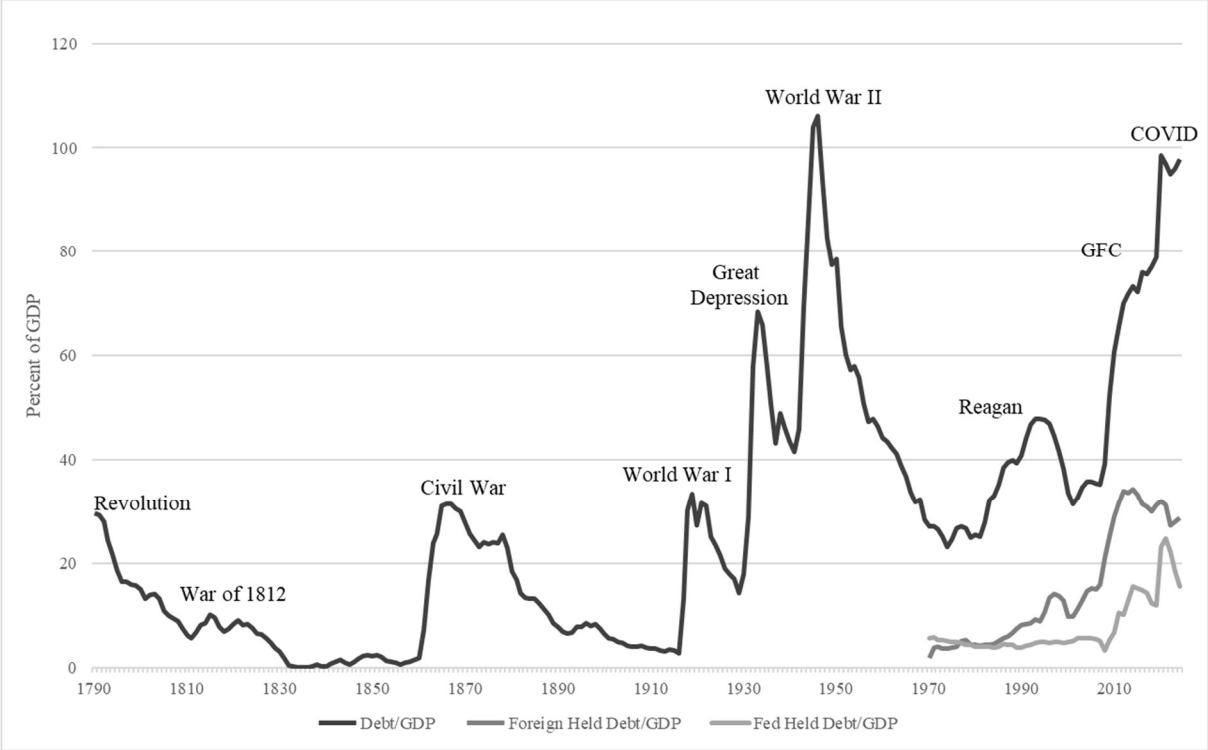
Figure 4. Deficit-GDP, 1965-2024.



Notes: The Figure reports the unified deficit, cyclically-adjusted unified deficit, and primary deficit, each as a percentage of GDP, since 1965.

Source: CBO (2024a, b)

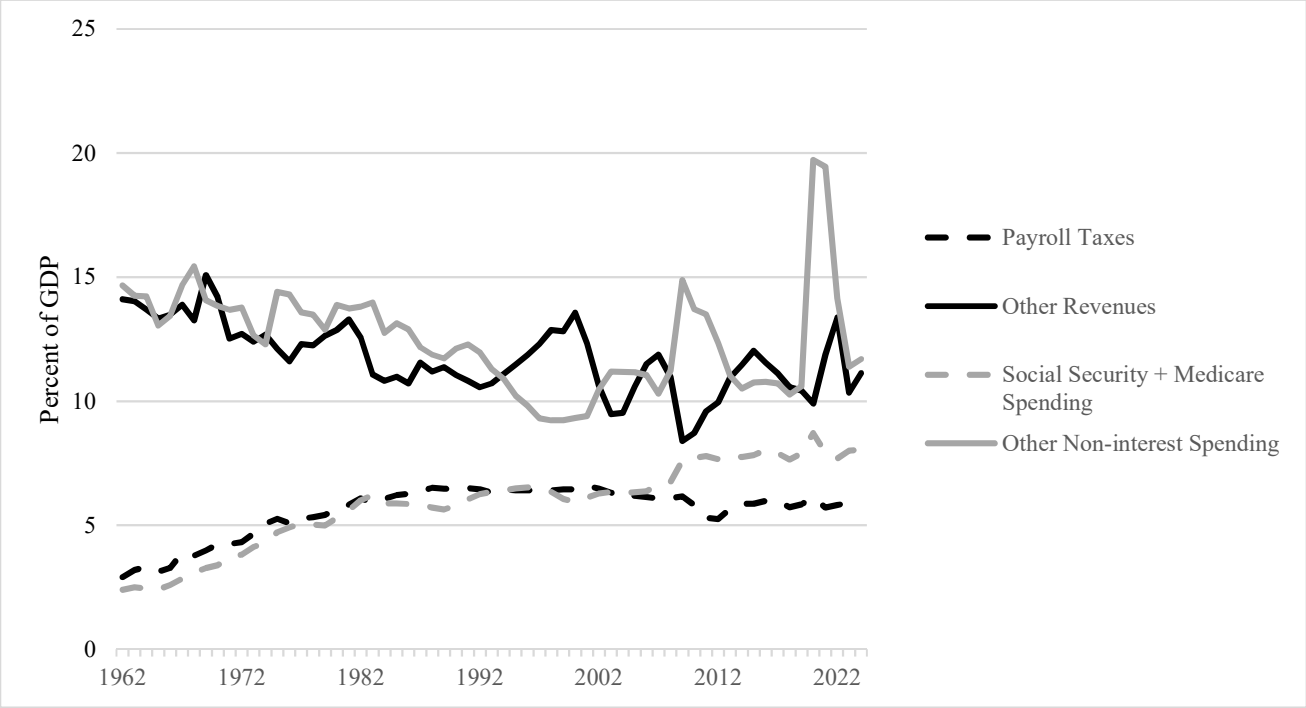
Figure 5. Debt-GDP, 1790 – 2024.



Notes: The Figure reports debt held by the public (since 1790), debt held by foreign accounts (since 1970), and debt held by the Federal Reserve (since 1970), each as a percentage of GDP. The latter two items are part of net debt held by the public. GFC refers to the Global Financial Crisis.

Source: CBO (2010); CBO (2025e); FRED (2025b); FRED (2025d)

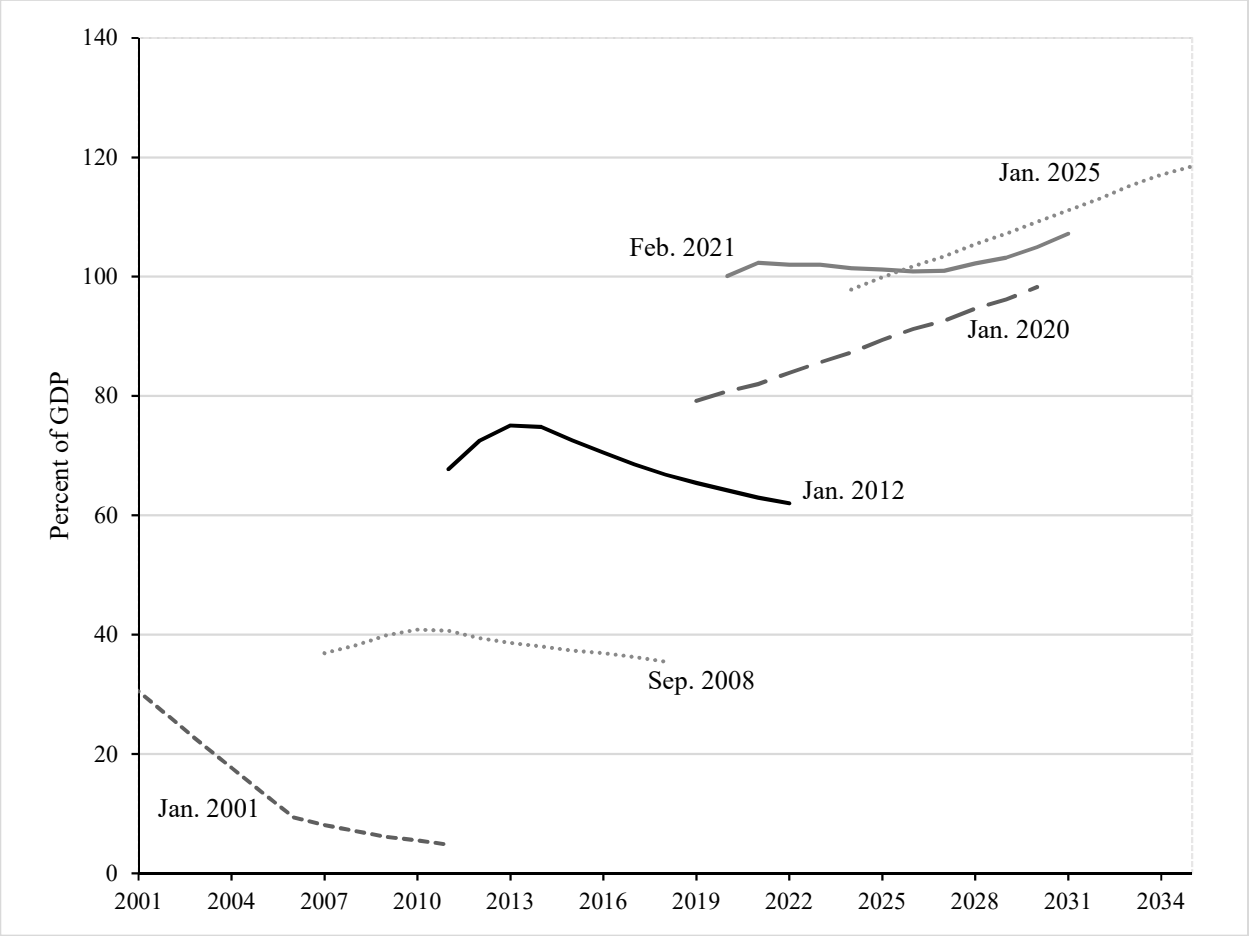
Figure 6. Payroll Tax Programs Versus Other Taxes and Spending, 1962-2024.



Note: The Figure compares payroll tax revenues, other revenues, Social Security and Medicare spending (net of offsetting receipts), and other non-interest spending, each as a percentage of GDP since 1962. Other spending excludes net interest payments.

Source: CBO (2025e), OMB (2025).

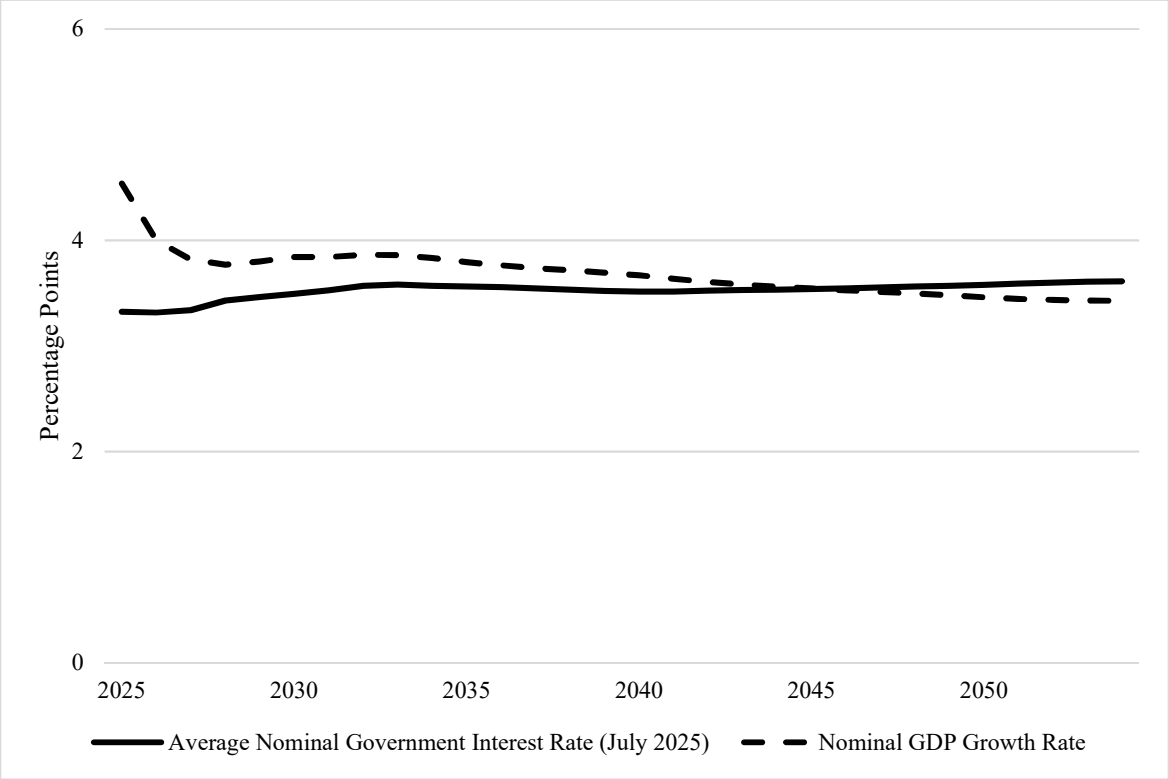
Figure 7. CBO 10-Year Current-Law Baseline Debt Projections over Time.



Notes: The Figure reports 10-year debt-GDP projections, based on current-law projections made at various times.

Source: CBO (2001, 2008, 2012, 2020, 2021a, 2025h)

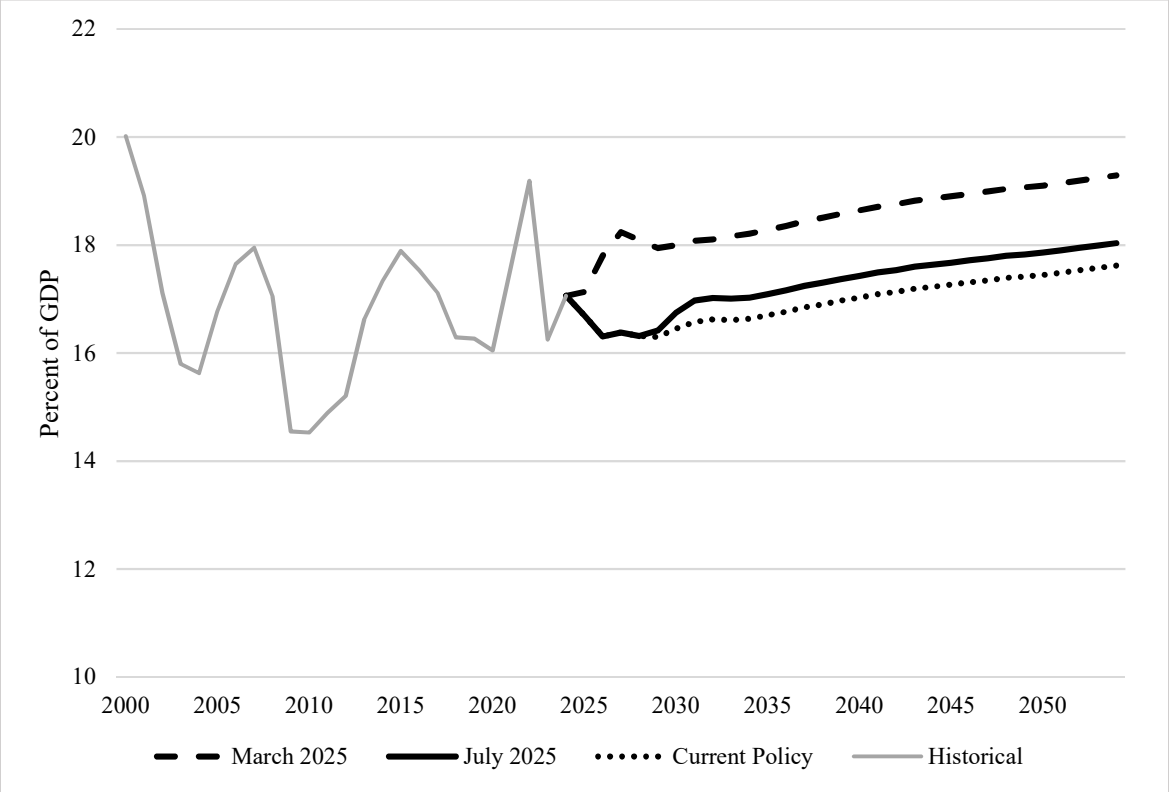
Figure 8. Nominal Average Government Interest Rate and GDP Growth, 2025-2054.



Notes: The Figure reports projections of the average nominal government interest rate and the nominal GDP growth rate through 2054.

Source: CBO (2025d, i), Authors' calculations

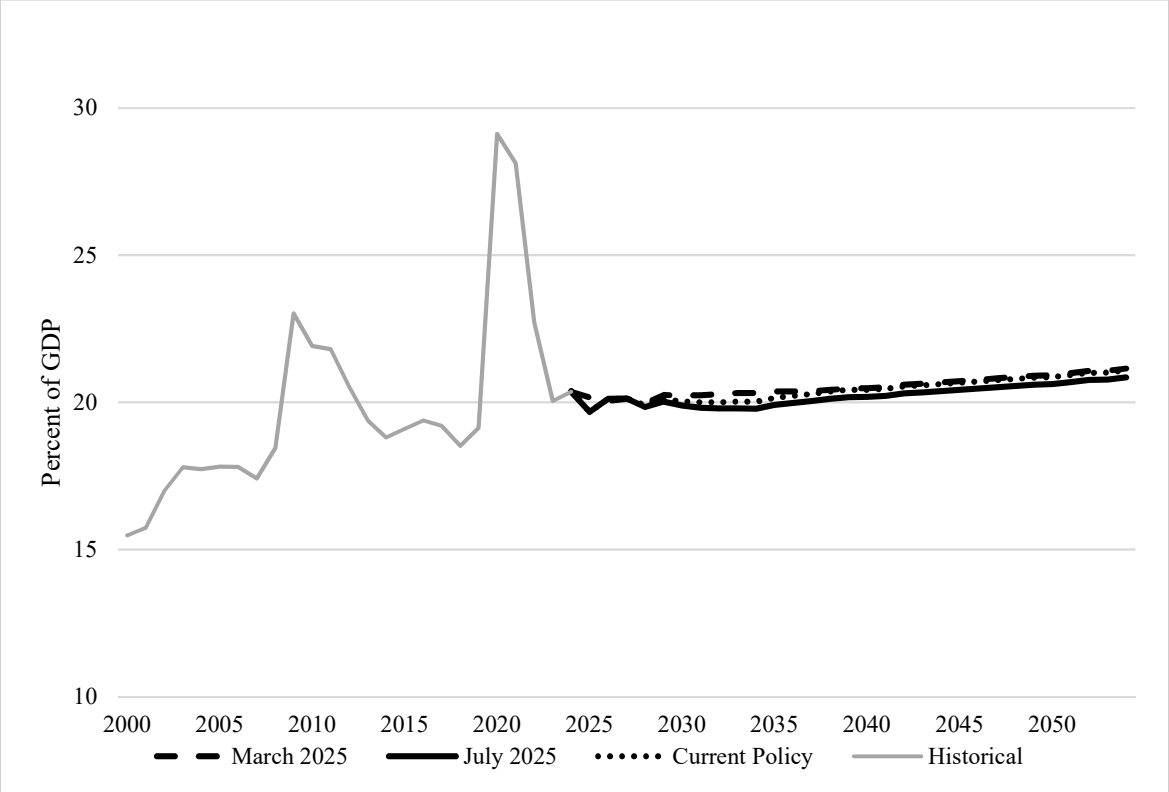
Figure 9. Total Revenue, 2000-2054.



Note: The Figure reports total federal revenue from 2000 to 2024 and projections of total revenue through 2054 under the March 2025, July 2025, and current policy baselines. Each value is calculated as a percentage of GDP.

Source: CBO (2025c, d, e, i), Authors' calculations

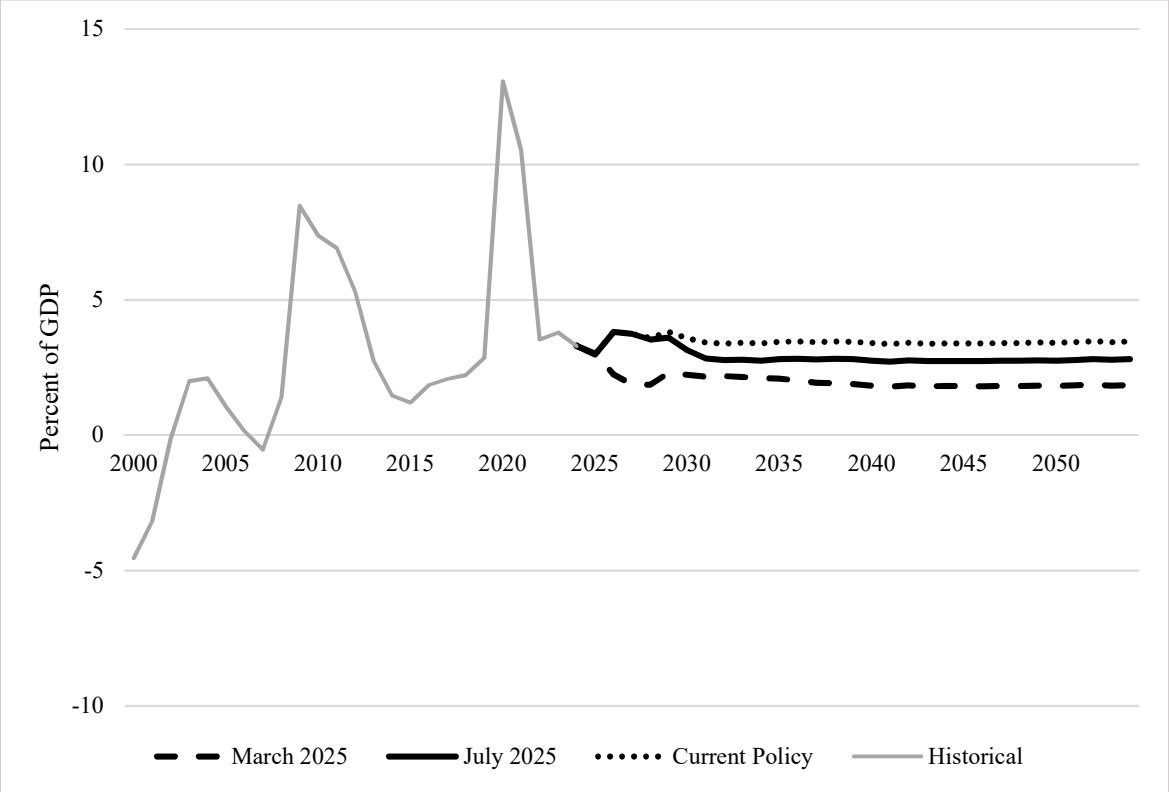
Figure 10. Non-Interest Spending, 2000-2054



Note: The Figure reports total non-interest spending from 2000 to 2024 and projections of such spending through 2054 under the March 2025, July 2025, and current policy baselines. Each value is calculated as a percentage of GDP.

Source: CBO (2025d, e, i), Authors' calculations

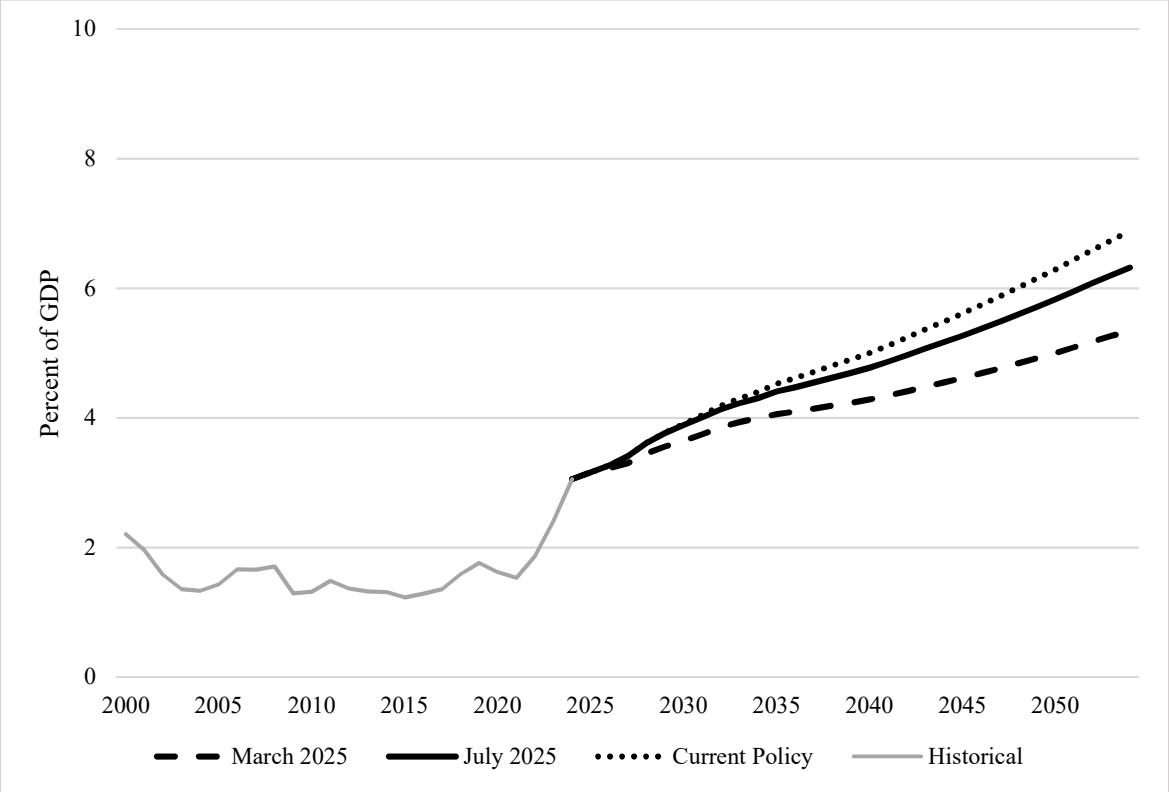
Figure 11. Primary Deficit, 2000-2054.



Note: The Figure reports primary deficits from 2000 to 2024 and projections of these deficits through 2054 under the March 2025, July 2025, and current policy baselines. Each value is calculated as a percentage of GDP.

Source: CBO (2025c, d, e, f, i), Authors' calculations

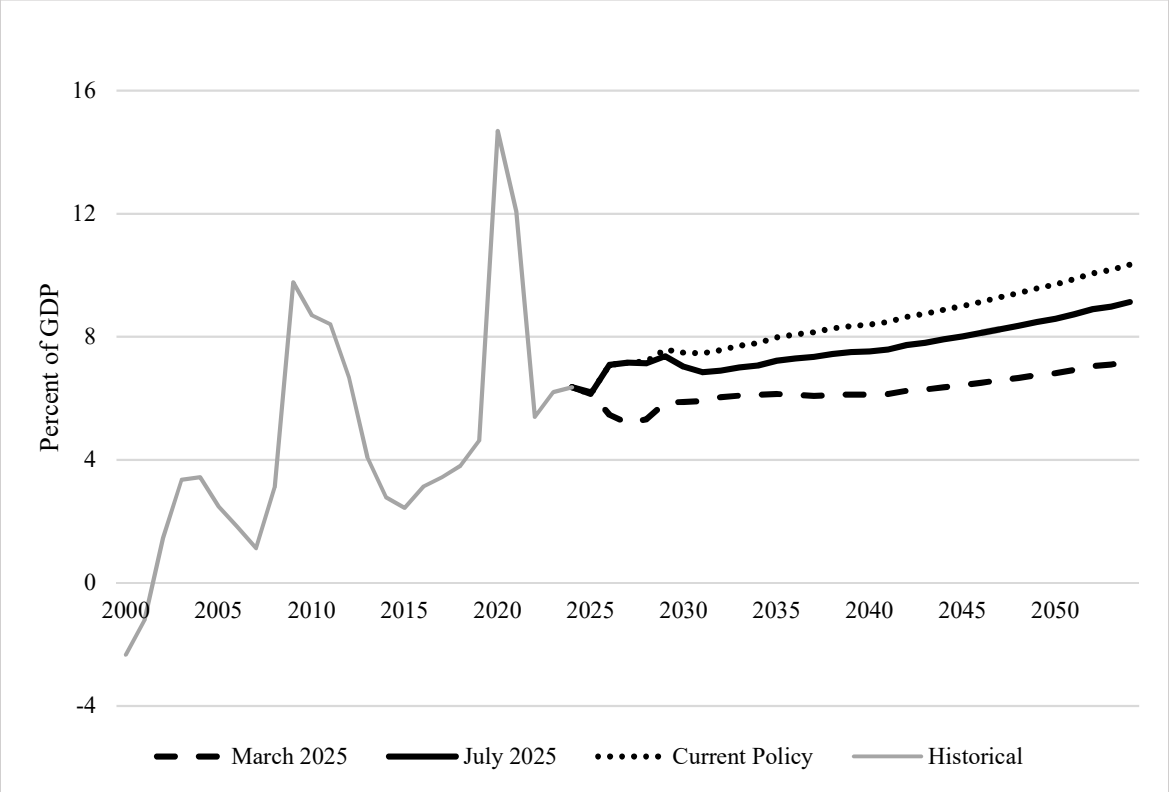
Figure 12. Net Interest Spending, 2000-2054.



Note: The Figure reports net interest spending from 2000 to 2024 and projections of such spending through 2054 under the March 2025, July 2025, and current policy baselines. Each value is calculated as a percentage of GDP.

Source: CBO (2025c, d, e, f, i), Authors' calculations

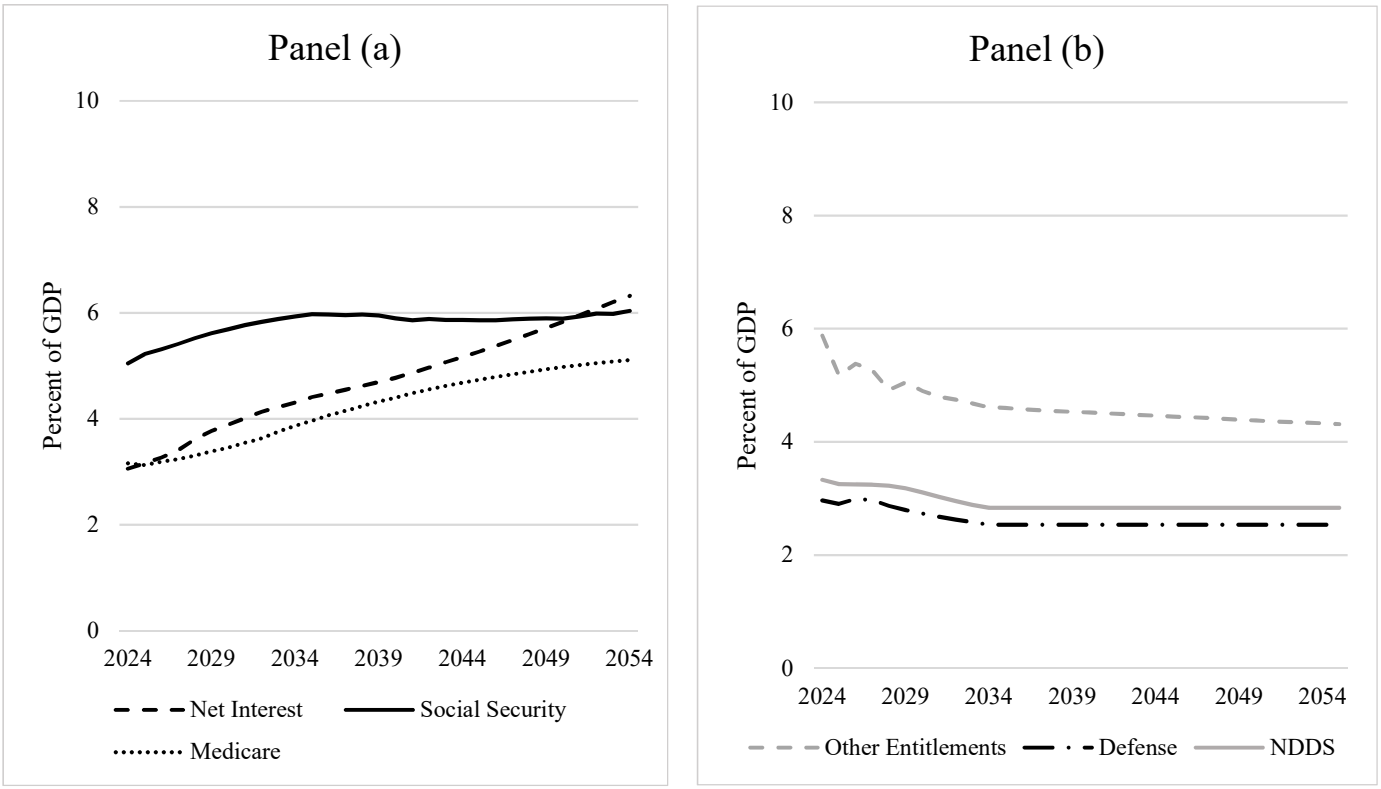
Figure 13. Unified Deficit, 2000-2054.



Note: The Figure reports unified deficits from 2000 to 2024 and projections of these deficits through 2054 under the March 2025, July 2025, and current policy baselines. Each value is calculated as a percentage of GDP.

Source: CBO (2025c, d, e, f, i), Authors' calculations

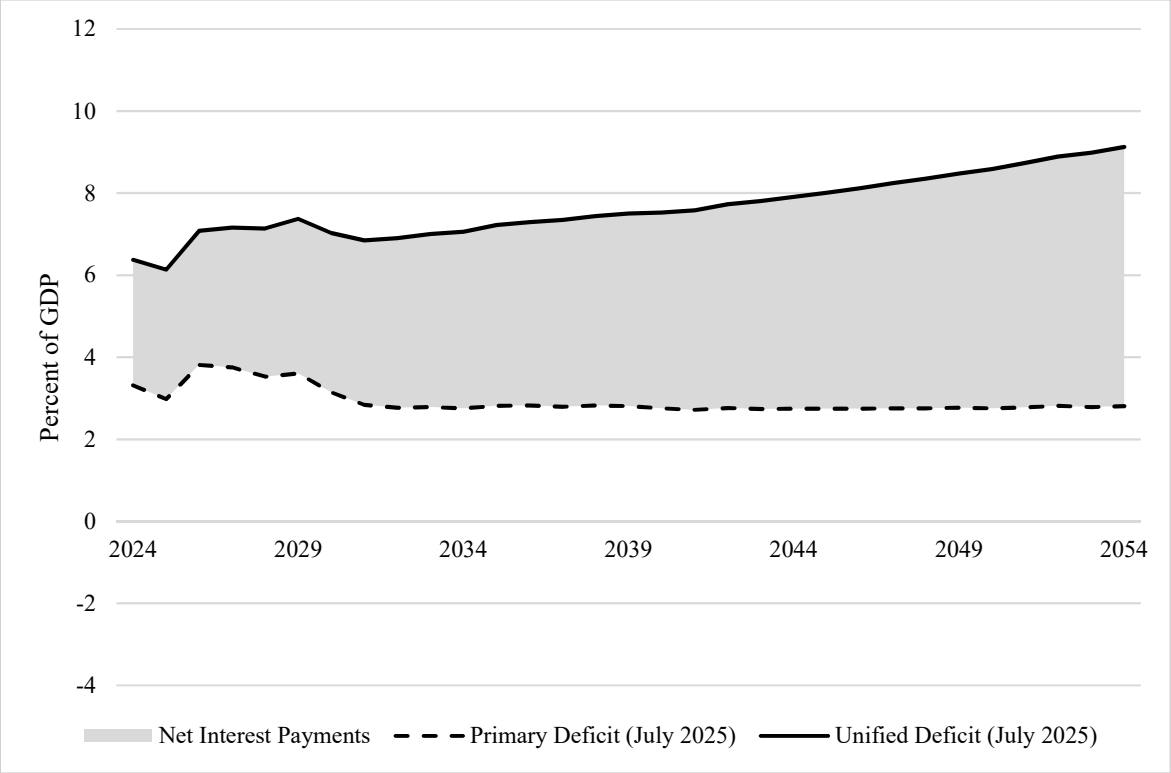
Figure 14. Major Spending Categories Under July 2025 Current Law.



Notes: The Figure displays projected expenditures through 2054 in six major federal spending categories under the July 2025 baseline, each as a percentage of GDP.

Source: CBO (2025c, d, i), Authors' calculations

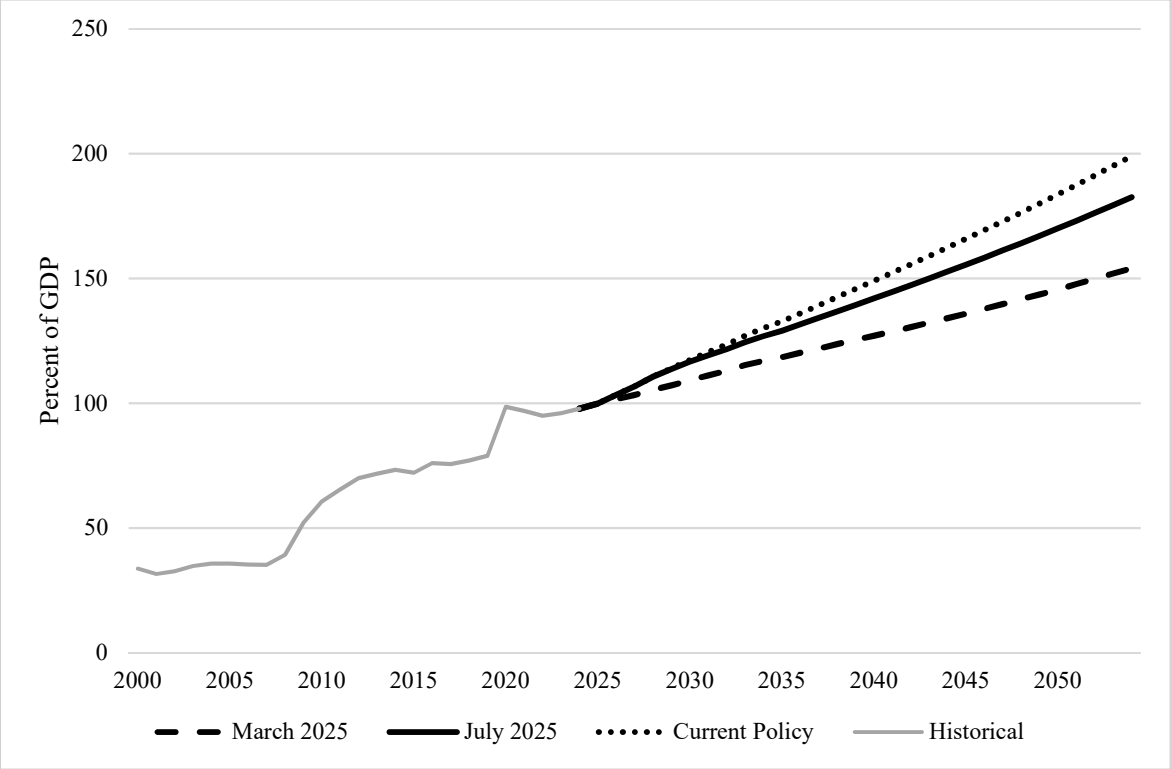
Figure 15. Primary and Unified Deficit, 2024-2054.



Notes: The Figure reports projections through 2054 of the primary and unified deficits under the July 2025 baseline. Each value is calculated as a percentage of GDP.

Source: CBO (2025c, d, i), Authors' calculations

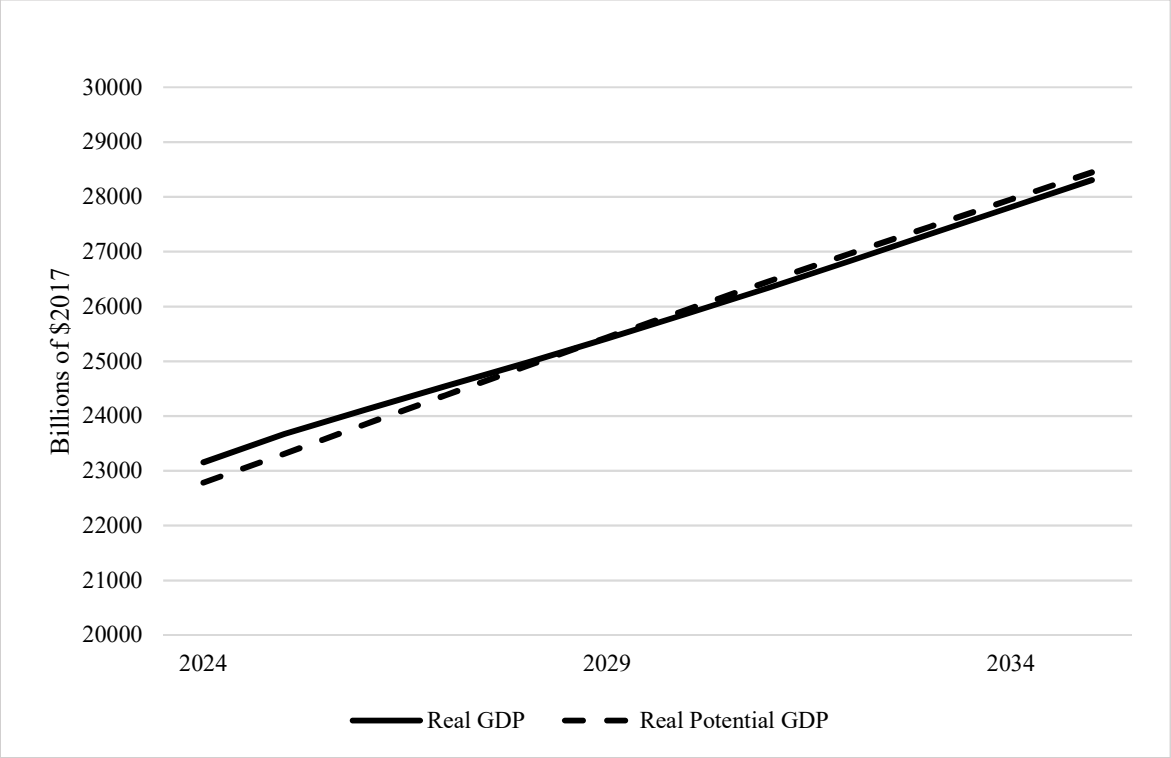
Figure 16. Public Debt, 2000-2054.



Notes: The Figure reports debt-GDP 2000 to 2024 and projections of debt-GDP through 2054 under the March 2025, July 2025, and current policy baselines. Each value is calculated as a percentage of GDP.

Source: CBO (2025c, d, e, f, i), Authors' calculations

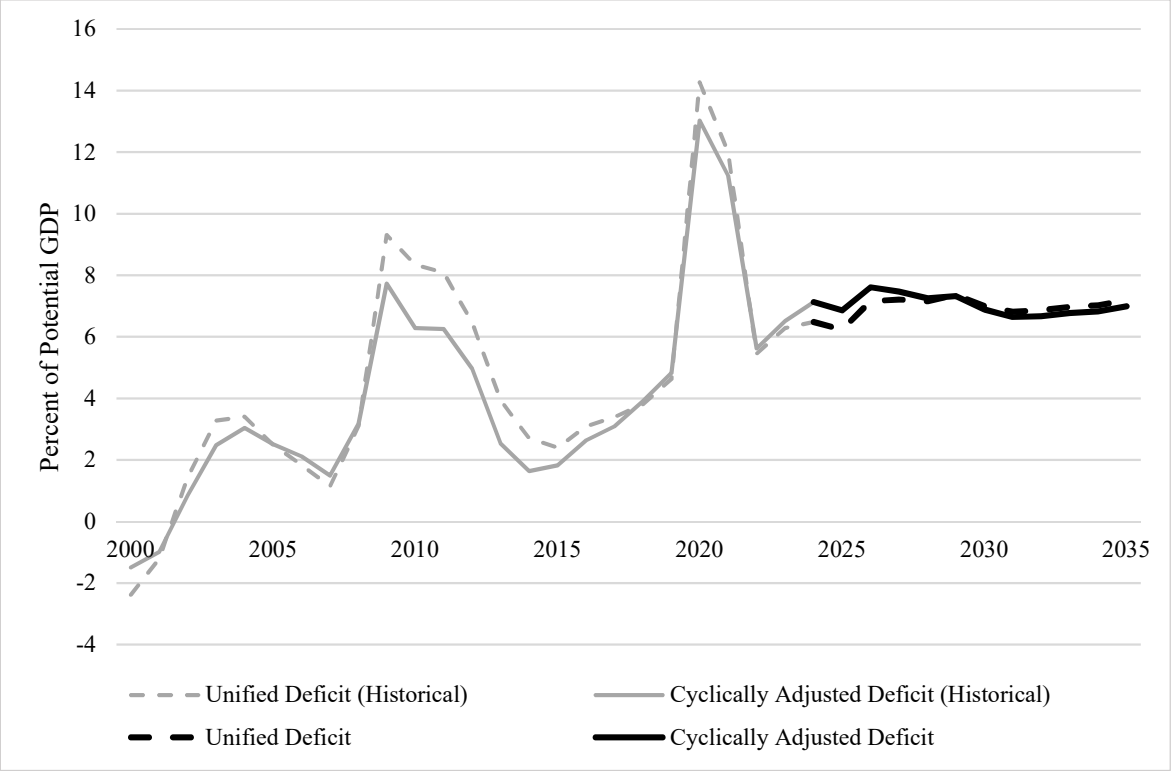
Figure 17. Real and Real Potential GDP, 2024-2035.



Notes: The Figure reports projected real GDP and real potential GDP from 2024 through 2035, in 2017 nominal dollars (billions), using a January 2025 current law baseline.

Source: CBO (2025b)

Figure 18. Cyclically Adjusted and Unified Deficit



Notes: The Figure reports unified and cyclically-adjusted deficits from 2000 to 2024 and projections of both deficits through 2035, each as a percentage of potential GDP.

Source: CBO (2024b, 2025c, d, e, i); Authors' calculations

Table 1: Summary of results (as Percentage of GDP)

Baseline	March 2025	July 2025	Current Policy
Description	CBO Long-Term Budget Outlook	Add OBBBA	Extend OBBBA
2034			
Unified deficit	6.1	7.1	7.8
Primary deficit	2.1	2.8	3.4
Revenues	18.2	17.0	16.6
Total spending	24.3	24.1	24.4
Non-interest spending	20.3	19.8	20.0
Interest spending	4.0	4.3	4.4
Debt	117.1	126.9	130.1
2054			
Unified deficit	7.2	9.1	10.3
Primary deficit	1.9	2.8	3.5
Revenues	19.3	18.0	17.6
Total spending	26.5	27.2	28.0
Non-interest spending	21.1	20.8	21.1
Interest spending	5.3	6.3	6.9
Debt	154.1	182.6	199.1

Notes: The Table presents a summary of projected outcomes as a percentage of GDP in 2034 and 2054, under the March 2025, July 2025, and current policy baselines.

Source: CBO (2025c, d, f, i), Authors' calculations

Table 2: Sensitivity to changes in economic parameters

A. CBO Estimates	
	Debt (% of GDP)
March Baseline	**154.1**
Total Factor Productivity Growth	
.5 pp faster	-40.8
.5 pp slower	+44.1
Interest Rates	
5 bp higher	+43.3
5 bp lower	-33.1
Sensitivity of Private Investment to Deficits	
Twice the effect	+95.8
No effect	-29.8
B. Interest Rate Extensions	
	Debt (% of GDP)
July CL Baseline	**182.6**
Flat rates	-6.8
3bp feedback	+20.9
July CP Baseline	**199.1**
Flat rates	-7.3
3bp feedback	+34.0

Notes: The Table reports sensitivity analysis for the long-term budget projections under the March 2025, July 2025, and current policy baselines.

Sources: CBO (2025c, d, f, i, j); Authors' calculations

Table 3: Fiscal Gaps

	Current law beginning		*Current policy beginning*	
Target	*2026*	*2031*	*2026*	*2031*
Debt = 98% of GDP	2.87	3.45	3.43	4.12
Debt = 150% of GDP	1.11	1.33	1.66	2.00
Net Interest = 3.2% of GDP	3.09	3.73	3.64	4.4
Real Net Interest Payments = 2% of GDP	0.00[40]	0.00	0.00	0.00

Notes: The Table reports fiscal gap calculations for various years, debt and net interest targets, and various baselines. Reported values reflect share-of-GDP change required for specified conditions.

Source: CBO (2025c, d, f, i); Authors' calculations

[40] No adjustment needed under current law.

Appendix I: The One Big Beautiful Bill Act of 2025

The One Big Beautiful Bill Act (OBBBA, Public Law 119-21) was signed into law by President Trump on July 4, 2025. The bill contains hundreds of provisions, and an extensive analysis of the bill is beyond the scope of this paper. Here, we describe the budgetary maneuvers that made OBBBA possible and the major provisions and their estimated 10-year budgetary effects (in the Appendix Table).

B. Aggregate effects on the budget

CBO (2025c) estimates that, relative to a current-law baseline, the bill will raise deficits by $4.1 trillion over the next 10 years on a conventional basis. (A cost estimate of an earlier version of the bill on a dynamic basis (CBO 2025g) showed even larger deficit effects, because the effect of higher debt on interest rates and hence interest payments outweighed the revenue gained from OBBBA's impact on growth.) If temporary provisions are made permanent, the bill will raise deficits by $5.5 trillion from 2025-2034.

C. Provisions

The bill raises the debt limit by $5 trillion. The major revenue impact of the bill comes from extending and expanding provisions originally enacted in the Tax Cuts and Jobs Act (TCJA) of 2017. The Bill makes permanent TCJA's changes to the income tax, estate tax, and opportunity zones. This includes lower income tax rates, a higher standard deduction, and elimination of the personal exemption in the income tax and a higher effective exemption in the estate tax. In addition, it makes several provisions more generous. The section 199A deduction for pass-through businesses is expanded in several ways. The estate tax threshold, the child credit, the standard deduction, and other provisions become more generous, all on a permanent basis. For 2025 to 2028, the state and local tax deduction limit is increased to $40,000 (from

$10,000) for households with income below $500,000.

OBBBA also restores a variety of business and international tax provisions that had been enacted in TCJA originally but were phased out or phased down over time. These items include full expensing of qualified investments and R&D costs, and a less stringent limit on deductible interest payments. The major international provisions – GILTI, BEAT, FDII, and rules regarding foreign tax credits and expense allocation – are modified somewhat and made permanent. Also, full expensing will apply through 2028 to investments in structures used in manufacturing. Besides TCJA extensions and modification, several Trump campaign proposals made their way into the bill, including reductions in tax on tips, overtime, Social Security benefits (in the form of an extra tax deduction for seniors), and auto loans – all on a temporary basis with expiration slated for 2028.

The major revenue raising provisions were the elimination or restriction of energy and clean vehicle tax credits that were enacted in the Inflation Reduction Act of 2022. On the environmental note, it repeals unspent spending originally intended for IRA programs through DOE, EPA, DOT, GSA, and NOAA, and requires leasing of public lands and increased logging (CAP 2025).

The major spending reductions apply to Medicaid, SNAP, and changes to student loans. By Congressional committee, outlays fall by $21 billion for Energy and Natural Resources, $44 billion for Commerce, Science, and Transportation, $121 billion for Agriculture, Nutrition, and Forestry, and $284 billion for Health, Education, Labor, and Pensions. By major program, outlays fall by $990 trillion for Medicaid, $186 billion for SNAP, and $320 billion through changes to student loans. For SNAP, OBBBA includes harsher paperwork requirements, restricts eligibility for immigrants, cuts utility deductions for beneficiaries, and more. For Medicaid, it

similarly restricts eligibility for immigrants and introduces a work requirement (CAP 2025).

There are spending increases, too. Outlays rise by $150 billion for defense and $131 billion for homeland security, mostly for border infrastructure and enforcement. The Judiciary Committee also authorized $9 billion in net spending, consisting mostly of immigration and law enforcement funding, offset by higher immigration and visa fees.

Appendix Table: Deficit Effects of Key Provisions of the One Big Beautiful Bill Act

Provision	Deficit Effect 2025-2034 ($ Billions)	
	Relative to Current Law	Relative to Current Policy
Subtitle A - Taxes	**-4,649**	**-889**
Chapter 1: Providing Permanent Tax Relief for Middle-Class Families and Workers (Extend TCJA bracket and rate structure)	-3,963	-612
Chapter 2: Delivering on Presidential Priorities to Provide New Middle-Class Tax Relief (Temporarily exempt tips, overtime pay, and car loan interest)	-167	-167
Chapter 3: Establishing Certainty and Competitiveness for American Job Creators (Business taxation changes, including full expensing, depreciation, and international changes)	-920	-569
Chapter 4: Investing in American Families, Communities, and Small Businesses (Extend and modify certain credits and deductions, including Opportunity Zones)	-156	-82
Chapter 5: Ending Green New Deal Spending, Promoting America-First Energy, and Other Reforms (Repeal IRA clean energy and vehicle credits)	499	499
Chapter 6: Enhancing Deduction and Income Tax Credit Guardrails, and Other Reforms (Limit certain credits and deductions)	59	41
Subtitle B - Health	**1,031**	**1,031**
Chapter 1: Medicaid	964	964
Chapter 2: Medicare	-2	-2
Chapter 3: Health Tax (Restrict eligibility for the Premium Tax Credit)	116	116
Chapter 4: Protecting Rural Hospitals and Providers (Fund a "rural health transformation program")	-47	-47
Net interest:	**-718**	**-832**
TOTAL	**-4,113**	**-446**

Notes: The Table compares the deficit effects of key provisions under current law and current policy baseline in billions of dollars. All values except net interest under current policy come directly from CBO or JCT estimates. Net interest under current policy combines the estimated effects of making revenue changes permanent from CBO (2025c) and the estimated effects of making discretionary spending permanent from the CBO (2025f) net interest workbook.

Source: JCT (2025), CBO (2025c, d, f, i), Authors' calculations

Appendix II: Budget Details

In this appendix, we highlight several details that, while not central to the issues above, may help clarify certain aspects of the budget. For example, in a simple world, the debt at the end of year t would equal the sum of debt at the end of year t-1 and government borrowing during year t. While that statement is a reasonable rule-of-thumb that usually leads to close approximations of the debt level, it is not technically correct for at least two reasons: the treatment of federal credit programs and the presence of "below-the-line" financing.

The Budgetary Treatment of Federal Credit Programs

Almost all federal spending is counted on a cash-flow basis. The major exception involves federal credit programs (Congressional Research Service 2014). In pursuit of policy goals regarding home ownership, post-secondary education, and many other activities, the federal government provides direct loans and guarantees loans made in the private sector. In order to put spending and credit programs on an equal basis, when the government issues a loan or a loan guarantee, the budget records the estimated subsidy (in present value) in the loan as an outlay in the year of issuance and the deficit in that year rises by that amount. In contrast, in that same year, the debt would rise by the loan size for a direct loan and by zero for a loan guarantee.

For example, a $100 direct loan with a 20% subsidy would raise outlays and the deficit in the year of issuance by $20 but raise the debt by $100. A loan guarantee of the same size loan and with the same subsidy would raise outlays and the deficit by the same $20 but not raise debt at all in the year of issuance (assuming that there is no default in the first year). When borrowers pay back their direct loans or the government disburses funds on guaranteed loans that default, those flows are considered "below-the-line" financing and do not affect the deficit, unless they

result in an updated estimate of the budgetary cost embedded in the program (CBO 2020).

Occasionally, these issues drive significant differences between the change in the debt and the deficit. For example, President Biden's student loan forgiveness plan, announced on August 22, 2022, raised the deficit by about $400 billion, representing the net present value of reduced future repayments from the affected loans. This was a one-time cost, applied in FY 2023 and treated as an increase in mandatory spending. The debt did not change. On June 30, 2023, the Supreme Court struck down the plan, which reduced mandatory outlays in FY2023, again with no change in debt (CBO 2023).

Similar divergences between deficits and debt emerged from the Troubled Asset Relief Program (TARP), which ran from October 2008 to October 2010, and included $700 billion of initial authorization for loans, loan guarantees, equity investments and asset purchases. CBO (2015) estimates that ultimately the net subsidy of the program was about $31 billion, although initial estimates were higher, resulting in a series of deficit reductions after the initial overestimate.

Below-the-Line Financing

The other issue leading to violations of the rule-of-thumb is the presence of "below-the-line" financing or "means of financing" (OMB 2024). Above-the-line transactions refer to changes in revenue or spending that affects the unified deficit. Below-the-line financing refers to activities that affect government borrowing (and therefore the debt) but are not classified as either outlays or revenues (and so do not affect the deficit). This includes items such as seignorage, cash flows related to direct and guaranteed lending (see above), changes in Treasury operating cash balances, and net purchases or sales of non-federal assets by the Treasury.

Federal Financial Assets

Besides its debt, the Federal government holds financial assets in the form of outstanding student loans, cash balances and other transactions and instruments. In 2024, these assets equaled about $2.2 trillion or 7.6% of GDP. By 2035, they are expected to rise slightly in absolute terms but fall to 5.6% of GDP (CBO 2025h). These assets are not netted against debt held by the public in the typical calculation of outstanding debt. Nor do the assets affect the difference between the annual deficit and annual changes in the debt.

On-Budget Versus Off-Budget Programs

The budget designates some programs as "on budget" and others as "off budget." Almost all spending programs and revenue sources are "on-budget." The "off-budget" programs are Social Security and the Postal Service. Off-budget status is generally meant to separate programs with dedicated funding sources (like payroll taxes for Social Security) from the broader budget process, ostensibly to protect them from political interference or to emphasize their self-financing nature (Tax Policy Center 2024b).

Both programs, however, are included in the unified budget, though it was not always so. From its inception until reforms that took effect in fiscal year 1969, Social Security was not part of the unified budget (DeWitt 2007). Since then, it has been part of the unified budget, though its "on budget" status has changed at times. Slavov and Shoven (2004) and Smetters (2004) provide evidence that including Social Security in the unified budget has caused trust fund surpluses to be offset by increases in deficits in other parts of the budget.

Receipts versus Revenues

There is a difference between receipts and revenues in the federal budget. Receipts equal the sum of revenues plus offsetting receipts. Revenues are defined as funds that are collected and

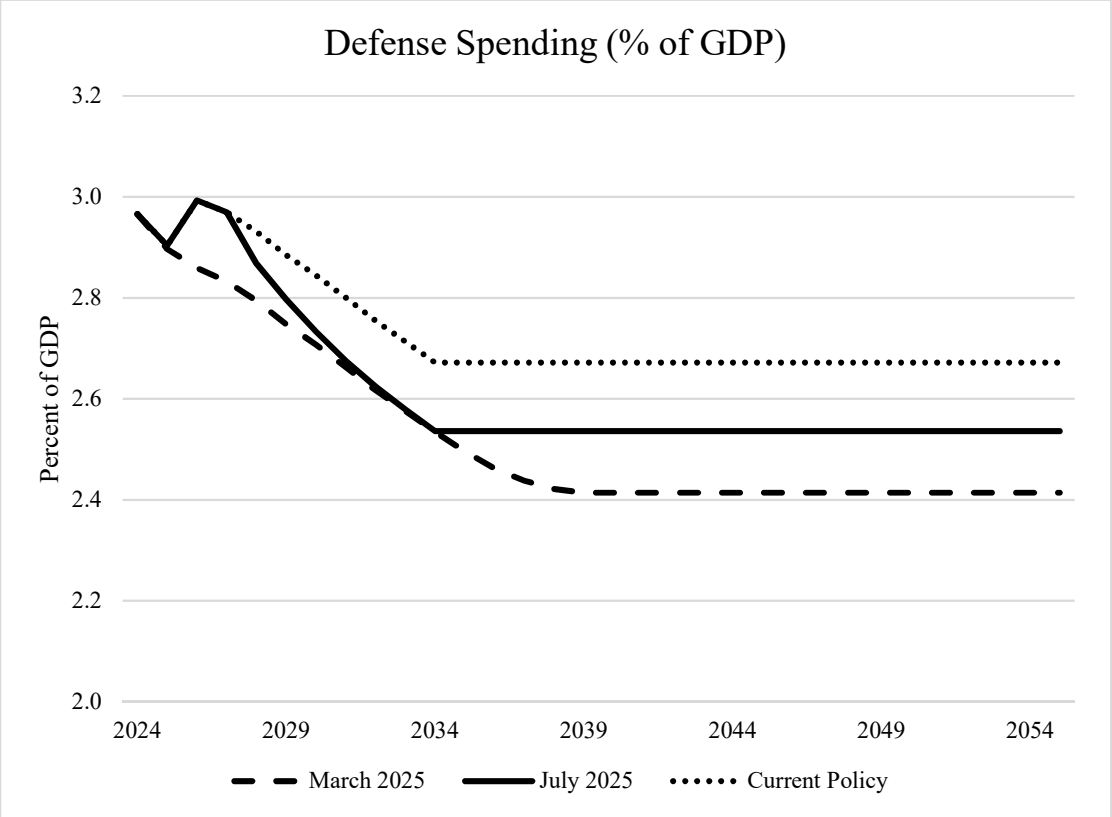
used to directly reduce the budget deficit. This includes all the major taxes. Offsetting receipts are funds that are collected and counted as negative outlays. This includes Medicare premiums paid by beneficiaries and contributions made by federal employees to federal retirement programs. In FY 2024, revenues equaled $4.9 trillion and offsetting receipts equaled $0.3 trillion (CBO 2021, 2024).

Federal Reserve remittances

By law, the Federal Reserve is required to remit its net income to the Treasury, for both budgetary and accountability purposes. The Fed's gross income comes mainly from interest on assets on its balance sheets, primarily U.S. Treasury securities and mortgage-backed securities (Federal Reserve Board 2021). Net income is determined after deducting various expenses (including operating costs, required payments on reserves, dividends to member banks, and allocations to the Fed's own surplus fund) (Carpenter et al. 2013).

Remittances have fluctuated significantly over time, due to changes in the size and composition of the Fed's balance sheet and interest rates. Before the GFC, the Fed's balance sheet was small (in retrospect), and remittances averaged between $20 and $30 billion per year. During the GFCs, the Fed's balance sheet grew substantially due to quantitative easing and other policies and remittances rose to over $75 billion, peaking in 2015 at $117 billion. Remittances remained elevated, somewhat below $100 billion annually, through 2021 (Anderson et al. 2022). The rise in interest rates (and hence payments on reserves) starting in 2022, however, caused the Fed's net earnings to go negative, so that the Fed has not sent funds to the Treasury since then (and the Fed has been booking deferred assets, indicating an obligation to remit in the future) (Labonte 2025).

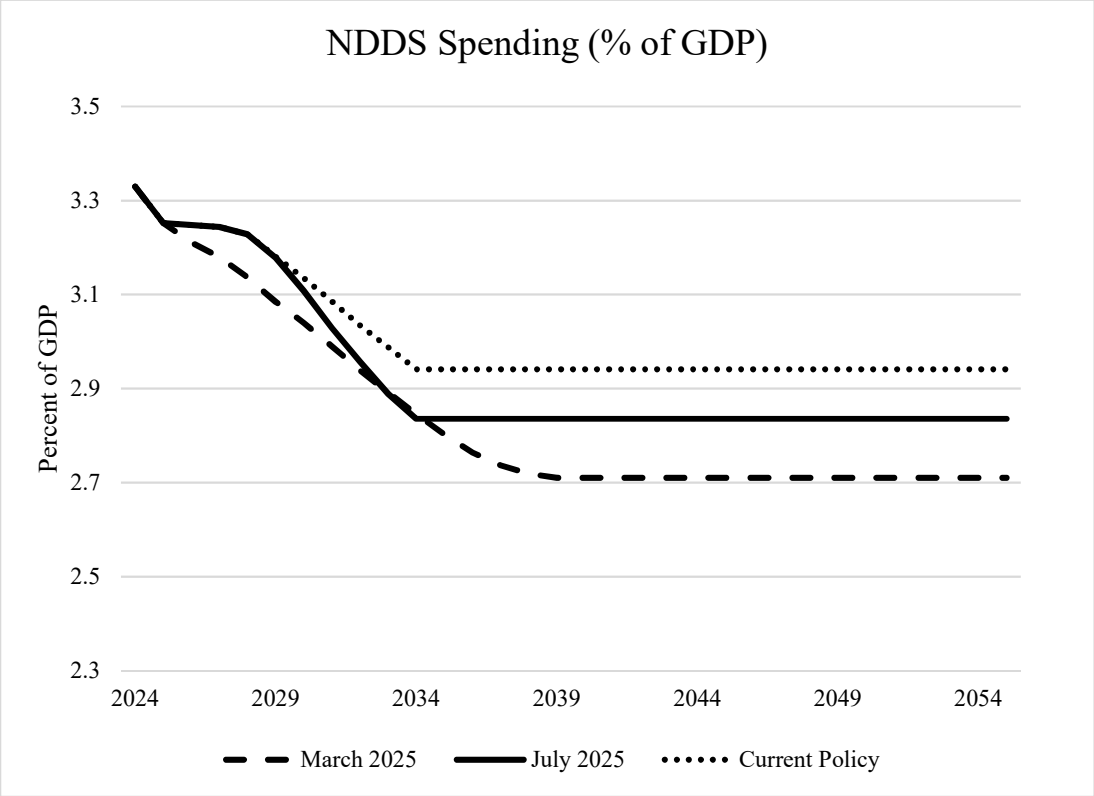
Appendix Figure 1: Defense Spending Under Each Baseline



Notes: The Figure shows defense spending under the March 2025, July 2025, and current policy baselines.

Sources: CBO (2025i), Authors' calculations.

Appendix Figure 2: Non-defense Discretionary Spending Under Each Baseline



Notes: The Figure shows defense spending under the March 2025, July 2025, and current policy baselines.

Sources: CBO (2025i), Authors' calculations.

Appendix Table 1. January 2025 Current Law Baseline

Year	Total Revenue	Non-Interest Spending	Primary Deficit	Net Interest	Total Spending	Unified Deficit	Public Debt
2024	4,918.1 (17.060)	5,944.5 (20.620)	1,026.4 (3.560)	881.1 (3.056)	6,825.6 (23.677)	1,907.5 (6.617)	28,199.3 (97.819)
2025	5,162.9 (17.132)	6,075.9 (20.161)	913.0 (3.030)	952.3 (3.160)	7,028.1 (23.321)	1,865.3 (6.189)	30,102.7 (99.889)
2026	5,580.3 (17.805)	6,283.3 (20.048)	703.0 (2.243)	1,010.3 (3.223)	7,293.6 (23.272)	1,713.3 (5.466)	31,882.6 (101.727)
2027	5,934.8 (18.240)	6,546.5 (20.120)	611.7 (1.880)	1,075.2 (3.305)	7,621.8 (23.424)	1,686.9 (5.185)	33,636.1 (103.375)
2028	6,108.4 (18.091)	6,738.8 (19.958)	630.4 (1.867)	1,164.5 (3.449)	7,903.3 (23.407)	1,794.9 (5.316)	35,600.6 (105.438)
2029	6,289.9 (17.947)	7,096.9 (20.249)	807.0 (2.303)	1,247.2 (3.559)	8,344.1 (23.808)	2,054.2 (5.861)	37,580.5 (107.228)
2030	6,549.5 (17.996)	7,361.7 (20.228)	812.2 (2.232)	1,327.5 (3.648)	8,689.2 (23.876)	2,139.7 (5.879)	39,747.7 (109.216)
2031	6,834.1 (18.084)	7,649.9 (20.242)	815.8 (2.159)	1,417.0 (3.749)	9,066.9 (23.992)	2,232.8 (5.908)	41,992.4 (111.114)
2032	7,106.3 (18.104)	7,963.0 (20.287)	856.7 (2.182)	1,513.9 (3.857)	9,476.9 (24.144)	2,370.6 (6.039)	44,371.8 (113.042)
2033	7,404.5 (18.163)	8,281.2 (20.313)	876.7 (2.150)	1,604.5 (3.936)	9,885.7 (24.249)	2,481.2 (6.086)	46,985.0 (115.250)
2034	7,708.3 (18.210)	8,600.8 (20.318)	892.6 (2.109)	1,693.6 (4.001)	10,294.4 (24.319)	2,586.1 (6.109)	49,555.5 (117.068)
2035	8,031.4 (18.280)	8,947.4 (20.364)	916.0 (2.085)	1,782.6 (4.057)	10,730.0 (24.422)	2,698.6 (6.142)	52,055.9 (118.480)
2036	8,366.4 (18.352)	9,284.2 (20.365)	917.8 (2.013)	1,868.4 (4.098)	11,152.6 (24.463)	2,786.1 (6.111)	54,824.3 (120.256)
2037	8,721.5 (18.442)	9,634.9 (20.373)	913.4 (1.931)	1,959.9 (4.144)	11,594.8 (24.517)	2,873.3 (6.076)	57,683.0 (121.971)
2038	9,076.8 (18.505)	10,017.9 (20.423)	941.1 (1.919)	2,054.9 (4.189)	12,072.7 (24.612)	2,995.9 (6.108)	60,672.7 (123.692)
2039	9,449.2 (18.578)	10,407.9 (20.463)	958.7 (1.885)	2,152.6 (4.232)	12,560.6 (24.695)	3,111.4 (6.117)	63,785.7 (125.406)
2040	9,829.8 (18.642)	10,794.1 (20.470)	964.4 (1.829)	2,258.5 (4.283)	13,052.7 (24.754)	3,222.9 (6.112)	67,009.1 (127.079)
2041	10,225.6 (18.712)	11,204.0 (20.502)	978.5 (1.790)	2,373.5 (4.343)	13,577.5 (24.845)	3,352.0 (6.134)	70,362.2 (128.755)
2042	10,619.8 (18.757)	11,657.3 (20.589)	1,037.5 (1.832)	2,497.6 (4.411)	14,154.9 (25.000)	3,535.1 (6.244)	73,899.9 (130.521)

2043	11,037.8 (18.821)	12,095.2 (20.624)	1,057.4 (1.803)	2,627.5 (4.480)	14,722.7 (25.104)	3,684.9 (6.283)	77,587.6 (132.295)
2044	11,455.3 (18.861)	12,554.7 (20.671)	1,099.4 (1.810)	2,761.2 (4.546)	15,315.9 (25.217)	3,860.6 (6.356)	81,450.7 (134.105)
2045	11,887.2 (18.902)	13,023.3 (20.708)	1,136.1 (1.807)	2,902.5 (4.615)	15,925.8 (25.323)	4,038.6 (6.422)	85,492.9 (135.941)
2046	12,336.4 (18.948)	13,511.5 (20.752)	1,175.1 (1.805)	3,052.4 (4.688)	16,563.9 (25.441)	4,227.5 (6.493)	89,724.8 (137.809)
2047	12,798.8 (18.991)	14,020.0 (20.803)	1,221.2 (1.812)	3,210.9 (4.764)	17,230.8 (25.567)	4,432.0 (6.576)	94,161.4 (139.715)
2048	13,281.1 (19.041)	14,541.6 (20.848)	1,260.5 (1.807)	3,377.5 (4.842)	17,919.1 (25.690)	4,638.0 (6.649)	98,804.3 (141.652)
2049	13,763.2 (19.068)	15,076.4 (20.887)	1,313.2 (1.819)	3,551.5 (4.920)	18,627.8 (25.807)	4,864.7 (6.740)	103,675.4 (143.633)
2050	14,264.2 (19.101)	15,612.7 (20.906)	1,348.5 (1.806)	3,734.9 (5.001)	19,347.6 (25.908)	5,083.4 (6.807)	108,767.7 (145.647)
2051	14,791.9 (19.148)	16,201.5 (20.972)	1,409.6 (1.825)	3,931.5 (5.089)	20,133.0 (26.061)	5,341.1 (6.914)	114,117.2 (147.721)
2052	15,338.7 (19.196)	16,822.0 (21.052)	1,483.3 (1.856)	4,137.0 (5.177)	20,959.0 (26.229)	5,620.3 (7.034)	119,746.4 (149.857)
2053	15,901.4 (19.240)	17,407.1 (21.061)	1,505.7 (1.822)	4,349.2 (5.262)	21,756.4 (26.324)	5,854.9 (7.084)	125,610.6 (151.980)
2054	16,489.2 (19.290)	18,065.0 (21.133)	1,575.8 (1.843)	4,567.5 (5.343)	22,632.6 (26.476)	6,143.4 (7.187)	131,765.7 (154.144)

Appendix Table 2. July 2025 Baseline

Year	Total Revenue	Non-Interest Spending	Primary Deficit	Net Interest	Total Spending	Unified Deficit	Public Debt
2024	4,918.1 (17.060)	5,944.5 (20.620)	1,026.4 (3.560)	881.1 (3.056)	6,825.6 (23.677)	1,907.5 (6.617)	28,199.3 (97.819)
2025	5,031.2 (16.695)	5,989.9 (19.876)	958.8 (3.181)	952.7 (3.161)	6,942.7 (23.038)	1,911.5 (6.343)	30,149.0 (100.043)
2026	5,115.7 (16.323)	6,193.9 (19.763)	1,078.2 (3.440)	1,019.0 (3.251)	7,212.9 (23.014)	2,097.2 (6.691)	32,312.8 (103.100)
2027	5,341.9 (16.417)	6,453.7 (19.834)	1,111.8 (3.417)	1,099.8 (3.380)	7,553.6 (23.215)	2,211.7 (6.797)	34,591.0 (106.309)
2028	5,522.1 (16.355)	6,642.5 (19.673)	1,120.4 (3.318)	1,207.3 (3.576)	7,849.8 (23.249)	2,327.8 (6.894)	36,972.5 (109.501)
2029	5,770.3 (16.464)	6,996.9 (19.964)	1,226.6 (3.500)	1,307.1 (3.730)	8,304.1 (23.694)	2,533.7 (7.230)	39,547.9 (112.842)
2030	6,112.2 (16.795)	7,257.9 (19.943)	1,145.7 (3.148)	1,402.3 (3.853)	8,660.2 (23.796)	2,548.0 (7.001)	42,123.3 (115.743)
2031	6,432.1 (17.020)	7,542.2 (19.957)	1,110.1 (2.937)	1,504.6 (3.981)	9,046.8 (23.938)	2,614.7 (6.919)	44,750.0 (118.411)
2032	6,699.4 (17.067)	7,851.1 (20.002)	1,151.7 (2.934)	1,614.1 (4.112)	9,465.1 (24.113)	2,765.7 (7.046)	47,524.5 (121.074)
2033	6,952.3 (17.053)	8,164.9 (20.028)	1,212.6 (2.975)	1,718.5 (4.215)	9,883.4 (24.243)	2,931.2 (7.190)	50,431.7 (123.704)
2034	7,227.2 (17.073)	8,480.1 (20.033)	1,253.0 (2.960)	1,822.9 (4.306)	10,303.1 (24.340)	3,075.9 (7.266)	53,480.8 (126.341)
2035	7,530.2 (17.139)	8,821.5 (20.078)	1,291.3 (2.939)	1,928.1 (4.388)	10,749.6 (24.466)	3,219.4 (7.327)	56,669.2 (128.980)
2036	7,844.3 (17.206)	9,153.6 (20.078)	1,309.3 (2.872)	2,042.0 (4.479)	11,195.6 (24.557)	3,351.3 (7.351)	60,002.4 (131.614)
2037	8,177.2 (17.291)	9,499.3 (20.086)	1,322.1 (2.796)	2,161.0 (4.569)	11,660.3 (24.656)	3,483.1 (7.365)	63,469.9 (134.207)
2038	8,510.3 (17.350)	9,877.1 (20.136)	1,366.8 (2.786)	2,285.3 (4.659)	12,162.4 (24.795)	3,652.1 (7.445)	67,114.6 (136.825)
2039	8,859.5 (17.418)	10,262.0 (20.176)	1,402.5 (2.757)	2,415.8 (4.750)	12,677.8 (24.925)	3,818.3 (7.507)	70,933.0 (139.458)
2040	9,216.3 (17.478)	10,642.9 (20.184)	1,426.6 (2.705)	2,552.3 (4.840)	13,195.2 (25.024)	3,978.9 (7.546)	74,911.4 (142.065)
2041	9,587.4 (17.544)	11,047.6 (20.216)	1,460.1 (2.672)	2,694.6 (4.931)	13,742.1 (25.147)	4,154.7 (7.603)	79,066.1 (144.682)
2042	9,957.1 (17.586)	11,495.4 (20.303)	1,538.3 (2.717)	2,844.0 (5.023)	14,339.3 (25.326)	4,382.3 (7.740)	83,448.4 (147.385)

2043	10,349.0 (17.646)	11,927.6 (20.338)	1,578.6 (2.692)	3,000.8 (5.117)	14,928.4 (25.454)	4,579.4 (7.808)	88,027.7 (150.096)
2044	10,740.4 (17.684)	12,381.3 (20.385)	1,640.9 (2.702)	3,165.0 (5.211)	15,546.4 (25.596)	4,806.0 (7.913)	92,833.4 (152.846)
2045	11,145.3 (17.722)	12,844.0 (20.423)	1,698.7 (2.701)	3,337.3 (5.307)	16,181.3 (25.730)	5,035.9 (8.008)	97,869.0 (155.620)
2046	11,566.6 (17.765)	13,326.2 (20.468)	1,759.6 (2.703)	3,517.7 (5.403)	16,843.9 (25.871)	5,277.4 (8.106)	103,146.2 (158.423)
2047	12,000.1 (17.805)	13,828.3 (20.518)	1,828.3 (2.713)	3,706.9 (5.500)	17,535.3 (26.018)	5,535.2 (8.213)	108,681.4 (161.259)
2048	12,452.3 (17.852)	14,343.6 (20.564)	1,891.3 (2.712)	3,905.2 (5.599)	18,248.8 (26.163)	5,796.6 (8.310)	114,478.2 (164.123)
2049	12,904.2 (17.878)	14,871.9 (20.604)	1,967.6 (2.726)	4,113.1 (5.698)	18,985.0 (26.302)	6,080.7 (8.424)	120,558.5 (167.023)
2050	13,374.0 (17.909)	15,401.4 (20.623)	2,027.5 (2.715)	4,330.8 (5.799)	19,732.2 (26.423)	6,358.2 (8.514)	126,917.5 (169.950)
2051	13,868.8 (17.953)	15,983.3 (20.690)	2,114.5 (2.737)	4,558.8 (5.901)	20,542.2 (26.591)	6,673.4 (8.638)	133,590.7 (172.928)
2052	14,381.4 (17.998)	16,596.6 (20.770)	2,215.2 (2.772)	4,798.4 (6.005)	21,395.0 (26.775)	7,013.6 (8.777)	140,604.0 (175.959)
2053	14,909.1 (18.039)	17,174.3 (20.780)	2,265.2 (2.741)	5,049.1 (6.109)	22,223.3 (26.889)	7,314.3 (8.850)	147,918.4 (178.971)
2054	15,460.1 (18.086)	17,824.5 (20.852)	2,364.4 (2.766)	5,311.4 (6.213)	23,136.0 (27.065)	7,675.8 (8.979)	155,595.5 (182.021)

Appendix Table 3. Current Policy Baseline

Year	Total Revenue	Non-Interest Spending	Primary Deficit	Net Interest	Total Spending	Unified Deficit	Public Debt
2024	4,918.1 (17.060)	5,944.5 (20.620)	1,026.4 (3.560)	881.1 (3.056)	6,825.6 (23.677)	1,907.5 (6.617)	28,199.3 (97.819)
2025	5,031.2 (16.695)	6,031.8 (20.015)	1,000.6 (3.320)	953.6 (3.164)	6,985.4 (23.180)	1,954.3 (6.485)	30,191.8 (100.185)
2026	5,115.7 (16.323)	6,237.5 (19.902)	1,121.7 (3.579)	1,023.9 (3.267)	7,261.3 (23.169)	2,145.6 (6.846)	32,404.0 (103.391)
2027	5,341.9 (16.417)	6,498.9 (19.973)	1,157.0 (3.556)	1,108.0 (3.405)	7,606.9 (23.379)	2,265.0 (6.961)	34,735.6 (106.754)
2028	5,522.1 (16.355)	6,689.4 (19.812)	1,167.3 (3.457)	1,219.1 (3.611)	7,908.5 (23.422)	2,386.4 (7.068)	37,175.7 (110.103)
2029	5,734.2 (16.361)	7,045.6 (20.103)	1,311.4 (3.742)	1,323.3 (3.776)	8,368.9 (23.879)	2,634.7 (7.518)	39,852.1 (113.710)
2030	6,025.4 (16.556)	7,308.4 (20.081)	1,283.0 (3.525)	1,424.7 (3.915)	8,733.1 (23.996)	2,707.6 (7.440)	42,587.1 (117.018)
2031	6,302.9 (16.678)	7,594.6 (20.096)	1,291.7 (3.418)	1,535.0 (4.062)	9,129.6 (24.157)	2,826.7 (7.480)	45,425.8 (120.199)
2032	6,561.9 (16.717)	7,905.6 (20.140)	1,343.7 (3.423)	1,653.6 (4.213)	9,559.2 (24.353)	2,997.3 (7.636)	48,431.9 (123.386)
2033	6,806.0 (16.694)	8,221.5 (20.167)	1,415.5 (3.472)	1,768.0 (4.337)	9,989.5 (24.503)	3,183.5 (7.809)	51,591.4 (126.549)
2034	7,073.1 (16.709)	8,538.9 (20.172)	1,465.8 (3.463)	1,883.1 (4.449)	10,422.0 (24.621)	3,348.9 (7.911)	54,913.5 (129.726)
2035	7,372.1 (16.779)	8,930.1 (20.325)	1,558.0 (3.546)	1,999.5 (4.551)	10,929.7 (24.876)	3,557.5 (8.097)	58,439.9 (133.010)
2036	7,679.7 (16.845)	9,299.7 (20.399)	1,620.0 (3.553)	2,111.8 (4.632)	11,411.4 (25.031)	3,731.8 (8.186)	62,153.7 (136.333)
2037	8,005.6 (16.928)	9,675.8 (20.459)	1,670.2 (3.532)	2,241.0 (4.739)	11,916.8 (25.198)	3,911.2 (8.270)	66,049.2 (139.661)
2038	8,331.7 (16.986)	10,077.1 (20.544)	1,745.4 (3.558)	2,372.6 (4.837)	12,449.7 (25.381)	4,118.0 (8.395)	70,159.9 (143.033)
2039	8,673.5 (17.053)	10,477.7 (20.600)	1,804.1 (3.547)	2,511.0 (4.937)	12,988.6 (25.536)	4,315.1 (8.484)	74,475.0 (146.422)
2040	9,022.9 (17.111)	10,866.5 (20.608)	1,843.6 (3.496)	2,654.1 (5.033)	13,520.6 (25.641)	4,497.7 (8.530)	78,972.2 (149.766)
2041	9,386.2 (17.176)	11,279.2 (20.640)	1,893.1 (3.464)	2,808.6 (5.139)	14,087.8 (25.779)	4,701.6 (8.603)	83,673.8 (153.113)
2042	9,748.1 (17.217)	11,735.4 (20.727)	1,987.3 (3.510)	2,977.2 (5.258)	14,712.6 (25.985)	4,964.5 (8.768)	88,638.4 (156.552)

2043	10,131.8 (17.276)	12,176.2 (20.762)	2,044.4 (3.486)	3,159.3 (5.387)	15,335.5 (26.149)	5,203.8 (8.873)	93,842.1 (160.010)
2044	10,515.0 (17.312)	12,638.8 (20.809)	2,123.9 (3.497)	3,350.4 (5.516)	15,989.2 (26.325)	5,474.2 (9.013)	99,316.0 (163.519)
2045	10,911.4 (17.350)	13,110.6 (20.847)	2,199.2 (3.497)	3,548.5 (5.642)	16,659.1 (26.489)	5,747.7 (9.139)	105,063.4 (167.059)
2046	11,323.8 (17.392)	13,602.2 (20.892)	2,278.4 (3.499)	3,758.3 (5.772)	17,360.5 (26.664)	6,036.8 (9.272)	111,100.0 (170.639)
2047	11,748.2 (17.432)	14,114.1 (20.942)	2,365.9 (3.510)	3,981.5 (5.908)	18,095.6 (26.850)	6,347.4 (9.418)	117,447.4 (174.266)
2048	12,190.9 (17.478)	14,639.3 (20.988)	2,448.4 (3.510)	4,218.0 (6.047)	18,857.4 (27.035)	6,666.5 (9.557)	124,114.1 (177.937)
2049	12,633.4 (17.502)	15,177.9 (21.028)	2,544.5 (3.525)	4,467.6 (6.190)	19,645.5 (27.217)	7,012.1 (9.715)	131,125.8 (181.663)
2050	13,093.3 (17.533)	15,718.0 (21.047)	2,624.8 (3.515)	4,729.0 (6.332)	20,447.0 (27.380)	7,353.8 (9.847)	138,480.3 (185.434)
2051	13,577.7 (17.576)	16,310.8 (21.114)	2,733.2 (3.538)	5,005.4 (6.479)	21,316.2 (27.593)	7,738.5 (10.017)	146,218.7 (189.275)
2052	14,079.6 (17.620)	16,935.4 (21.194)	2,855.8 (3.574)	5,302.5 (6.636)	22,237.9 (27.830)	8,158.3 (10.210)	154,376.7 (193.195)
2053	14,596.1 (17.660)	17,524.7 (21.204)	2,928.5 (3.543)	5,613.1 (6.791)	23,137.7 (27.995)	8,541.6 (10.335)	162,918.5 (197.120)
2054	15,135.7 (17.706)	18,187.0 (21.276)	3,051.3 (3.570)	5,935.3 (6.943)	24,122.3 (28.219)	8,986.6 (10.513)	171,906.4 (201.102)