THE NATION’S FISCAL HEALTH

Road Map Needed to Address Projected Unsustainable Debt Levels

Annual Report to Congress
MAY 2023

Accessible Version
The federal government faces an unsustainable long-term fiscal future. At the end of fiscal year 2022, debt held by the public was about 97 percent of gross domestic product (GDP). Projections from the Office of Management and Budget and the Department of the Treasury, the Congressional Budget Office, and GAO all show that current fiscal policy is unsustainable over the long term. Debt held by the public is projected to grow at a faster pace than the size of the economy. Debt held by the public is projected to reach its historical high of 106 percent of GDP within 10 years and to continue to grow at an increasing pace. GAO projects that this ratio could reach more than twice the size of the economy by 2051, absent any changes in revenue and spending policies.

Debt Held by the Public Projected to Grow Faster Than GDP

![Graph showing percentage of GDP for debt held by the public over time with labels for World War I, Great Depression, World War II, 2007-2009 Financial Crisis, and COVID-19.](source: Congressional Budget Office data and GAO simulation)

The Federal Budget Deficit in Fiscal Year 2022 Was among the Largest in History

When the government spends more than it collects in revenue, Treasury borrows money to finance the resulting deficit. The federal budget deficit in fiscal year 2022 was $1.4 trillion, a 50 percent decline from fiscal year 2021, but still the fourth largest in U.S. history. This decline is attributable to higher tax revenue and lower pandemic-related federal spending. In fiscal year 2022, federal debt held by the public grew by about $2 trillion, reaching $24.2 trillion.

Increasingly Large Deficits Drive Unsustainable Debt Levels

The growing debt is a consequence of borrowing to finance increasingly large annual budget deficits. GAO projects that:

- spending for Social Security, federal health care programs, and all other federal program spending increases more than revenue, resulting in the primary deficit; and

- net interest spending, which primarily represents the federal government’s cost to service its debt, steadily increases over the next 30 years, further widening the total budget deficits.
Net interest spending will continue to increase because of both higher levels of overall debt, and projected increases in interest rates over the long-term. Higher than projected interest rates would further increase interest costs and debt. In addition to increased borrowing costs, rising debt could lead to slower economic growth.

Other potential fiscal risks stem from delays in raising or suspending the debt limit—the legal limit on the total amount of money that the federal government is authorized to borrow to meet its existing legal obligations. These delays could create disruptions to financial markets, and investors may require higher interest rates to hedge against increased risks, which, in turn, could increase borrowing costs. Failure to raise the debt limit in time to prevent a default would have much more dire economic and reputational consequences.

**Action Is Needed to Change the Unsustainable Fiscal Path**

GAO has previously suggested that Congress develop a plan to address the government’s fiscal outlook and promote fiscal sustainability. GAO’s work has identified several components of an effective fiscal plan:

- **Incorporate well-designed fiscal rules and targets** to help manage debt, for example by controlling factors such as spending and revenue to meet a debt-to-GDP target.

- **Assess the drivers of the primary deficit**, such as mandatory and discretionary spending as well as revenue—including tax expenditures, such as deductions and tax credits.

- **Consider alternative approaches to the debt limit to avoid** disrupting the Treasury market and increasing borrowing costs and to improve federal debt management. For example, the debt limit could be set as part of the budget resolution or Treasury could be given the authority to propose a change in the debt limit that would take effect absent congressional disapproval.
Table of Contents

Background .............................................................................................................................................. 4

The Federal Budget Deficit in Fiscal Year 2022
Was Among the Highest Ever ................................................................................................................ 7

Increasingly Large Budget Deficits Drive
Unsustainable Long-Term Debt Levels ................................................................................................... 10

Rising Interest Costs Are a Risk to the
Fiscal Outlook ........................................................................................................................................... 17

Debt Limit Impasses and Fiscal Exposures
Pose Risks to the Fiscal Outlook ........................................................................................................... 24

Action Is Needed to Change the
Unsustainable Fiscal Path ....................................................................................................................... 29

Appendix I: Objectives, Scope, and Methodology .......................................................... 41

Appendix II: Methodology and Design:
GAO’s 75-year Fiscal Simulation ........................................................................................................... 42

Appendix III: GAO Contacts and
Staff Acknowledgments ......................................................................................................................... 46

Appendix IV: Additional Information .................................................................................................... 48
May 8, 2023

The President
The President of the Senate
The Speaker of the House of Representatives

The federal government faces an unsustainable long-term fiscal future. Long-term projections from the Office of Management and Budget (OMB) and the Department of the Treasury, the Congressional Budget Office (CBO), and GAO all show that the balance of current revenue and program spending policies result in debt growing faster than the economy. This is unsustainable over the long term.

The fiscal year 2022 federal deficit was among the highest in American history. This occurred even though revenue growth has been strong and federal COVID-19 relief spending has declined from recent years. In addition, the cost of financing the debt increased from prior years because interest rates rose substantially in fiscal year 2022.

Rising debt, relative to economic growth, could increase borrowing costs for both the federal government and private borrowers and could slow economic growth. CBO has stated that high and rising federal debt as a share of the economy increases the risk of a fiscal crisis. The underlying conditions driving the unsustainable fiscal outlook pose serious economic, security, and social challenges if not addressed.

Congress should develop a plan to place the government on a sustainable long-term fiscal path. Congress and the administration will need to make difficult budgetary and policy decisions to address the key drivers of the debt and change the government’s fiscal path.

---


We produce this annual fiscal health report to examine the current fiscal condition of the federal government and its future fiscal path, absent policy changes in revenue and program spending. This report updates our May 2022 report and discusses:

- the federal government's fiscal condition and changes from fiscal years 2019 to 2022;
- outcomes from our 75-year simulation of the federal government's fiscal outlook;
- implications of rising interest costs and rates;
- additional risks to the federal government's fiscal outlook; and
- components of a sustainable long-term fiscal plan and actions that Congress and federal agencies could take now to yield financial benefits.

Our analysis draws from several government sources and our reports.

- To describe the federal government's current fiscal condition, we summarized and analyzed federal budget and economic data reported by CBO, the Internal Revenue Service (IRS), and Treasury.
- To examine the federal government's fiscal outlook, we developed our own long-term simulation based on:
  - 10- and 30-year economic and fiscal projections developed by CBO; and
  - 75-year economic and fiscal projections developed by the Board of Trustees for Social Security and Medicare.
- We also reviewed the 75-year fiscal projections developed by OMB and Treasury (OMB-Treasury) and reported in the "Fiscal Year 2022 Financial Report of the U.S. Government".

The fiscal condition is a broad concept using both budget and financial information. Fiscal policy refers to decisions on taxes and spending that affect the level, composition, and distribution of the government's revenue and spending.

Source: GAO.
Projections are not predictions or forecasts of the future, but rather scenarios based on specific assumptions. In our simulation, we use these sources to project ratios of the deficit and debt to GDP over a 75-year horizon. These results are driven by underlying assumptions about real (inflation-adjusted) rates of change related to spending and revenue. For more information on this report’s methodology and sources, see appendix I. For more information on our long-term simulation, see appendix II.

Throughout this report, we measured spending, revenue, and debt as a percentage of gross domestic product (GDP). Analyzing these measures as a share of GDP appropriately relates them to the size of the economy supporting these activities and accounts for changes in the labor force, prices, and a variety of other factors that might change over time. Also, debt—and projections of future debt—are best understood as a share of the economy supporting that debt.

**Gross Domestic Product (GDP)** is the value of all goods and services produced within the borders of a country in a given period. It is generally used as a measure of the size of a country’s economy.

Source: Bureau for Economic Analysis. | GAO-23-106201
Background

For most of the nation’s history, the government’s debt held by the public as a share of GDP has increased during wartime and recessions but decreased during peacetime and economic expansions. This pattern is visible in figure 1. For example, publicly held debt as a share of GDP rose significantly during World War II but decreased rapidly in the post-war years.

**Figure 1: Federal Debt Held by the Public as a Share of Gross Domestic Product, 1900 to 2022**

Percentage of gross domestic product

More recently, this pattern has changed. Debt held by the public as a share of GDP grew during three of the four most recent economic expansions. A recession begins when the economy reaches a peak of activity and ends when the economy reaches its trough. Between trough and peak, the economy is in an expansion. Based on our analysis, debt held by the public as a share of GDP grew during economic expansions from November 1982 to July 1990, November 2001 to December 2007, and June 2009 to February 2020. It did not grow during the economic expansion from March 1991 to March 2001.
Federal debt can both promote and slow economic growth. For example:

- Borrowing, in lieu of higher taxes or lower government spending, may be viewed as appropriate during economic recessions, wars, public health crises, and other temporary challenges or national needs.9
- Debt may also be a cost-effective means of financing federal investment that promotes future economic growth. Public infrastructure, such as transportation systems and water supplies, is vital to supporting public safety, health, and quality of life, both today and in the long term.
- High levels of debt can lead to lower private investment and capital accumulation, slowing economic growth. Over time, slower GDP growth may reduce the living standards of future generations.

To Finance Deficits, Treasury Issues Debt Securities

When the government spends more than it collects in revenues, Treasury borrows the money to finance these annual deficits by issuing debt securities—such as Treasury bills, notes, and bonds—to the public. These securities comprise debt held by the public.10 Figure 2 shows how the sale of Treasury securities to finance deficits contributes to the national debt.

Figure 2: Relationship between the Federal Budget, Treasury Securities, and Debt Held by the Public

9 Federal borrowing may be higher during a recession because tax revenue declines and federal benefit payments for programs such as unemployment insurance automatically increase. See GAO-04-485SP.
10 Other factors that affect borrowing—collectively, other means of financing—are not reflected in the budget totals. Those factors include changes in the government’s cash balances and the cash flows of federal programs that provide loans and loan guarantees.
Treasury issues a wide range of short- and long-term securities to appeal to a diverse group of investors and in sufficient amounts to promote liquid markets so investors can easily buy and sell Treasury securities. Demand for Treasury securities by different types of investors fluctuates over time, reflecting changes in the investment needs of particular sectors.11

Investors find federal debt—Treasury securities—an attractive investment because it has been considered to be essentially free of default risk. The Treasury securities market is considered the largest and most liquid market in the world (i.e., Treasury securities can be bought and sold quickly and in large quantities). A strong demand for Treasury securities facilitates the government’s ability to finance borrowing needs at the lowest costs over time.

---

11 Types of investors include domestic investors, international investors, and the Federal Reserve System. For more information on demand for Treasury securities across different types of investors, see GAO-20-131.
The Federal Budget Deficit in Fiscal Year 2022 Was Among the Highest Ever

The Fiscal Year 2022 Deficit Was the Fourth-Largest Ever

At almost $1.4 trillion, the fiscal year 2022 federal budget deficit was the fourth-largest recorded nominal federal deficit in history, behind the budget deficits in fiscal years 2021 and 2020 (see fig. 3), as well as 2009. The fiscal year 2022 deficit was 6 percent of GDP. That was less than the prior 2 fiscal years however, when the deficit equaled 15 percent and 12 percent of GDP, respectively.\(^\text{12}\)

Changes in the deficit are the result of changes in government spending and revenues. In fiscal year 2022, revenue grew and pandemic-related spending phased down, but higher interest rates increased the total amount of net interest spending, which is primarily the cost to service the debt.\(^\text{13}\) Federal net interest spending increased from $352 billion in fiscal year 2021 to $475 billion in fiscal year 2022, a 35 percent increase.\(^\text{14}\)

---

\(^{12}\) A more complete picture of the government’s fiscal condition emerges from looking at the Budget and the Financial Report of the U.S. Government together. See the Fiscal Year 2022 Financial Report of the U.S. Government and GAO-23-105837. In addition to information on the federal budget deficit and debt held by the public, the Financial Report provides information about the government’s financial condition. This includes costs incurred that will be paid for in the future, such as federal employee pension and retiree healthcare benefits and veterans’ benefits, which are reflected in the federal budget when paid instead of when incurred.

\(^{13}\) Examples of pandemic-related spending that stopped or slowed include (1) unemployment compensation; (2) the Small Business Administration’s Paycheck Protection Program; (3) direct COVID-19 relief to state, local, tribal, and territorial governments; and (4) certain refundable tax credits.

\(^{14}\) Net interest primarily encompasses the cost to the government of financing debt held by the public, net of certain income recognized from loans and other sources.
Figure 3: Budget Deficit for Fiscal Years 2019 to 2022

Dollars (in billions)

Source: GAO analysis of monthly U.S. Department of the Treasury statements.

For purposes of this report, the federal budget refers to the government’s primary financial planning and control tool. It accounts for revenue (funds received by the U.S. government from taxes and other revenue sources such as user fees) and spending (largely payments made by the U.S. government to the public or entities outside of the government). Spending includes net interest spending, which is primarily the cost to service the federal debt. Unlike most other costs in the budget, interest costs are recorded as spending when they accrue, not when they are paid. Federal budget data are available each month via the Monthly Treasury Statement.

Source: Department of the Treasury, the 2022 Financial Report, and GAO.
Debt-to-GDP Ratio Decreased in Fiscal Year 2022 but Remained High

At the end of fiscal year 2022, the ratio of publicly held debt to GDP was 97 percent, a decline compared to 2021, when the debt-to-GDP ratio was about 98 percent. The ratio declined because the amount of debt held by the public grew slower than nominal GDP.

At the end of fiscal year 2022 (September 30, 2022), total federal debt was $30.9 trillion, which was composed of the following:

- **Debt held by the public.** The public held $24.2 trillion in debt—almost $2 trillion (9 percent) higher than at the end of fiscal year 2021, and 44 percent higher than at the end of fiscal year 2019.

- **Intragovernmental debt.** Federal agencies held $6.7 trillion in debt, almost $500 billion (8 percent) higher than at the end of fiscal year 2021. Intragovernmental debt represents balances of Treasury securities held by federal government accounts—for example, trust funds for Social Security, Medicare, and civilian and military pensions. These trust funds are typically obligated to invest excess revenue in federal securities.

---

15 CBO previously reported that the publicly held debt to GDP ratio for fiscal year 2021 was about 100 percent. In February 2023, CBO revised the fiscal year 2021 estimate to 98.4 percent.

16 Real (inflation-adjusted) GDP grew at a 2 percent annual rate in fiscal year 2022, whereas the debt grew by 1.8 percent during the same time. We calculated the GDP growth rate from Bureau of Economic Analysis real GDP data, averaging four quarters of fiscal year 2022.

17 As of March 31, 2023, total federal debt has increased to $31.3 trillion, with debt held by the public totaling $24.6 trillion and intragovernmental debt totaling $6.8 trillion.
Increasingly Large Budget Deficits Drive Unsustainable Long-Term Debt Levels

Independent analyses by OMB-Treasury, CBO, and GAO all emphasize that current fiscal policy is unsustainable over the long term. Projections by OMB-Treasury, CBO, and GAO show that debt held by the public would reach its historical high of 106 percent of GDP by 2029 and continue to grow at an increasing pace (see fig. 4). Our simulation shows debt held by the public growing to more than 219 percent of GDP—more than twice the size of the economy—by 2051.

Figure 4: Debt Held by the Public as a Share of Gross Domestic Product under Various Policy Simulations

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Percentage of gross domestic product</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
</tr>
<tr>
<td>2020</td>
<td>0</td>
</tr>
<tr>
<td>2025</td>
<td>0</td>
</tr>
<tr>
<td>2030</td>
<td>0</td>
</tr>
<tr>
<td>2035</td>
<td>0</td>
</tr>
<tr>
<td>2040</td>
<td>0</td>
</tr>
<tr>
<td>2045</td>
<td>0</td>
</tr>
<tr>
<td>2051</td>
<td>250%</td>
</tr>
</tbody>
</table>

Note: Each of these projections uses different budgetary and economic assumptions to generate the debt-to-GDP ratio in each year. Our simulation incorporates many of CBO's assumptions, with some adjustments to the discretionary spending and mandatory spending assumptions, which explain the divergence in later years. The OMB-Treasury model assumes higher program spending than CBO and GAO and higher interest rate assumptions in the first 20 projection years. These varying assumptions help explain the different outcomes.


19 Our 75-year simulation starts with fiscal year 2022 through the end of fiscal year 2096. We highlight the fiscal outlook for the next 30 years (through 2051) to underscore the urgency of changing the outlook. Long-term projections are not predictions or forecasts of the future, but rather scenarios based on assumptions (see appendix II for more details on our simulation's methodology, including a table of key projections).
In our simulation, in most years, debt held by the public grows more than twice as fast as the economy, in real (inflation-adjusted) terms.\textsuperscript{20} Table 1 summarizes these trends over the next three decades.

\textbf{Table 1: Projected Compound Annual Growth Rates of Real Debt Held by the Public and Real Gross Domestic Product, 2022-2052}

<table>
<thead>
<tr>
<th></th>
<th>2022-2032</th>
<th>2032-2042</th>
<th>2042-2052</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross domestic product (GDP) annual growth</td>
<td>1.99%</td>
<td>1.83%</td>
<td>1.89%</td>
</tr>
<tr>
<td>Debt held by the public annual growth</td>
<td>4.12%</td>
<td>4.91%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Source: GAO simulation.  |  GAO-23-106201

Notes: These are compound annual growth rates calculated using real (inflation-adjusted) values of our simulation. Our simulation uses the Congressional Budget Office’s GDP projections for years 2022 to 2032. Starting in 2033, we use the growth rate underlying the Social Security Trustees’ intermediate scenario projections.

The growing debt held by the public is a consequence of borrowing to finance increasingly large annual budget deficits, which consists of

- the primary deficit: the gap between program spending and revenue, and
- net interest spending: primarily the cost to service the debt.

The primary deficit is a key determinant of growth in the debt-to-GDP ratio and therefore fiscal sustainability. It is also the driver of the debt-to-GDP ratio over which policymakers have the most control—program spending and revenue reflect policy decisions, whereas net interest spending reflects the consequences of those prior policy decisions.\textsuperscript{21}

A primary deficit has been a persistent feature of the federal government’s financial condition over the last 20 years (see fig. 5). According to CBO and GAO projections, the gap between program spending and revenue increases over the long term, generating larger primary deficits each year. These increasing deficits require more borrowing and result in growing net interest spending.

Our simulation shows that by 2051 the primary deficit would be 6.1 percent of GDP, compared to 2.9 percent in 2019 (before the COVID-19 pandemic). Likewise, our simulation shows that the total budget deficit—including net interest spending—would reach 14.5 percent of GDP in 2051, up from 4.6 percent in 2019.

\textsuperscript{20} For this comparison, we examined annual real growth in publicly held debt relative to annual growth in real GDP.

\textsuperscript{21} Economic growth, as measured by GDP, is also a key determinant in the debt-to-GDP ratio, as are interest rates, which are determined by market forces and the Federal Reserve’s monetary policy.
Gap between Revenue and Program Spending Grows by Increasing Amounts

Program Spending

OMB-Treasury, CBO, and GAO all have reported primary deficits will grow in large part because of the projected increases in Medicare, other federal health care, and Social Security program spending compared to relatively lower projected increases in revenue (see fig. 6). In our simulation, annual program spending as a share of GDP between 2022 and 2051 is projected to average 21.8 percent of GDP annually, which is higher than average program spending over the past 50 years (18.9 percent).

Key Components of Program Spending

Major federal health care spending includes Medicare, the federal share of Medicaid, the Children’s Health Insurance Program, and insurance premium and cost sharing subsidies for insurance purchased through the health insurance exchanges. In our simulation, about two-thirds of annual health care spending is for Medicare during fiscal years 2022-2096.

Social Security spending includes the cost of Social Security benefits for the Old-Age and Survivors Insurance and the Disability Insurance Programs.

Other program spending includes other mandatory spending, which includes unemployment compensation and the Supplemental Nutrition Assistance Program, among other areas, and discretionary spending, which includes spending related to national defense, homeland security, and transportation, among other areas. Mandatory and discretionary spending are discussed later in this report.

Note: Starting in 2033 our simulation phases total revenue to a constant at the 50-year historical average as of 2022.

Figure 6: Composition of Program Spending and Revenue as a Share of Gross Domestic Product

<table>
<thead>
<tr>
<th>Percentage of gross domestic product</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTUAL</td>
</tr>
<tr>
<td>35%</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office data and GAO simulation.

Notes: Starting in 2033 our simulation phases total revenue to a constant at the 50-year historical average as of 2022. Our simulation assumes that spending for Social Security and Medicare continues as scheduled even after their trust funds are exhausted.

Other program spending includes other mandatory and discretionary spending.

In fiscal year 2019, spending on major federal health care programs represented 5.3 percent of GDP. Social Security spending was 4.9 percent of GDP. Our simulation shows that together projected spending on federal health care programs and Social Security will reach 14.4 percent of GDP by 2051.23

Federal health care and Social Security spending are rising because the population is aging and health care is getting more expensive. Changes to the labor force, which in turn affect the amount of revenue collected, significantly affect the ability to pay for such benefits.

Medicare and Social Security

Almost all Americans have a stake in the financial condition of the Medicare and Social Security programs. At the end of 2021, approximately 179 million people contributed to the programs through employment or payroll taxes, more than 63 million people were covered by Medicare and about 65 million people received Social Security benefit payments.

Source: The Medicare and Social Security Trustees.

These projections reflect our assumption that Medicare and Social Security will continue to pay benefits as scheduled under current law, regardless of the status of the programs’ trust funds. That approach is consistent with that of CBO, OMB-Treasury, and the Board of Trustees. We examine the trust funds’ financial condition later in this report.
Aging Population  
As the U.S. population ages, more individuals begin receiving Medicare and Social Security benefits.24 Spending on federal health care programs—largely Medicare—and Social Security increased markedly after 2008, when the earliest members of the baby boom generation became eligible for retirement benefits.25 In our simulation, Social Security spending as a share of GDP rises from 5.1 to 6.0 percent from 2023 to 2033. From 2034 to 2096, this percentage is projected to rise modestly to 6.4 percent before decreasing to 6.2 percent.

The share of the U.S. population age 65 and older rose from around 13 percent of the population in 2008 to around 17 percent in 2022. That share is expected to continue to climb, reaching 20 percent by 2030 (see fig. 7). The rapid increase in the share of the population age 65 and older during this period is primarily due to members of the baby boom generation turning age 65. After 2029, the projected share of the population age 65 and older continues to rise, but at a more moderate pace, due to assumed continued longevity increases and low fertility rates.26

Figure 7: Older Americans Are a Greater Share of the Total Population

Health Care Costs  
OMB-Treasury, CBO, and GAO all have reported that increasing health care costs are driving projected growth in spending.27 Projected federal spending on major health care programs grows faster than GDP (see fig. 8).

---


25 The baby boom generation is generally described as those born between 1946 and 1964, thus reaching age 65 during the period 2011 to 2029.

26 Under the intermediate assumptions of the Board of Trustees for Social Security, the projected death rates for the population age 65 and over decline at an average annual rate of 0.79 percent between 2022 and 2097. In addition, the Trustees assume that the average annual total fertility rate from 2033 and 2097 is 1.99 children per woman. A rate of about 2.1 is needed for a nearly constant population if net immigration is zero and death rates remain constant.

Figure 8: Federal Spending on Major Health Care Programs Grows Faster than Gross Domestic Product

Percentage of cumulative real growth since 2007

-50  0  50  100  150  200  250  300  350  400%

2007  2010  2015  2020  2025  2030  2035  2040  2045  2051

Fiscal year

Cumulative growth in major federal health programs
Cumulative growth in gross domestic product

Source: GAO analysis of Congressional Budget Office and Bureau of Economic Analysis data. | GAO-23-106201

Note: Major federal health programs include Medicare, Medicaid, Children's Health Insurance Program, and insurance premium and cost-sharing subsidies for health care insurance purchased through the health insurance exchanges.

Revenue

Over the next 30 years, average annual revenue is not projected to keep pace with projected increases in spending. In our simulation, annual revenue as a share of GDP between 2022 and 2051 is projected to average 17.5 percent of GDP annually. This is consistent with average revenue over the past 50 years (17.4 percent) (see fig. 9).

Figure 9: Federal Revenue as a Share of Gross Domestic Product, Fiscal Years 2000 to 2051

Revenue as a percentage of gross domestic product (GDP)

0  5  10  15  20%


Fiscal year

50-year historical average 17.4% of GDP

Source: Congressional Budget Office data and GAO simulation. | GAO-23-106201

Note: Starting in 2033 our simulation phases total revenue to a constant at the 50-year historical average as of 2022.

Tax receipts—the primary source of government revenue—heavily influence trends in the primary deficit and are affected by tax policy and labor force trends, among other factors.
• **Tax policy.** Individual income taxes and payroll taxes are the two largest federal revenue sources. CBO projects that revenues will decline over the next 2 years (fiscal years 2024 and 2025) before increasing after 2025, when certain tax provisions expire.\(^{28}\)

• **Labor force trends.**\(^{29}\) The trend of lower labor force growth is expected to continue due to the expected effects of lower fertility rates, and in the shorter term, the retirement of most of the remaining baby boomers (see fig. 10). When individuals leave the workforce, in general, they are no longer earning income and therefore they do not owe payroll taxes and may owe less in income taxes than when they were working.

**Figure 10: Actual and Projected Labor Force Growth**

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>Percentage of labor force growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>4%</td>
</tr>
<tr>
<td>1980</td>
<td>3%</td>
</tr>
<tr>
<td>1990</td>
<td>2%</td>
</tr>
<tr>
<td>2000</td>
<td>1%</td>
</tr>
<tr>
<td>2010</td>
<td>0%</td>
</tr>
<tr>
<td>2020</td>
<td>0%</td>
</tr>
<tr>
<td>2030</td>
<td>0%</td>
</tr>
<tr>
<td>2040</td>
<td>0%</td>
</tr>
<tr>
<td>2050</td>
<td>0%</td>
</tr>
<tr>
<td>2060</td>
<td>0%</td>
</tr>
<tr>
<td>2070</td>
<td>0%</td>
</tr>
<tr>
<td>2080</td>
<td>0%</td>
</tr>
<tr>
<td>2090</td>
<td>0%</td>
</tr>
<tr>
<td>2095</td>
<td>0%</td>
</tr>
</tbody>
</table>


Note: The sharp drop and steep increase in labor force growth in 2020 through 2022 reflect the effects of the pandemic-induced recession and the recovery that followed.

---


\(^{29}\) Labor force trends are driven by the size and age profile of the U.S. population. Projections of the U.S. population include rates of fertility, net immigration, and mortality. According to CBO, as fertility remains lower than necessary for a generation to replace itself, population growth is increasingly driven by immigration, which by 2043 will account for all population growth. See CBO, *The 2022 Long-Term Budget Outlook* (July 2022).
Rising Interest Costs Are a Risk to the Fiscal Outlook

Higher Debt Levels Increase Net Interest Spending in the Long-Term

In recent years, the federal government’s net interest spending has represented a relatively small share of GDP and total federal spending, primarily because interest rates have been relatively low. However, interest rates are projected to rise in the long term, and federal net interest spending is projected to increase. In our simulation, net interest spending would increase steadily over the next 30 years as a share of GDP, total federal spending, and revenue.

Average net interest spending was 1.5 percent as a share of GDP over the last 20 years. In our simulation, net interest spending grows from 1.9 percent of GDP in 2022 to 8.4 percent of GDP in 2051, and reaches 24.6 percent of GDP in 2096 (see fig. 11). Net interest spending was $475 billion in 2022 and is projected to exceed $1 trillion in 2029. In 2051, net interest spending is projected to reach $6.6 trillion.

Net interest spending largely reflects the interest paid to holders of the debt that Treasury issues to the public. The ratio of net interest spending to GDP is one of the indicators of the capacity of the country’s economy to meet government debt service requirements.

Source: Congressional Budget Office and GAO. | GAO-23-106201
Figure 11: Net Interest Spending Increases the Budget Deficit

Percentage of gross domestic product

50%

Actual  Projected

Source: Congressional Budget Office data and GAO simulation.

Note: Our simulation incorporates the Congressional Budget Office's (CBO) long-term nominal interest rate projection for the first 30 years. We then hold that rate constant through the end of our 75-year simulation period. As of July 2022, CBO's year 30 interest rate is 4.2 percent.

In our simulation, net interest spending as a share of total spending also increases in the long-term (see fig. 12).

Figure 12: Federal Net Interest Spending as a Share of Total Spending
In our simulation, net interest spending also increases in relation to the size of federal government revenue. In our simulation, net interest spending grows from about 9.7 percent of revenue in 2022 to 48.4 percent of revenue in 2051 and reaches 141.4 percent of revenue in 2096 (see fig. 13).

**Figure 13: Federal Net Interest Spending as a Share of Revenue**

Percentage of revenue

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Net interest spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>0%</td>
</tr>
<tr>
<td>2026</td>
<td>5%</td>
</tr>
<tr>
<td>2030</td>
<td>10%</td>
</tr>
<tr>
<td>2034</td>
<td>15%</td>
</tr>
<tr>
<td>2038</td>
<td>20%</td>
</tr>
<tr>
<td>2042</td>
<td>25%</td>
</tr>
<tr>
<td>2046</td>
<td>30%</td>
</tr>
<tr>
<td>2050</td>
<td>35%</td>
</tr>
<tr>
<td>2054</td>
<td>40%</td>
</tr>
<tr>
<td>2058</td>
<td>45%</td>
</tr>
<tr>
<td>2062</td>
<td>50%</td>
</tr>
<tr>
<td>2066</td>
<td>55%</td>
</tr>
<tr>
<td>2070</td>
<td>60%</td>
</tr>
<tr>
<td>2074</td>
<td>65%</td>
</tr>
<tr>
<td>2078</td>
<td>70%</td>
</tr>
<tr>
<td>2082</td>
<td>75%</td>
</tr>
<tr>
<td>2086</td>
<td>80%</td>
</tr>
<tr>
<td>2090</td>
<td>85%</td>
</tr>
<tr>
<td>2094</td>
<td>90%</td>
</tr>
<tr>
<td>2096</td>
<td>100% (reaches 150% in 2096)</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office data and GAO simulation. | GAO-23-106201

In our simulation, increases in net interest spending reflect the combined effect of interactions among various factors:

- **Accumulated debt.** The amount of debt that the federal government has already incurred and the interest that will need to be paid on that debt.
- **Future deficits.** Projected increasingly large future primary deficits that would require more borrowing for government operations, adding to the government’s debt.
- **Projected average interest rate.** Interest rates are projected to increase, which would affect the cost of newly issued debt and refinancing of existing debt.  

**Recent Interest Rate Increases Demonstrate Effects on Net Interest Spending**

Interest rates were relatively low in recent decades but they increased in fiscal year 2022 and are expected to continue to rise in 2023. The government’s net interest spending is sensitive to changes in interest rates and depends on the maturities of the Treasury securities issued. Because debt is already high, moderate increases in interest rates can lead to significantly higher net interest spending.

---

30 For more information, see CBO, *Federal Net Interest Costs: A Primer* (December 2020), and GAO-20-131.

31 When Treasury securities mature, Treasury may need to issue new debt to raise cash to pay investors the principal for the maturing security. This process is called rolling over, or refinancing the debt, as the newly issued security will be subject to the prevailing interest rate at that time, which may be higher than for the maturing security.
Relationship between rising inflation and net interest spending

To address rising inflation, the Federal Reserve raised interest rates nine times between March 2022 and March 2023, bringing the target range for the federal funds rate from close to zero to between 4.75 and 5 percent. As of March 2023, prices had risen 5 percent over the previous 12 months, according to the Bureau of Labor Statistics’ Consumer Price Index for all Urban Consumers. In June 2022, the 12-month change in inflation peaked at 9.1 percent, the highest in 40 years. The drivers of rising inflation included: global supply chain and labor market disruptions because of the COVID-19 pandemic, shifts in consumer demand, and supply shocks to energy and food markets following the Russian invasion of Ukraine.

In the short-term, higher than expected inflation reduces the real value of government debt and the real returns on government securities that are not indexed for inflation. In general, if inflation and realized interest rates continue at high rates, Congressional Budget Office (CBO) analysis shows that projected budget deficits and debt would be larger in nominal dollar terms in the next 10 years. However, despite the greater amount of debt, federal debt as a percent of GDP would be smaller by 2031, because debt would increase at a slower pace than nominal GDP. Average interest rates on federal debt held by the public and net interest spending would be higher, as the Department of the Treasury replaced maturing securities and issued more debt to finance new deficits at higher interest rates. While the rate of inflation is expected to fall over time, the short-term inflation outlook remains uncertain.

Source: U.S. Bureau of Labor Statistics, the International Monetary Fund, and the Congressional Budget Office. | GAO-23-106201

Higher interest rates have a greater effect on net interest spending when accumulated debt is relatively high. With all other variables held constant, higher interest rates increase net interest spending, which in turn increases with the amount of debt the federal government has already incurred. The debt-to-GDP ratio is much higher now than it was at other times in the past when interest rates were high. For example, in 1982, when the average interest rate on debt held by the public peaked at 10.8 percent, the debt-to-GDP ratio was 27.9 percent, far lower than the ratio in fiscal year 2022 (see fig. 14).

Different interest rates

Rates on Treasury securities are the interest rates paid to investors who hold Treasury securities. Generally, Treasury must pay a higher interest rate for longer-term securities to compensate buyers for accepting increased risk due to uncertainty about future market conditions.

The federal funds rate is the rate that banks charge each other for overnight loans. It is a key interest rate target for the Federal Reserve’s Federal Open Market Committee. The federal funds rate and short-term rates on Treasury securities, such as the 1-month Treasury bill, track each other very closely.

Average interest rate on federal debt held by the public is calculated as interest spending divided by debt held by the public.

Source: Congressional Budget Office, Department of the Treasury, and GAO. | GAO-23-106201
Note: According to the Congressional Budget Office, the average interest rate on debt held by the public is calculated by dividing net interest spending in the current fiscal year by debt held by the public at the end of the previous fiscal year.

As debt held by the public matures, Treasury will have to replace it, potentially at higher interest rates. This, in turn, would increase the government's interest costs. Treasury may also need to issue more debt to finance new deficits at higher market interest rates. During fiscal year 2022, interest rates on 10-year Treasury securities rose from 1.48 percent to 3.83 percent. Of all Treasury marketable securities held by the public, 28 percent will mature in fiscal year 2023 and 70 percent will mature within 6 years (see fig. 15).
Figure 15: Marketable Debt Held by the Public by Year of Maturity, as of September 30, 2022

<table>
<thead>
<tr>
<th>Fiscal year of maturity</th>
<th>Dollars (in billions)</th>
<th>Percentage of marketable debt held by the public that will mature during the time period</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>$6,700</td>
<td>28%</td>
</tr>
<tr>
<td>2024 through 2028</td>
<td>$10,049</td>
<td>42%</td>
</tr>
<tr>
<td>2029 through 2033</td>
<td>$2,966</td>
<td>13%</td>
</tr>
<tr>
<td>2034 and later</td>
<td>$3,959</td>
<td>17%</td>
</tr>
</tbody>
</table>

Source: GAO analysis of U.S. Department of the Treasury data. | GAO-23-106201

Risk to the Long-Term Outlook if Interest Rates Rise More than Expected

CBO states that forecasting interest rates is particularly challenging, even during relatively stable periods. In November 2022, CBO stated that it expects interest rates on 3-month Treasury bills and the federal funds rate to be higher in 2023 and 2024 than the rates the agency projected in May 2022. Economic effects, including higher interest rates, have also increased CBO projections for debt held by the public in 2023 and 2024.

Given the uncertainty surrounding assumptions in these long-term simulations, we ran a sensitivity analysis. This analysis provides additional information on how potential changes to our economic and fiscal assumptions can affect the fiscal outlook. Figure 16 shows the effect on the simulated debt-to-GDP ratio of increasing or decreasing our interest rate assumption, with all other variables held constant. In our high and low interest rate scenarios, the interest rate is either increased or decreased by 1 percentage point, relative to our standard assumption, in each year.

Sensitivity Analysis

Our simulations are sensitive to assumptions about projected health care costs, interest rates, spending, revenues, and economic growth. We adjust key variables one at a time to project the change in the debt-to-GDP ratio over the time period. See our interactive tool: https://www.gao.gov/americas-fiscal-future

Source: GAO. | GAO-23-106201

32 CBO, CBO’s Current View of the Economy in 2023 and 2024 and the Budgetary Implications (November 2022).
Higher Debt Levels Put Upward Pressure on Interest Rates and Could Slow Economic Growth

A failure to address the nation’s unsustainable fiscal path of high debt levels over the long term will likely put upward pressure on interest rates, and higher rates could hamper economic growth.

- **Relationship between debt and interest rates.** All else equal, growing debt is likely to increase interest rates.\(^{33}\) If the government wants investors to hold additional Treasury securities, investors may require higher interest rates. Consequently, increases in federal debt could lead to higher borrowing costs for both the public and private sectors of the economy.

- **Impact on economic growth.** Under higher interest rates, fewer private investments take place than would have happened had interest rates remained low. Less private investment in capital goods, housing, and research and development could reduce the amount of economic resources put toward productive uses, and as a result, reduces economic growth.\(^{34}\) Slower economic growth would further limit the government’s ability to raise additional revenue.

---

\(^{33}\) On average, over the long term, each increase of 1 percentage point in federal debt as a percentage of GDP boosts interest rates by 2 to 3 basis points—a basis point equals 0.01 percent. See CBO, *The Effect of Government Debt on Interest Rates*, Working Paper 2019-01 (Washington, D.C.; March 2019).

\(^{34}\) Higher interest rates result in higher borrowing costs, decreasing the amount of investment taking place. See CBO, *The 2022 Long-Term Budget Outlook* (July 2022).
Debt Limit Impasses and Fiscal Exposures Pose Risks to the Fiscal Outlook

Debt Limit Impasses Disrupt Treasury Markets and Increase Interest Costs

Many investors accept low interest rates on Treasury securities because they are considered one of the safest assets in the world—they are backed by the full faith and credit of the U.S. government. However, delays in statutorily raising or suspending the debt limit could compromise the safety of Treasury securities. Failure to raise or suspend the debt limit could force Treasury to delay payments on maturing securities and interest until sufficient funds are available, which would constitute a default. Even if action is taken before that point, the uncertainty disrupts financial markets, and investors may require higher interest rates to hedge against the increased risks—a risk premium. Higher interest rates, in turn, increase Treasury’s borrowing costs—even if action is taken in time to pay investors.

Delays in raising or suspending the debt limit require Treasury to deviate from its normal cash and debt management operations. Treasury must take extraordinary actions to avoid exceeding the debt limit, such as suspending investments to some federal employees’ retirement funds.

Delays in raising or suspending the debt limit have occurred in 12 of the last 13 fiscal years. Most recently, the U.S. debt reached the current statutory limit on January 19, 2023. Treasury began taking extraordinary actions to avoid exceeding the limit. In a letter to Congress on May 1, 2023, Treasury stated that after reviewing recent federal tax receipts, it estimates that Treasury will be unable

The debt limit is a statutory limit on the total amount of money that the federal government is authorized to borrow—subject to very limited exceptions—to meet its existing legal obligations, including Medicare and Social Security benefits, military salaries, interest on the federal debt, tax refunds, and other payments. The debt limit does not restrict Congress’ ability to pass spending and revenue legislation that affects the level of debt, nor does it otherwise constrain fiscal policy. However, without legislation to suspend or raise the debt limit, Treasury may not be able to continue issuing debt to finance the decisions already enacted by Congress and the President.

Source: GAO and Department of the Treasury. | GAO-23-106201

35 For more information on demand for Treasury securities, see GAO-20-131.
36 The debt limit is a statutory limit on the total amount of federal debt that can be outstanding at one time. The debt limit is codified at 31 U.S.C. § 3101(b), as amended, and includes federal debt issued pursuant to authority under Title 31, Chapter 31 of the United States Code. A very small amount of total federal debt is not subject to the debt limit. This amount primarily comprises unamortized discounts on Treasury bills and Zero Coupon Treasury bonds; certain debt securities issued by agencies other than Treasury, such as the Tennessee Valley Authority; and certain debt securities issued by the Federal Financing Bank.
37 Extraordinary actions are actions that Treasury takes as it nears the debt limit to avoid exceeding the limit. These actions are not part of Treasury’s normal cash and debt management operations. For more information, see GAO, Debt Limit: Market Response to Recent Impasses Underscores Need to Consider Alternative Approaches, GAO-15-476 (Washington, D.C.: July 9, 2015).
38 In a letter to Congress, the Secretary of the Treasury noted that the period of time that extraordinary actions may last is uncertain, given the challenge of forecasting future revenue and spending. Department of the Treasury, Debt Limit Letter to Congress (Washington, D.C.: Jan. 19, 2023).
to continue to satisfy all of the government’s obligations by early June, and potentially as early as June 1, if Congress does not raise or suspend the debt limit before that time.\textsuperscript{39}

If Treasury has exhausted all extraordinary actions and does not have enough cash on hand to meet its financial commitments, it could be forced to delay payments until sufficient funds become available or the debt limit is either statutorily increased or suspended. That is, Treasury might eventually be forced to default on legal debt obligations.

\begin{quote}
\textbf{Implications of a default}

A default could have devastating effects on U.S. and global economies and the public. On March 7, 2023 before the Senate Committee on Banking, Housing, and Urban Affairs, Federal Reserve Chair Jerome Powell said that the consequences of failing to raise the debt limit are hard to estimate, but that they could be extraordinarily adverse and could do long-standing harm.

Treasury securities serve as a close substitute to cash for financial institutions and corporate treasurers. They are one of the most widely used forms of collateral for financial transactions. Treasury securities are also used as a benchmark for pricing many other financial products, such as corporate bonds, derivatives, and mortgages. As such, a default could prevent them from serving in these essential financial functions and thereby have a substantial negative effect on the economic activity of financial institutions and businesses.

Moreover, a default would likely prevent the government from honoring all of its obligations to pay for such things as program benefits; contractual services and supplies; federal employees’ salaries, wages, and retirement benefits; and principal on maturing securities.

Source: GAO. | GAO-23-106201
\end{quote}

Our work has shown that even without a default, a debt limit impasse can be costly. For example, we found that during the 2013 debt limit impasse, estimated total increased borrowing costs incurred through September 30, 2014, on securities auctioned by Treasury ranged from roughly $38 million to more than $70 million.\textsuperscript{40}

Similarly, we found that during the 2021 debt limit impasse, investors took the unprecedented action of systematically avoiding certain Treasury securities—those that matured around the dates when Treasury projected it would exhaust extraordinary actions. On September 28, 2021, the Secretary of the Treasury estimated that Treasury would likely exhaust its extraordinary actions by October 18, 2021, at which point its ability to meet its financial commitments would be uncertain.\textsuperscript{41} Figure 17 shows a spike in yields for Treasury bills that were maturing in early October 2021, indicating that investors demanded a greater return for the increased risk. Yields then dropped around the time legislators announced a deal to increase the debt limit, indicating that investors perceived a decreased risk in holding Treasury bills.

\textsuperscript{39} Treasury stated that its estimate is based on currently available data and that the actual date that Treasury exhausts extraordinary measures could be a number of weeks later than estimated, because of variability in federal revenue and spending. See Department of the Treasury, \textit{Debt Limit Letter to Congress} (Washington, D.C.: May 1, 2023).

\textsuperscript{40} GAO-15-476.

Fiscal Exposures Pose Additional Risks to the Government’s Fiscal Condition

Certain fiscal exposures—such as natural disasters—create additional fiscal risks, as any future support for these areas is not fully accounted for in long-term fiscal simulations. A more complete understanding of fiscal exposures can help policymakers anticipate or take steps to mitigate the need for an increase in federal spending to respond to or support these areas. Table 2 lists examples of fiscal exposures, their implications for the federal government’s fiscal condition, and GAO reports for more information.

Fiscal exposures are responsibilities, programs, and activities that may legally commit the federal government to future spending or create expectations for future spending based on current policy, past practices, or other factors.

Source: GAO. | GAO-23-106201
### Table 2: Examples of Fiscal Exposures

<table>
<thead>
<tr>
<th>Fiscal Exposure</th>
<th>Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural Disasters and Climate Change</strong></td>
<td>Extreme weather events are expected to become more frequent and intense in parts of the U.S. due to changes in the climate, potentially resulting in increased costs to the federal government. Key sources of exposure include supplemental appropriations to provide disaster assistance, federal insurance programs, and federal property that might be affected. Between fiscal years 2015 and 2022, selected appropriations for disaster assistance totaled about $365 billion. Disaster assistance has often been provided through supplemental appropriations. For more information see: GAO-23-106203, GAO-22-106061, and GAO-17-425</td>
</tr>
<tr>
<td><strong>Global or Regional Military Conflicts</strong></td>
<td>Military conflicts are uncertain, and they generally require substantial federal spending over time—both during and after a conflict. The scope and magnitude of any future military conflict could be large. Resulting costs, while unknown, could be significant, further complicating the government’s unsustainable fiscal outlook. For example, according to a joint report produced by the Departments of Defense and State and the U.S. Agency for International Development, in 2022, Congress provided about $113.4 billion in security assistance and other supplemental funding to respond to the military conflict in Ukraine through four emergency supplemental funding measures. For more information see: GAO-22-106079 and GAO-19-211</td>
</tr>
<tr>
<td><strong>Housing Finance</strong></td>
<td>The financial condition of government and government-sponsored mortgage entities (e.g., Fannie Mae and Freddie Mac) has strengthened in recent years, but the federal government continues to have substantial exposure to potential mortgage losses due to its large market role. For example, as of December 31, 2022, Fannie Mae and Freddie Mac had received $191.4 billion in capital support from the Department of the Treasury. If these entities were to incur major future losses, they may draw needed amounts from the remaining $254.1 billion in capital support committed by Treasury. An economic downturn or decline in home prices could slow their progress in building capital reserves that protect against unexpected losses. For more information see: GAO-23-106203 and GAO-22-104284</td>
</tr>
<tr>
<td><strong>Public Health Crises</strong></td>
<td>Widespread public health crises are among the large-scale fiscal exposures that can result in catastrophic loss of life and have devastating effects on the economy, costing trillions of dollars to mitigate. For example, to help address the COVID-19 pandemic, Congress and the President have provided about $4.6 trillion in COVID-19 relief funding to protect public health and reduce economic impacts on individuals and businesses. For more information see: GAO-23-106203, GAO-23-106647, GAO-22-105715, GAO-22-105397, GAO-22-105291, GAO-22-105051, and GAO-21-551</td>
</tr>
</tbody>
</table>

Source: GAO. | GAO-23-106201
This total includes $269 billion in selected supplemental appropriations to federal agencies for disaster assistance and approximately $96 billion in annual appropriations to the Disaster Relief Fund for fiscal years 2015 through 2022. It does not include other annual appropriations to federal agencies for disaster assistance. Of the supplemental appropriations, $97 billion was included in supplemental appropriations acts that were enacted primarily in response to the COVID-19 pandemic.


d The approximate $4.6 trillion is the cumulative amount of funding provided in the portions of six COVID-19 relief laws enacted in 2020 and 2021 that the Office of Management and Budget (OMB) has identified for recording and tracking as COVID-19 relief funding. These amounts can fluctuate from month to month. Increased spending in Medicaid and Medicare is not included in OMB’s guidance for recording and tracking COVID-19 relief funding.
Action Is Needed to Change the Unsustainable Fiscal Path

Our examination of the government’s current fiscal condition and the long-term fiscal outlook highlights both short- and long-term challenges that require action to alter the government’s fiscal path. Managing the nation’s complex challenges requires effective strategies to better plan for and manage risks in highly uncertain environments and changing conditions.

A fiscal plan would provide policymakers with a framework to help manage such uncertainty and support difficult policy decisions to achieve a more sustainable fiscal policy. Further, addressing the financial condition of the Medicare and Social Security trust funds is becoming more urgent. OMB-Treasury, CBO, and GAO all have reported that the sooner actions are taken to change the fiscal path, the less drastic the changes will need to be.42

Fiscal Plan Needed to Put the Nation on a Sustainable Path

Since 2017, we have stated that a plan is needed to address the government’s fiscal outlook and promote fiscal sustainability. A long-term plan can provide a cohesive picture of the government’s long-term goals. It can also serve as a mechanism for building consensus around these goals, as well as a road map for achieving them. Our work in recent years has identified several components of an effective fiscal plan. Congress could:

Incorporate well-designed fiscal rules and targets. In September 2020, we suggested that as part of a long-term fiscal plan, Congress consider including fiscal rules and targets.43 Fiscal rules and targets can help manage debt by controlling factors such as spending and revenue to meet a deficit or debt-to-GDP target. For example, a primary balance rule would establish a target for the primary deficit or surplus each year. We identified key considerations for the design, implementation, and enforcement of fiscal rules and targets (see table 3).

---

Table 3: Key Considerations for the Design, Implementation, and Enforcement of Fiscal Rules and Targets

<table>
<thead>
<tr>
<th>Key consideration</th>
<th>Supporting explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment with Fiscal Policy Goals and Objectives</td>
<td>Setting clear goals and objectives can anchor a country’s fiscal policy. Fiscal rules and targets can help ensure that spending and revenue decisions align with agreed-upon goals and objectives.</td>
</tr>
<tr>
<td>Design Tradeoffs and Features</td>
<td>The weight given to tradeoffs among simplicity, flexibility, and enforceability depends on the goals a country is trying to achieve with a fiscal rule. In addition, there are tradeoffs between the types and combinations of rules, as well as the time frames over which the rules apply.</td>
</tr>
<tr>
<td>Legal Framework and Permanence</td>
<td>The degree to which fiscal rules and targets are binding, such as being supported through a country’s constitution or nonbinding political agreements, can impact their permanence, as well as the extent to which ongoing political commitment is needed to uphold them.</td>
</tr>
<tr>
<td>Integration with Budgetary Processes</td>
<td>Integrating fiscal rules and targets into budget discussions can contribute to their ongoing use and provide for a built-in enforcement mechanism. The budget process can include reviews of fiscal rules and targets</td>
</tr>
<tr>
<td>Flexibility to Address Emerging Issues</td>
<td>Fiscal rules and targets with limited, well-defined exemptions, clear escape clauses for events such as national emergencies, and adjustments for the economic cycle can help a country address future crises</td>
</tr>
<tr>
<td>Clear Roles for Supporting Institutions</td>
<td>Institutions supporting fiscal rules and targets need clear roles and responsibilities for supporting their implementation and measuring their effectiveness. Independently analyzed data and assessments can help institutions monitor compliance with fiscal rules and targets</td>
</tr>
<tr>
<td>Transparency and Communication</td>
<td>Having clear, transparent fiscal rules and targets that a government communicates to the public and that the public understands can contribute to a culture of fiscal transparency and promote fiscal sustainability for the country.</td>
</tr>
</tbody>
</table>

Source: GAO.  |  GAO-23-106201

Consider changes to revenue—including tax expenditures. CBO has identified potential options to reduce the deficit through revenue changes. Options could include: (1) changing existing revenue sources, such as by increasing tax rates or broadening the extent of income subject to taxation; or (2) imposing new forms of taxation, such as on consumption or greenhouse gases.44

Tax expenditures may include

- deductions and exclusions which reduce the amount of income subject to tax (e.g., deductions for personal residence mortgage interest), and
- tax credits, which reduce tax liability and in some cases can result in a cash refund (e.g., child tax credit).

Source: Department of the Treasury.  |  GAO-23-106201

Tax expenditures can help achieve social and economic goals. However, they also limit the extent of income subject to taxation and reduce individual or corporate taxpayers’ tax liability—and therefore the amount of tax revenue the federal government collects.\(^{45}\) In addition, it is not always clear how successfully tax expenditures achieve their intended policy goals.\(^{46}\) Absent such analysis, policymakers have little way of knowing whether these tax provisions achieve their intended outcomes and have limited information to compare their cost and efficacy with other policy tools.

In fiscal year 2022, tax expenditures reduced income tax revenues by approximately $1.5 trillion, according to our calculation summing Treasury estimates for each tax expenditure.\(^{47}\) Policymakers could consider options for limiting the effects of these tax expenditures, such as setting maximum claim amounts or restricting eligibility.\(^{48}\) For example, the recent CBO report on reducing the deficit explored the possibility of eliminating or limiting itemized deductions on income tax returns. CBO’s projections estimated that this change could reduce the deficit by $541 billion to $2.5 trillion by 2032.

**Assess spending—including entitlement programs, other mandatory spending, and discretionary spending.** In fiscal year 2022, mandatory spending represented about two-thirds of all federal spending. Routinely assessing mandatory spending will be an important part of an effective fiscal plan. Among the options CBO identified to reduce mandatory spending include (1) establishing caps on federal Medicaid spending, (2) reducing Social Security benefits for high earners, and (3) raising the Social Security retirement age.

**Calculate the fiscal gap.** One way to quantify the policy changes required to meet any given fiscal goal is to calculate the fiscal gap—a measure of how much primary deficits must be reduced through policy changes (some combination of revenue increases or spending cuts) over a period to reach a target ratio of debt-to-GDP. For example, to achieve a 100 percent debt-to-GDP ratio at the end of 30 years (2022 to 2051), Congress would need to increase projected revenues by 23.2 percent, decrease projected program spending by 18.6 percent annually, or perform a combination of the two.\(^{49}\)

---

\(^{45}\) Tax expenditures, as defined by law, are revenue losses attributable to provisions of the federal tax code that reduce taxpayers’ tax liability and therefore the amount of tax revenue paid to the federal government. Examples include tax credits, deductions, exclusions, exemptions, deferrals, and preferential tax rates. 2 U.S.C. § 622(3). For more information on our work on tax expenditures, see GAO, Key Issues: Tax Expenditures.

\(^{46}\) In July 2016, we recommended in GAO-16-622 that OMB work with agencies to identify which tax expenditures contribute to agency goals. OMB generally agreed but plans no action to address this recommendation as of April 2023.

\(^{47}\) We calculate this estimate based on Treasury data. The sum of the specific tax expenditure estimates is useful for gauging the general magnitude of reduced revenue through provisions of the tax code. However, aggregate tax expenditure estimates must be interpreted carefully. Summing revenue loss estimates does not take into account possible interactions between individual provisions or potential behavioral responses to changes in these provisions on the part of taxpayers. Additionally, Treasury’s tax expenditure estimates include the effect of certain tax credits on revenue only and not the effect of the credits on spending—which Treasury reports separately—but does not take into account interactions between individual provisions.


\(^{49}\) Changes represent the immediate and permanent change in projected revenue or program spending alone needed to meet the specified debt-to-GDP target at the end of 30 years. Program spending consists of all spending except net interest spending. For more information on the fiscal gap, see our interactive tool: https://www.gao.gov/americas-fiscal-future.
Consider alternative approaches to the debt limit. To avoid disrupting the Treasury market and increasing borrowing costs and to improve federal debt management, Congress should consider alternative approaches to the debt limit. The 116th and 117th Congresses considered legislation that, if enacted, could have helped avoid debt limit impasses.\textsuperscript{50} We have identified alternative approaches, each of which has strengths and weaknesses. All approaches would maintain congressional control and oversight of federal borrowing and better align decisions about the level of debt with decisions on spending and revenue at the time those decisions are made.\textsuperscript{51} We do not endorse a specific option, but have suggested Congress consider such approaches.

### Alternative Approaches to Avoid Impasses on the Debt Limit

- Link action on the debt limit to the budget resolution.
- Provide the administration with the authority to propose a change in the debt limit that would take effect absent enactment of a joint resolution of disapproval within a specified time frame.
- Delegate broad authority to the administration to borrow as necessary to fund enacted laws.

Source: GAO. | GAO-23-106201

### Address Financing Gaps for Medicare and Social Security

The financial outlook for Medicare and Social Security is being strained by increased spending due to increasing health care costs and the aging population. These programs are also strained by decreased revenue growth due to slower growth in the labor force.

### Medicare and Social Security Trust Funds

- **The Hospital Insurance Trust Fund (Medicare Part A)** pays for inpatient hospital services and other related care, such as home health services following hospital stays, services provided in skilled nursing facilities, and hospice. The primary source of trust fund revenue is payroll taxes.
- **The Supplementary Medical Insurance Trust Fund** covers Part B (physician and outpatient services) and Part D (prescription drug benefits). The primary sources of trust fund revenue are monthly insurance premiums (set to cover 25 percent of expected costs) and general revenues that finance remaining program costs.
- **Social Security** is financed through the **Old-Age and Survivors Insurance Trust Fund**, which pays retirement and survivor benefits, and the **Disability Insurance Trust Fund**, which pays disability benefits. The primary source of trust fund revenue is payroll taxes.

Source: The Medicare and Social Security Trustees. | GAO-23-106201

\textsuperscript{50} For example, in the 116th Congress S. 2765, a bipartisan bill that included a provision that would have automatically adjusted the debt limit to conform to levels established in the budget resolution was introduced in the Senate but never voted out of committee. S. 2765, 116th Cong. (2019). Several relevant bills were also introduced in the 117th Congress. For example, H.R. 6393, 117th Cong. (2022), would, among other things, have allowed the President to suspend the statutory debt limit under certain conditions unless a congressional joint resolution of disapproval was enacted. H.R. 5415, 117th Cong. (2021), would have allowed Treasury to increase the public debt limit. In addition, S.3654 would have allowed additional debt to be issued if the President sent Congress certification whenever the debt amount is within $100 billion of reaching a new trillion-dollar increment, subject to a joint resolution of disapproval.

\textsuperscript{51} See GAO-15-476.
The federal government maintains four separate trust funds to finance key aspects of the Medicare and Social Security programs. Federal trust funds can retain accumulated balances, meaning that any surpluses are credited to the trust funds and invested in Treasury securities.

For decades, the trust funds for Medicare Hospital Insurance (Medicare Part A) and Social Security received more in revenue than they paid out in benefits and the trust funds built up reserves. However, costs for the Old-Age and Survivors Insurance (OASI) have exceeded tax revenues for the program since 2010 and are expected to continue exceeding revenue throughout the Trustees’ 75-year projection period. Similarly, the Trustees project that costs for Medicare Hospital Insurance (HI) will begin to exceed its tax revenues in 2025 and costs for Disability Insurance will begin to exceed its revenue in 2044.

As the U.S. population aged, more individuals began receiving Medicare and Social Security benefits and exiting the workforce, meaning that more were receiving benefits from the programs and fewer were making payroll tax contributions to the programs. As a result, the Social Security Administration has been drawing on trust fund reserves to continue making full benefit payments to OASI beneficiaries, and the Centers for Medicare & Medicaid Services is projected to begin drawing on HI Trust Fund reserves for its beneficiaries.

Figure 18 illustrates this trend and shows the estimated trust fund depletion dates for Medicare and the Social Security Old-Age and Survivors Insurance—when the reserves in the trust funds reach zero.

A build-up and eventual draw-down of the Social Security trust funds was anticipated in 1983, when major legislative changes were enacted. The payroll tax rate was scheduled at a level that created trust fund surpluses (income in excess of outflows) while the baby boom generation was in the workforce and an expectation of future deficits (outflows in excess of income) as the baby boom generation retired. The accumulated surpluses built a reserve in the trust funds that the deficits were expected to draw down.

The combined Old-Age and Survivors Insurance and Disability Insurance trust fund was projected to have a positive balance throughout the 75-year projection period at the time of the 1983 Trustees report. Historical analyses performed by the Social Security Administration of the actuarial balance suggest that most of the unexpected deterioration since then can be attributed to economic factors.

Source: GAO and the Social Security Administration. | GAO-23-106201

---

52 Trust fund reserves are the cumulative excess of trust fund income over trust fund cost over all years to date. These reserves are held by trust funds in the form of intragovernmental Treasury securities and cash.

53 According to the 2023 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, the Disability Insurance Trust Fund reserves are not projected to become depleted within the 75-year long-range projection period. According to the Board of Trustees, disability application and incidence rates have declined substantially since 2010. In addition, the depletion date of the Disability Insurance Trust reserve is sensitive to changes in program cash flows and interest.
Notes: Reserves as a share of program cost is a measure of trust fund adequacy and represents the asset reserves at the beginning of a year expressed as a percentage of the estimated cost for the year. After trust fund depletion, the percent of scheduled benefits covered by payroll tax and other revenue is projected to vary in future years.

Medicare’s Supplemental Medical Insurance (SMI) trust fund, which covers Part B (physician and outpatient services) and Part D (prescription drug benefits), is not reflected in the figure because it receives annual transfers from general revenue to finance program costs not covered by monthly premiums. The Trustees expect growth in SMI Part B and Part D premiums and transfers from the General Fund of the United States to continue to outpace GDP growth in the future.

Due to the uncertain nature of key assumptions used in making long-term projections of these programs, projections other than the Trustees’, such as those issued by the Congressional Budget Office, will typically result in different outcomes based on different assumptions about future experience.

Once these trust funds’ reserves are depleted, the programs would be financed only by annual program revenue, which would be insufficient to support the full amount of promised benefits. In addition, drawing down these trust funds adds to the debt held by the public. This occurs because these trust funds redeem their Treasury security investments, which causes Treasury to issue new securities.

**What Happens When a Trust Fund Is Depleted?**

Legislation would be needed for promised benefits to be paid in full. Medicare Part A and Social Security programs are legally restricted from using General Fund revenue to make benefit payments. Once the trust fund is depleted, it is projected that the programs will not be able to make full benefit payments from income received from employment taxes and other sources.

Source: GAO. | GAO-23-106201
Medicare Part A's and Social Security's financial shortfalls will need to be addressed with further legislation. Changing the trajectory of the programs' finances would require some combination of the following:

- **Additional income.** Potential sources of additional income include payroll tax rate increases, taxable wage base increases (in the case of Social Security), or more general revenue.

- **Cost reductions.** Potential sources of cost reduction or containment include increasing the age at which individuals can receive benefits, changing the benefit formula, or health care cost controls (in the case of Medicare).

A wide variety of options have been developed and studied for addressing challenges in financing Medicare and Social Security. GAO developed a broad framework to help evaluate Social Security reform proposals.

### Criteria to Evaluate Options for Medicare and Social Security Reform

- The extent to which a proposal achieves "sustainable solvency"—where the projected balance between program assets and costs is positive throughout a 75-year period and stable or rising at the end of the period.

- The effect on the national economy and the federal budget. It is important to consider how proposals to achieve solvency would be financed, since this could have important implications for the federal budget and national economy.

- The relative balance struck between the goals of individual equity and income adequacy. Individual equity focuses on whether, over the course of a lifetime, individuals receive benefits that bear a reasonable relationship to their past earnings and contributions (for example, the rates of return on contributions). Income adequacy focuses on the level and certainty of benefits for individuals and families.

- How readily a proposal could be implemented, administered, and explained to the public. Factors such as feasibility, complexity, and cost of implementation and administration can influence policy choices. Changes that are not well-understood could face difficulties in achieving broad public acceptance and support. A reasonable amount of time will be required for the general public to understand how program changes might affect them and to make adjustments based on these changes. For instance, individuals may decide they need to work longer.

Source: GAO. | GAO-23-106201

---

Reducing Improper Payments Could Yield Savings

Reducing improper payments is critical to safeguarding federal funds and can help reduce annual deficits.\textsuperscript{55} Since fiscal year 2003—when federal executive agencies were required by statute to begin reporting estimated improper payments for certain programs and activities—cumulative improper payment estimates have totaled about $2.4 trillion, including $247 billion for fiscal year 2022.\textsuperscript{56} Table 4 shows selected programs that reported estimated improper payments greater than $5 billion in fiscal year 2022.

**An improper payment** is statutorily defined as any payment that should not have been made or that was made in an incorrect amount (including overpayments and underpayments) under statutory, contractual, administrative, or other legally applicable requirements.

**Fraud** involves obtaining something of value through willful misrepresentation, which is determined through a court or other adjudicative system. While cases of fraud can contribute to improper payments, not all cases of improper payments involve fraud.


### Table 4: Selected Programs with Estimated Improper Payments Exceeding $5 Billion

<table>
<thead>
<tr>
<th>Program or activity</th>
<th>Fiscal year 2022 estimated improper payments (dollars in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>$80.6</td>
</tr>
<tr>
<td>Medicare Parts A and B (Medicare Fee-for-Service)</td>
<td>$31.5</td>
</tr>
<tr>
<td>Paycheck Protection Loan Program</td>
<td>$29.0</td>
</tr>
<tr>
<td>Federal State Unemployment Insurance</td>
<td>$18.3</td>
</tr>
<tr>
<td>Earned Income Tax Credit</td>
<td>$18.2</td>
</tr>
<tr>
<td>Medicare Part C (Medicare Advantage)</td>
<td>$13.9</td>
</tr>
<tr>
<td>COVID Economic Injury Disaster Loan</td>
<td>$6.9</td>
</tr>
<tr>
<td>Education Stabilization Fund</td>
<td>$6.0</td>
</tr>
<tr>
<td>Education Title I Grants to Local Educational Agencies</td>
<td>$5.4</td>
</tr>
<tr>
<td>Additional Child Tax Credit</td>
<td>$5.2</td>
</tr>
</tbody>
</table>

Source: Office of Management and Budget's paymentaccuracy.gov. | GAO-23-106201

\textsuperscript{55} The Payment Integrity Information Act of 2019 defines an improper payment as any payment that should not have been made or that was made in an incorrect amount (including overpayments and underpayments) under statutory, contractual, administrative, or other legally applicable requirements. Pub. L. No. 116-117, § 2, 134 Stat. 113, 114 (2020), codified at 31 U.S.C. § 3351. This definition includes any payment to an ineligible recipient, any payment for an ineligible good or service, any duplicate payment, any payment for a good or service not received (except for such payments where authorized by law), and any payment that does not account for credit for applicable discounts. When an executive agency’s review is unable to discern whether a payment was proper as a result of insufficient or lack of documentation, this payment must also be included in the improper payment estimate. 31 U.S.C. § 3352(c)(2).

\textsuperscript{56} Prior-year improper payment estimates have not been adjusted for inflation.
Improper payments related to Medicaid, Medicare, Unemployment Insurance, and Small Business Administration Emergency Loan Programs are all on our High-Risk List. We have identified a number of strategies and actions to reduce related improper payments, which address the full portfolio of fraud and other financial risks for these programs.

Our work on improper payments, financial management, and the federal government’s response to the pandemic has provided suggested actions for Congress and federal agencies to increase transparency and accountability of federal spending by strengthening federal financial and fraud risk management. For example, these actions include improving the following:

- **Designation of susceptible programs.** Designating all new programs making more than $100 million in payments “susceptible to significant improper payments” would make these programs subject to the statutory requirement for agencies to estimate and report on these programs’ improper payments. Under OMB’s current improper payment estimate guidance, agencies are not required to estimate improper payments for programs in their initial year of operation. In some instances, agencies may not report improper payment estimates associated with new emergency relief programs until 2 to 3 years after the programs are established, if at all. Quickly reporting improper payment estimates for emergency relief programs is critical to agency accountability and transparency over whether appropriated funds were spent for their intended purposes. In addition, estimating improper payments and identifying root causes help ensure that agencies develop and implement corrective actions to help reduce them.

- **Internal control plans.** An effective, robust internal control system helps agencies adapt to shifting environments, evolving demands, changing risks, and new priorities throughout the life cycle of federal programs. Requiring OMB to develop and provide guidance for internal control plans now would help ensure that agencies have considered the payment integrity risks associated with emergency funding and developed internal controls to help mitigate those risks. Such planning could also help provide critical transparency tools to give Congress some assurance that agencies will be able to establish and adapt, as appropriate and necessary, effective and efficient controls over new or expanded federal funding during emergencies.

---

57 GAO’s High Risk List is a list of federal programs and operations that are vulnerable to fraud, waste, abuse, and mismanagement, or need transformation. The list is issued every 2 years at the start of each new session of Congress and has led to more than $675 billion in financial benefits to the federal government over the past 17 years. For the full list, see GAO, High-Risk Series: Efforts Made to Achieve Progress Need to Be Maintained and Expanded to Fully Address All Areas, GAO-23-106203 (Washington, D.C.: Apr. 20, 2023).


• **Fraud risk management.** Reinstating the requirement that agencies report on their antifraud controls and fraud risk management efforts in their annual financial reports will increase congressional oversight to better ensure fraud prevention during normal operations and emergencies. In addition, establishing a permanent analytics center of excellence would aid the oversight community, namely federal agencies’ Offices of the Inspector General, in identifying improper payments and fraud.

• **Data sharing across the government.** Payments to deceased individuals are a source of improper payments across the government. Making the requirement to share the Social Security Administration’s full death data with certain agencies, including Treasury, permanent can be an important step to reducing the likelihood of federal improper payments.

### Modest Reductions in the Tax Gap Could Yield Large Fiscal Benefits

Improving tax compliance could help narrow the tax gap—the difference between what taxpayers owe and the amount they actually pay voluntarily and on time. As of October 2022, IRS estimates the annual net tax gap for tax years 2014 through 2016 to be around $428 billion (see fig. 19). IRS projections estimate that a vast majority of the tax gap results from taxpayers underreporting their income. Given the size of the tax gap each year, even modest increases in compliance could yield significant financial benefits and help improve the government’s fiscal condition.

**Figure 19:** The Internal Revenue Service’s Estimate of the Average Annual Tax Gap for Tax Years 2014-2016

- **Taxes owed**
  - $3.3 trillion/year in federal taxes from things like: Individual income taxes, corporate income taxes, employment taxes

- **Taxes paid**
  - $2.8 trillion/year

**This difference of $496 billion/year is the Gross Tax Gap.**

Although IRS estimated that it will collect an extra $68 billion/year through late payments and enforcement activities, it also estimated that $428 billion/year will never be collected, representing the Net Tax Gap.

Source: Internal Revenue Service (IRS) | GAO-23-106201
Improving tax enforcement and addressing the tax gap is a persistent issue and is on our High-Risk List. Our work has identified a number of strategies and actions the IRS can take to reduce the tax gap, including actions to help

- expand third-party information reporting to improve compliance; and
- strategically allocate resources for enforcement efforts, including expanding systems that can help streamline the detection of fraud and increase taxpayer compliance.

We have also previously suggested targeted legislative actions to reduce the tax gap, such as

- requiring that returns prepared electronically but filed on paper include a scannable code; and
- providing IRS with authority to correct math errors and errors in cases where information provided by the taxpayer does not match information in government databases; and
- establishing professional requirements for paid tax return preparers to help improve the accuracy of the tax returns they prepare.

As of April 2023, these recommendations had not been fully implemented. Given the size of the tax gap, even modest reductions would yield significant financial benefits and help improve the government’s fiscal condition.

---

64 See GAO-18-544.
This publication was prepared under the direction of Jeff Arkin, Director, Strategic Issues, who may be reached at (202) 512-6806 or arkinj@gao.gov; Robert F. Dacey, Chief Accountant, who may be reached at (202) 512-3406 or daceyr@gao.gov; and Dawn B. Simpson, Director, Financial Management and Assurance, who may be reached at (202) 512-3406 or simpsondb@gao.gov if there are any questions. GAO staff who made key contributions to this publication are listed in appendix III. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this publication. In addition, this publication will be available at no charge on GAO’s website at http://www.gao.gov.

Gene L. Dodaro
Comptroller General of the United States
APPENDIX I
Objectives, Scope, and Methodology

This report summarizing the fiscal health of the federal government was conducted under the authority of the Comptroller General. In this report, we discuss the following:

- **The change in the government’s fiscal condition from fiscal years 2019 to 2022.** We summarized budgetary data reported by the Congressional Budget Office (CBO) and the Department of the Treasury.

- **Outcomes from our 75-year simulation of the government’s fiscal outlook.** We produced a simulation using the most current projections developed by CBO and the Boards of Trustees for the Social Security and Medicare programs. For more information on the design and methodology of our simulation, see appendix II. We also reviewed CBO’s 30-year projections and 75-year projections by the Office of Management and Budget and Treasury.

- **Additional risks to the fiscal outlook.** To highlight the sensitivity of our simulation, we adjust key assumptions, such as interest rates, to see how they affect the debt-to-GDP ratio over the projection period. We also analyzed Treasury data on debt maturity and interest rates and reviewed CBO reports.

To highlight the risk of certain events or programs affecting the government’s fiscal outlook, we drew from our large body of work on the debt limit and fiscal exposures, such as natural disasters and climate change, global or regional military conflicts, housing finance, and public health crises.

To develop components of a plan for a sustainable long-term fiscal path, we drew from our prior fiscal health reports and prior work on the use of fiscal rules and targets. To illustrate the magnitude and scale of reforms needed to meet certain fiscal targets, we presented a fiscal gap analysis based on our long-term simulation.

To identify actions that Congress and agencies could take now to yield financial benefits, we drew from our High-Risk List and our work on improper payments, fraud risk management, and tax enforcement. We highlighted open matters for Congress and recommendations related in these areas.

We conducted our work from August 2022 to May 2023 in accordance with all sections of GAO’s Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions in this product.
APPENDIX II

Methodology and Design: GAO’s 75-year Fiscal Simulation

We updated our 75-year fiscal simulation with the most current projections available from the Congressional Budget Office (CBO) and the Boards of Trustees for Social Security and Medicare. These projections can help policymakers and the public assess the urgency and magnitude of policy reforms necessary to make fiscal policy sustainable. A sustainable fiscal policy is one where government spending and revenue policy does not cause debt to rise continuously relative to the economy.

GAO’s simulation is designed to illustrate the nation’s potential fiscal path under current policy. Current policy can differ from current law in cases where policymakers have in the past periodically changed the law in a consistent way. The methodology and selected assumptions that underlie our simulation are described below.

Simulation Assumptions and Methodology

GAO’s 75-year simulation incorporates the most current projections from CBO (30-year projections) and the Social Security and Medicare Boards of Trustees (75-year projections). The 75-year period encompasses essentially the entire future life span of all current workers and beneficiaries at the beginning of this period.67

For this 2023 update, we used CBO’s 2022 and 2023 budget and economic updates.68 The Trustees’ data reflect events through calendar year 2021 and were published in June 2022.69 The simulation does not reflect any legislation or economic developments occurring after these reports. Table 5 summarizes key projections in our simulation for the 75-year projection period.

---

68 For CBO, we used the most current projections available at the time. For this report, we used CBO’s 10-year projections as of February 2023 and its 30-year projections as of July 2022. See The Budget and Economic Outlook: 2023 to 2033 (February 2023) and The 2022 Long-Term Budget Outlook (July 2022).
69 The Trustees projections were published on June 2, 2022. Social Security and Medicare Trustees’ Reports can be found at https://www.ssa.gov/OACT/TR/. 
Table 5: GAO Simulation: Summary of Key Projections

<table>
<thead>
<tr>
<th>Variable</th>
<th>2022</th>
<th>2023</th>
<th>2024-2032 (annual average)</th>
<th>2033-2052 (annual average)</th>
<th>2053-2096 (annual average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (percent of gross domestic product (GDP))a</td>
<td>19.6</td>
<td>18.1</td>
<td>17.0</td>
<td>17.6</td>
<td>17.4</td>
</tr>
<tr>
<td><strong>Spending (percent of GDP)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total spending</td>
<td>24.4</td>
<td>23.2</td>
<td>23.5</td>
<td>28.4</td>
<td>41.6</td>
</tr>
<tr>
<td>Major health care programs</td>
<td>6.0</td>
<td>5.9</td>
<td>6.2</td>
<td>7.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Medicareb</td>
<td>3.2</td>
<td>3.3</td>
<td>3.8</td>
<td>5.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Federal share of Medicaid, Children's Health Insurance Program, and insurance premium and cost-sharing subsidies for health care insurance purchased through the health insurance exchanges</td>
<td>2.8</td>
<td>2.6</td>
<td>2.3</td>
<td>2.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Social Securityc</td>
<td>4.8</td>
<td>5.1</td>
<td>5.6</td>
<td>6.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Other programsd</td>
<td>11.7</td>
<td>9.7</td>
<td>8.6</td>
<td>8.7</td>
<td>9.1</td>
</tr>
<tr>
<td>Net interest</td>
<td>1.9</td>
<td>2.4</td>
<td>3.1</td>
<td>5.8</td>
<td>16.4</td>
</tr>
<tr>
<td>Nominal interest rate on debt held by the public (percent)</td>
<td>2.1</td>
<td>2.6</td>
<td>3.0</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Real GDP change (percent)</td>
<td>4.6</td>
<td>0.3</td>
<td>2.0</td>
<td>1.9</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: GAO simulation. | GAO-23-106201

Note: Numbers may not add due to rounding.

a Revenue consists of revenue from individual income taxes, Social Security and Medicare payroll taxes, corporate income taxes, and other revenue.

b Medicare spending is net of premiums and other offsetting revenue and reflects an assumption that Medicare will continue to pay benefits as scheduled under current law, regardless of the status of the program’s trust funds.

c Social Security spending reflects an assumption that Social Security will continue to pay benefits as scheduled under current law, regardless of the status of the program’s trust funds.

d Other programs spending includes other mandatory spending and discretionary spending.

We construct our simulation based on recent trends in policy and budget, which in some cases are assumed to be different from current law. Tables 6 and 7 summarize selected budget and economic assumptions, including notable differences between recent policy trends that underlie our simulation and current law.
Table 6: GAO's Long-Term Simulation: Selected Budget Assumptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assumption</th>
</tr>
</thead>
</table>
| **Revenue** | From 2022 to 2032, GAO adjusts the Congressional Budget Office's (CBO) baseline revenue projections based on the assumption that certain temporary tax provisions will be extended.  
Starting in 2033, GAO phases to a 50-year historical average for revenue as a percent of gross domestic product (GDP) (17.4 percent of GDP). |
| **Program spending** | |
| Social Security spending | From 2022 to 2032, GAO uses CBO’s baseline projections.  
Starting in 2033, GAO phases to the Social Security Trustees’ intermediate cost projections.  
We assume that Social Security payments will be made as scheduled beyond the projected point of trust fund depletion. This approach is consistent with CBO, the Office and Management and Budget and the Department of the Treasury (OMB-Treasury), and the Board of Trustees. |
| Medicare spending | **Gross Medicare spending:** From 2022 to 2031, GAO adjusts the Medicare Trustees’ alternative projections to remove sequestration reductions to Medicare spending.  
Starting in 2032, GAO phases to Medicare Trustees' alternative projections.  
**Offsetting revenue:** GAO uses Medicare Trustees' projections.  
Excess cost growth averages 0.6 percent. Excess cost growth refers to the annual growth rate of health care spending per enrollee in excess of the annual growth rate of potential GDP per capita, adjusted for demographic characteristics.  
We assume that Medicare Part A benefit payments will be made as scheduled beyond the projected point of trust fund depletion. This approach is consistent with CBO, OMB-Treasury, and the Board of Trustees. |
| Federal spending on Medicaid, the Children's Health Insurance Program, and insurance premiums and cost-sharing subsidies for insurance purchased through the health insurance exchanges | From 2022 to 2052, GAO uses CBO's projection.  
After 2052, GAO extends the data by continuing growth at the growth rate between the last 2 years of CBO’s data (2051-2052). |
| Other mandatory spending | From 2022 to 2032, GAO adjusts CBO’s baseline projections by adding back in sequestration reductions, consistent with our assumption that sequestration will not be fully implemented, based on past precedent.  
Starting in 2033, GAO holds other mandatory spending constant as a share of GDP at CBO’s 2032 projection (2.2 percent of GDP). |
| Discretionary spending | From 2022 to 2032, GAO uses CBO’s discretionary spending projections.  
Starting in 2033, GAO phases to a 20-year historical average for discretionary spending as a share of GDP (7.2 percent of GDP). |
| Debt limits | Projected spending and borrowing levels are assumed without potential debt limit considerations. |

Source: GAO. | GAO-23-106201
Table 7: GAO’s Long-Term Simulation: Selected Economic Assumptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real gross domestic product (GDP) growth rate</td>
<td>From 2022 to 2032, GAO uses the Congressional Budget Office’s (CBO) GDP projection. Starting in 2033, GAO grows GDP at the rate underlying the Social Security Trustees’ intermediate scenario projections.</td>
</tr>
<tr>
<td>Nominal average interest rate (on debt held by the public)</td>
<td>From 2022 to 2032, GAO uses the rate implied by CBO’s baseline net interest payment projections. From 2033 to 2052, GAO phases to CBO’s long-term nominal interest rate projections. After 2052, GAO holds CBO’s 2052 projection constant.</td>
</tr>
<tr>
<td>Rate of inflation (as percentage change in GDP price index)</td>
<td>From 2022 to 2031, GAO adjusts the Medicare From 2022 to 2032, GAO uses CBO’s baseline GDP price index percent change data. Starting in 2033, GAO grows the price index at the same rate as the growth between 2032 and 2033 implied by the CBO projections.</td>
</tr>
</tbody>
</table>

Source: GAO. | GAO-23-106201

Sensitivity Analyses

Given the uncertainty surrounding assumptions in these long-term simulations, we ran sensitivity analyses to provide additional information on how potential economic and fiscal changes to our assumptions about the variables can affect the fiscal outlook. We adjust the following variables one at a time to examine how changes in these underlying assumptions affect the debt-to-GDP ratio in our simulation (see table 8). These partial equilibrium adjustments show only the effect on the debt-to-GDP ratio of changing a single variable in our simulation holding all other variables constant.

Table 8: GAO Simulation: Independent Variable Adjustments

| Average interest rate | +/- 0.5 percentage point |
| Discretionary spending | +/- 5.0 percent |
| Social Security spending | +/- 3.0 percent |
| Health care excess cost growth rate | +/- 1.0 percentage point |
| Gross domestic product growth rate | +/- 0.5 percentage point |

Source: GAO. | GAO-23-106201

Limitations

This simulation is not a prediction or forecast of the future, but rather scenarios of outcomes given specific assumptions. Forward-looking, long-term projections rely heavily on assumptions and projections relating to future events, conditions, and trends. For example, spending projections do not fully account for costs that arise from fiscal exposures. In addition, future policy decisions about federal spending, revenues, the federal role in the delivery of health care, and other areas would change the outcomes.

70 For complete results of our sensitivity analyses, see our interactive tool at https://www.gao.gov/americas-fiscal-future.
APPENDIX III

GAO Contacts and Staff Acknowledgments

GAO Contacts

Jeff Arkin, (202) 512-6806 or arkinj@gao.gov
Robert F. Dacey, (202) 512-3406, daceyr@gao.gov
Dawn B. Simpson, (202) 512-3406, simpsondb@gao.gov

Staff Acknowledgments

In addition to the contacts named above, Barbara Lancaster (Assistant Director), Shelby Kain (Analyst-in-Charge), Robert Gebhart, Krista Loose, Meredith Moles, Monique Nasrallah, Silda Nikaj, Nathan Parmeter, Farrah Stone, and Alicia White made key contributions to this report.

Additional assistance in their areas of expertise was provided by Claudia Becker, Roger Bradley, Michael Collins, Heather Dunahoo, Lauren Fassler, Gabrielle Fagan, Richard Geiger, Michael Hoffman, Aaron Holling, Susan J. Irving, Joseph O'Neill, Laura Pacheco, Bryan Sakakeeny, Joseph Silvestri, Andrew J. Stephens, Joseph Thompson, Frank Todisco, Matthew Valenta, Steve Westley, and Mercedes Wilson-Barthes.
GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. You can also subscribe to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, https://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube.

Subscribe to our RSS Feeds or Email Updates. Listen to our Podcasts.


To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: https://www.gao.gov/about/what-gao-does/fraudnet

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800, U.S. Government Accountability Office, 441 G Street NW, Room 7149, Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707, U.S. Government Accountability Office, 441 G Street NW, Room 7814, Washington, DC 20548
APPENDIX IV
Additional Information

Image Sources
This section contains credit and copyright information for images and graphics in this product, as appropriate, when that information was not listed below the image or graphic.

cover Daniel/stock.adobe.com
page ii alexkich/stock.adobe.com
page 4 LunaKate/stock.adobe.com
page 6 jetcityimage/stock.adobe.com
page 7 VideoFlow/stock.adobe.com
page 9 William W Potter/stock.adobe.com
page 10 Andy Dean/stock.adobe.com
page 17 Yingyaipumi/stock.adobe.com
page 24 doganmesut/stock.adobe.com
page 29 Eakrin/stock.adobe.com