



December 2020

# THE NATION'S FISCAL HEALTH

## Information on the Spending and Revenue Implications of Potential Debt Targets

Accessible Version

# GAO Highlights

Highlights of [GAO-21-211](#), a report to congressional requesters

## Why GAO Did This Study

Even before the fiscal and economic effects resulting from COVID-19, an imbalance between federal revenue and spending that is built into current law and policy was contributing to the growing federal debt. The Congressional Budget Office projects that by 2023 federal debt held by the public will reach 107 percent of GDP, its highest point in U.S. history. This situation—in which federal debt grows faster than GDP—means that our nation is on an unsustainable fiscal path.

GAO was asked to review issues related to fiscal rules and targets and the federal fiscal condition. In response to this request, in September 2020, GAO issued a report ([GAO-20-561](#)) on key considerations for the design, implementation, and enforcement of fiscal rules and targets. This report supplements that work and describes how changes in assumptions of future spending and revenue affect the federal government's projected fiscal condition.

GAO updated its long-term simulations of federal revenue and spending to (1) analyze six potential debt-to-GDP targets and (2) measure the fiscal gap—the policy change needed to reach a given debt-to-GDP fiscal target from the start to the end of 30-years. GAO also analyzed how changes in key variables affected the debt-to-GDP targets and the fiscal gap.

View [GAO-21-211](#). For more information, contact Jeff Arkin at (202) 512-6806 or [arkinj@gao.gov](mailto:arkinj@gao.gov).

December 2020

## THE NATION'S FISCAL HEALTH

### Information on the Spending and Revenue Implications of Potential Debt Targets

## What GAO Found

The COVID-19 pandemic has necessitated major federal spending to respond to the national public health emergency and resulting economic turmoil. This response and the severe economic contraction from the pandemic have led to increased federal debt. Once the COVID-19 pandemic abates and the economy has substantially recovered, Congress and the administration will need to address the federal government's fiscal challenges. To help change the long-term fiscal path, in September 2020 GAO recommended that Congress consider establishing a long-term fiscal plan that includes fiscal rules and targets, such as a debt-to-gross domestic product (GDP) target.

In this report, GAO analyzed the changes in spending and revenue needed to reach six potential debt-to-GDP targets at the end of a 30-year period (2020-2049). To reach any of the targets, policymakers will need to cut program spending, increase revenue, or, most likely, a combination of both (see table).

#### Illustrative Examples of Changes Needed to Achieve Debt-to-GDP Targets

Debt target, percent of GDP (end of 30 years)	Spending and revenue: total change over 30 years	Program spending alone: Immediate and permanent decrease needed in annual projected program spending <sup>a</sup>	Revenue alone: Immediate and permanent increase needed in annual projected revenue
		Percent	Percent
Percent	Dollars, trillions	Percent	Percent
140	25.4	13.8	18.5
120	31.2	16.9	22.8
100	37	20	27
80	42.8	23.1	31.2
60	48.5	26.3	35.4
0 (paying off all debt)	65.9	35.7	48.1

Source: GAO simulation. | [GAO-21-211](#).

Note: The simulation used for this analysis generally reflect historical trends, such as the extension of tax provisions scheduled to expire. It does not account for potential macroeconomic effects of fiscal policy changes over time.

<sup>a</sup>Program spending consists of all spending except interest payments on debt held by the public.

When considering the spending and revenue changes needed to achieve various debt-to-GDP targets, policymakers may also consider how changes in assumptions about key variables—such as discretionary spending, revenue, and GDP—affect these fiscal outcomes. For example, if GDP growth is greater than expected, policymakers may have to make smaller spending cuts or revenue increases to reach a selected debt-to-GDP target than those that would be needed based on GAO's standard assumptions.

GAO created an interactive web tool accompanying this report to allow users to enter different assumptions for each of these variables. This tool illustrates how these changes would affect the different debt-to-GDP targets over time, as well as the changes in spending and revenue needed to achieve various targets. This tool can be found at <https://www.gao.gov/products/GAO-21-211>.

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## Abbreviations

CBO	Congressional Budget Office
COVID-19	Coronavirus Disease 2019
GDP	gross domestic product

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December 15, 2020

The Honorable Mike Enzi  
Chairman  
Committee on the Budget  
United States Senate

The Honorable Steve Womack  
Ranking Member  
Committee on the Budget  
House of Representatives

By 2023, federal debt held by the public is projected to reach 107 percent of gross domestic product (GDP)—its highest point in U.S. history—according to the Congressional Budget Office (CBO). This projected rise in debt would continue a trend that has been in place for some time. The federal government last ran a budget surplus in fiscal year 2001. From that time through fiscal year 2020, debt held by the public increased from \$3.3 trillion to \$26.9 trillion, or from about 32 percent of GDP to 100 percent of GDP.<sup>1</sup> This situation—in which federal debt grows faster than GDP—means that our federal government is on an unsustainable fiscal path.

The Coronavirus Disease 2019 (COVID-19) pandemic has necessitated major federal spending to respond to the national public health emergency and resulting economic turmoil. This response combined with the severe economic contraction from the pandemic has generated a substantial increase in federal debt. Short-term fiscal decisions have appropriately focused on protecting federal health and the economy. However, once the current crisis abates, we have reported that Congress and the administration will need to take action to address the federal government’s underlying fiscal challenges.<sup>2</sup>

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<sup>1</sup>We are using debt held by the public throughout this report. Debt held by the public is the amount of money that the federal government owes to its investors. Intragovernmental debt is the amount of money the federal government owes to itself. Together, these forms of debt comprise total federal debt.

<sup>2</sup>GAO, *The Nation’s Fiscal Health: A Long-Term Plan Is Needed for Fiscal Sustainability*, [GAO-21-161T](#) (Washington, D.C.: Oct. 7, 2020).

Since 2017, we have reported on the need for a broad plan to put the federal government on a more sustainable long-term fiscal path.<sup>3</sup> To help change the long-term path, in September 2020 we recommended that Congress consider establishing a long-term fiscal plan that includes fiscal rules and targets, such as a debt-to-GDP target.<sup>4</sup> We have also reported that, to address the federal government's fiscal challenges, policymakers will need to consider policy changes to the entire range of federal activities: both revenue (including tax expenditures) and program spending (including entitlement programs, other mandatory spending, and discretionary spending).<sup>5</sup> Measuring the degree to which each of these activities affects the long-term fiscal outlook can help policymakers as they weigh the difficult decisions they would need to make to establish and comply with the fiscal rules and targets.

#### Fiscal Gap

For the purposes of this report, the fiscal gap measures the policy change needed to reach a given debt-to-gross domestic product fiscal target from the start to the end of 30 years.

Source: GAO analysis. | GAO-21-211

You asked us to review issues related to fiscal rules and targets and the federal fiscal condition. In response to this request, in September 2020, we issued a report on key considerations for the design, implementation, and enforcement of fiscal rules and targets.<sup>6</sup> This report supplements that work and describes how changes in assumptions of future spending and revenue affect the federal government's projected fiscal condition.

To do this work, we used our long-term simulations of federal revenue and spending to analyze the debt-to-GDP ratio at the end of a 30-year

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<sup>3</sup>GAO, *The Nation's Fiscal Health: Action Is Needed to Address the Federal Government's Fiscal Future*, [GAO-20-403SP](#) (Washington, D.C.: Mar. 12, 2020); *The Nation's Fiscal Health: Action Is Needed to Address the Federal Government's Fiscal Future*, [GAO-19-314SP](#) (Washington, D.C.: Apr. 10, 2019); *The Nation's Fiscal Health: Action Is Needed to Address the Federal Government's Fiscal Future*, [GAO-18-299SP](#) (Washington, D.C.: Jun. 21, 2018); and *The Nation's Fiscal Health: Action Is Needed to Address the Federal Government's Fiscal Future*, [GAO-17-237SP](#) (Washington, D.C.: Jan. 17, 2017).

<sup>4</sup>GAO, *The Nation's Fiscal Health: Effective Use of Fiscal Rules and Targets*, [GAO-20-561](#) (Washington, D.C.: Sept. 23, 2020). According to the International Monetary Fund, a fiscal rule is a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates, such as expenditures, revenue, or the ratio of debt to GDP. Fiscal targets are the interim benchmarks that may be established within the parameters set by fiscal rules.

<sup>5</sup>Tax expenditures, as defined by law, are 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).

<sup>6</sup>[GAO-20-561](#).

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period (2020-2049) and measure the fiscal gap.<sup>7</sup> These simulations use the most recent data available as of October 2020. We analyzed the fiscal gap for six potential debt-to-GDP targets:

- 0 percent (i.e., paying off the debt),
- 60 percent,
- 80 percent,
- 100 percent,
- 120 percent, and
- 140 percent.

We selected these targets to provide a range of illustrative scenarios, both higher and lower than the debt-to-GDP level at the end of fiscal year 2020 (100 percent), as well as 0 percent to illustrate the changes needed to pay off the debt.<sup>8</sup>

We also analyzed how changes in the assumptions we used for key variables in our simulations affect the debt-to-GDP ratio and the fiscal gap. We selected key variables that can significantly affect both debt and GDP. For each variable, we analyzed the variation from our standard assumptions that we believe to be a reasonable degree of uncertainty in the future projected value of the key variable.<sup>9</sup> Specifically, we analyzed what the debt-to-GDP ratio and fiscal gap would look like if:

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<sup>7</sup>Our long-term simulations of federal revenue and spending include two scenarios: the baseline extended simulation and the alternative simulation. We are using the alternative simulation for this report. The alternative simulation generally assumes historical and current policy conditions will continue in the future. For example, it assumes some tax provisions do not expire as scheduled under current law, the Patient Protection and Affordable Care Act and Medicare Access and CHIP Reauthorization Act of 2015 provisions to control health care cost growth are not sustained as they would be under current law, and, in the long term, revenue and discretionary spending return to their historical averages as shares of GDP. In contrast, our extended baseline simulation generally assumes current law will continue into the future.

<sup>8</sup>A 0 percent debt-to-GDP ratio means that debt held by the public is paid off entirely at the end of the 30-year period.

<sup>9</sup>We analyzed changes to these variables in isolation, excluding any impact of the changed variable on other elements of the simulation.

- discretionary spending were 5 percent higher or lower than our assumptions,
- the GDP growth rate were 0.5 percentage points higher or lower,
- health care excess cost growth were 1 percent higher or lower,<sup>10</sup>
- interest rates were 1 percentage point higher or lower,
- revenue were 5 percent higher or lower, or
- Social Security spending were 3 percent higher or lower.

Detailed information on our scope and methodology including the standard assumptions used in our simulations is included in appendix I.

We conducted our work from July 2020 to December 2020 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 to 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.

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## Background

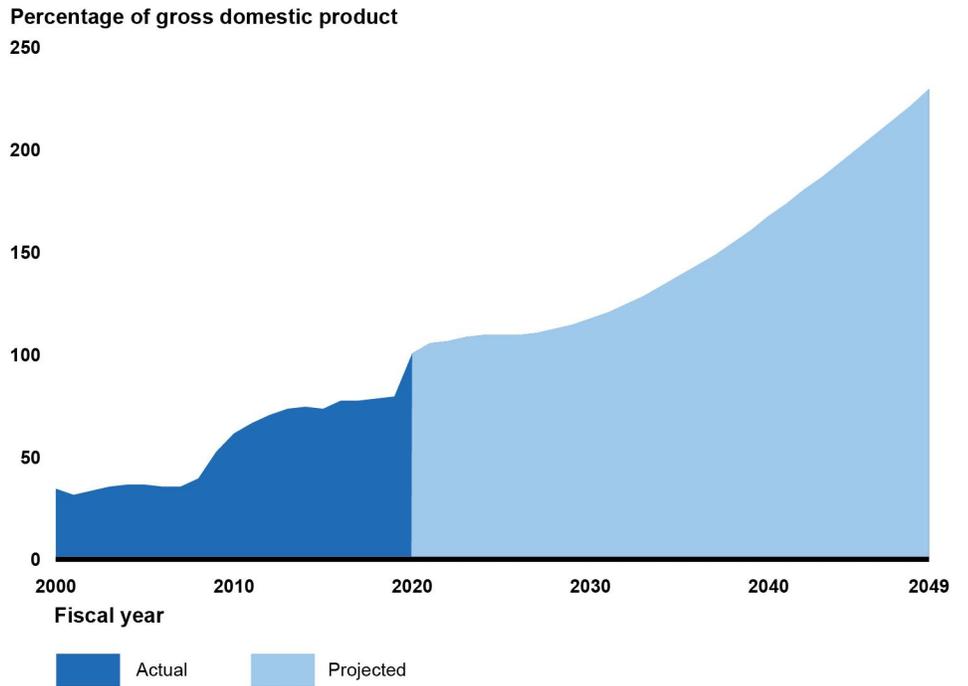
As we have previously reported, the federal government is on an unsustainable long-term fiscal path caused by an imbalance between revenue and spending that is built into current law and policy.<sup>11</sup> This imbalance has led to the growing debt, and is expected to continue to do so. In our simulations, absent any action, debt held by the public would increase from 100 percent of GDP in 2020 to 229 percent of GDP in 2049 (see fig. 1).

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<sup>10</sup>Excess cost growth refers to the number of percentage points by which the annual rate of growth of spending on Medicare, Medicaid, or health care generally (per beneficiary or per capita) exceeded the growth of nominal gross domestic product (per capita).

<sup>11</sup>[GAO-20-403SP](#).

**Figure 1: Federal Debt Held by the Public, Fiscal Years 2000-2049**



Source: GAO analysis of Congressional Budget Office data and GAO's alternative simulation data. | GAO-21-211

**Data table for Figure 1: Federal Debt Held by the Public, Fiscal Years 2000-2049**

Fiscal year	Percentage of gross domestic product
2000	34
2001	31
2002	33
2003	35
2004	36
2005	36
2006	35
2007	35
2008	39
2009	52
2010	61
2011	66
2012	70
2013	73
2014	74

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<b>Fiscal year</b>	<b>Percentage of gross domestic product</b>
2015	73
2016	77
2017	77
2018	78
2019	79
2020	100
2021	105
2022	106
2023	108
2024	109
2025	109
2026	109
2027	110
2028	112
2029	114
2030	117
2031	120
2032	124
2033	128
2034	133
2035	138
2036	143
2037	148
2038	154
2039	160
2040	167
2041	173
2042	180
2043	186
2044	193
2045	200
2046	207
2047	214
2048	221
2049	229

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In September 2020, we reported on key considerations to help Congress should it choose to adopt a new fiscal rule or target for the federal

government. We outlined seven key considerations related to the design, implementation, and enforcement of fiscal rules and targets, such as alignment with fiscal policy goals and objectives and flexibility to address emerging issues, such as national emergencies like COVID-19.<sup>12</sup>

Fiscal rules in the form of laws that constrain and enforce fiscal policy decisions have been enacted previously.<sup>13</sup> However, the federal government experienced challenges in designing fiscal rules that were achievable and effective in addressing the nation's growing debt because the rules were not designed to encompass the entire range of factors that contribute to the federal government's fiscal imbalance.<sup>14</sup>

The Organization for Economic Co-Operation and Development has reported that debt-to-GDP targets can serve as a fiscal policy anchor for a country's government to help ensure the sustainability of fiscal policy and maintain sufficient policy room for the government to cope with adverse shocks.<sup>15</sup> In addition, the International Monetary Fund has reported that well-designed fiscal rule frameworks should include a debt target to set an anchor for fiscal policy, as well as a small number of operational rules (such as rules that guide spending or revenues) that provide short term guidance to policymakers.<sup>16</sup> The operational rules should be calibrated to be consistent with the debt target.

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<sup>12</sup>[GAO-20-561](#).

<sup>13</sup>Examples of fiscal rules previously enacted into law include Statutory Pay-As-You-Go Act of 2010, Pub. L. No. 111-139, 124 Stat. 8 (2010) and the Budget Control Act of 2011, Pub. L. No. 112-25, 125 Stat. 240 (2011).

<sup>14</sup>For more information on the federal government's experience with fiscal rules, see [GAO-20-561](#) and *The Nation's Fiscal Health: Actions Needed to Achieve Long-Term Fiscal Sustainability*, [GAO-19-611T](#) (Washington, D.C.: Jun. 26, 2019).

<sup>15</sup>Organization for Economic Co-Operation and Development, *Prudent Debt Targets and Fiscal Frameworks*, OECD Economic Policy Paper No. 15 (July 2015).

<sup>16</sup>International Monetary Fund Fiscal Affairs Department, *How to Calibrate Fiscal Rules: A Primer* (Washington, D.C.: March 2018).

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## Key Variables Affect the Fiscal Policy Actions Needed to Achieve Debt-to-GDP Targets

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### Spending and Revenue Changes Needed to Achieve Selected Debt-to-GDP Targets

To reach any of the six potential debt-to-GDP targets we analyzed—including targets above the 100 percent debt-to-GDP level at the end of fiscal year 2020—policymakers will need to cut program spending (i.e., spending other than interest payments on debt held by the public), increase revenue, or both. Policymakers would most likely need to use a combination of both spending and revenue changes to achieve fiscal sustainability.<sup>17</sup>

Our analysis shows the total changes to spending and revenue over 30 years (2020-2049), in dollars, needed to reach these potential debt-to-GDP targets, as shown in table 1. We also analyzed the percentage of program spending reductions or revenue increases alone that would be needed to reach these targets. For example, if policymakers choose to achieve a debt-to-GDP target of 100 percent in 30 years, they would need to make program spending cuts, revenue increases, or a combination of both totaling about \$37 trillion—in present value terms—over this period. This change could be achieved by immediately and permanently either cutting annual projected program spending by 20 percent or increasing annual projected revenue by 27 percent. Choosing to achieve this change through a combination approach would entail some lesser percentage decrease in program spending combined with some lesser percentage increase in revenue. Different debt-to-GDP targets that policymakers choose would require different changes to annual projected spending or revenue.

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<sup>17</sup>The changes shown in our analysis would need to be made immediately and permanently to reach the specified target at the end of the 30-year period. Percentage changes to spending and revenue represent the changes that would need to be made each year, compared to what spending and revenue would otherwise be according to our simulations. Total change in dollars represents the present value of the cumulative amount of spending cuts and revenue increases over the 30-year period. Present value is the worth of a future stream of returns or costs in terms of money paid immediately.

**Table 1: Illustrative Examples of Changes Needed to Achieve Debt-to-Gross Domestic Product Targets**

The table shows the magnitude of actions needed to achieve certain levels of debt held by the public as a percentage of gross domestic product (GDP) over a 30-year period (2020-2049). While we simulate the percentage of changes to spending and revenue alone, a combination of both spending and revenue changes would most likely be needed to achieve fiscal sustainability.

Debt target, percent of GDP (end of 30 years)	Spending and revenue: total change over 30 years <sup>a</sup>	Program spending alone: annual projected decrease needed <sup>b,c</sup>	Revenue alone: annual projected increase needed <sup>c</sup>
Percent	Dollars in trillions	Percent	Percent
140	25.4	13.8	18.5
120	31.2	16.9	22.8
100	37	20	27
80	42.8	23.1	31.2
60	48.5	26.3	35.4
0 <sup>d</sup>	65.9	35.7	48.1

Source: GAO's alternative simulation. | GAO-21-211.

Note: Our long-term simulations of federal revenue and spending include two scenarios: the baseline extended simulation and the alternative simulation. We are using the alternative simulation for this analysis. The alternative simulation generally reflects historical trends, such as the extension of tax provisions scheduled to expire. It does not account for potential macroeconomic effects of fiscal policy changes over time.

<sup>a</sup>Represents the present value of spending and revenue changes combined that are needed to meet the specified debt-to-GDP target at the end of 30 years.

<sup>b</sup>Program spending consists of all spending except interest payments on debt held by the public.

<sup>c</sup>Represents the immediate and permanent change needed to meet the specified debt-to-GDP target at the end of 30 years.

<sup>d</sup>A 0 percent debt-to-GDP ratio means that debt held by the public is paid off entirely at the end of the 30-year period.

## Changes in Assumptions about Key Variables

As policymakers consider the spending and revenue changes needed to achieve various debt-to-GDP targets, it can be helpful to consider how changes in assumptions about key variables would affect these fiscal outcomes. These variables are (1) discretionary spending, (2) the GDP growth rate, (3) health care excess cost growth, (4) interest rates, (5) revenue, and (6) Social Security spending.

We have created an interactive web tool to allow users to enter different assumptions for each of these variables. This tool illustrates how these changes would affect the different debt-to-GDP targets over time, as well as the changes in spending and revenue needed to achieve various

targets. This tool can be found at <https://www.gao.gov/products/GAO-21-211>.<sup>18</sup>

The text box below provides one illustrative example of how an increase in projected GDP would affect projected fiscal outcomes and the changes needed to achieve a 100 percent debt-to-GDP target at the end of 30 years, compared to our standard assumptions.<sup>19</sup> This analysis can be repeated using this interactive tool with higher- or lower-than expected assumptions for any of the variables and the different debt-to-GDP targets (140, 120, 100, 80, 60, or 0 percent) we examined. We are not endorsing any particular debt-to-GDP target or fiscal policy actions.

**Illustrative Example: Increasing the Projected Gross Domestic Product Growth Rate by 0.5 Percentage Points**

Our simulations of the future debt-to-gross domestic product (GDP) ratio and the fiscal gap rely on assumptions about key variables for revenue and spending that affect the federal fiscal condition over a 30-year period (2020-2049). Analyzing how changes to the assumptions about any particular variable affect fiscal outcomes can help policymakers determine how and where changes would have the greatest impact.

**What debt-to-GDP ratio would we expect if the GDP growth rate were 0.5 percentage points higher than we assumed?**

- The debt-to-GDP ratio would be 191 percent at the end of fiscal year 2049, compared to 229 percent under our standard assumptions.<sup>a</sup>

**What changes in spending or revenue would be needed to achieve a 100 percent debt-to-GDP target if the GDP growth rate were 0.5 percentage points higher than we assumed?**

- Policymakers would need to make a combination of spending cuts and revenue increases totaling a present value of \$30.2 trillion over this period, compared to \$37 trillion under our standard assumptions.<sup>b</sup>
- The target could be achieved by immediately and permanently cutting annual projected program spending by 15.5 percent, compared to 20 percent under our standard assumptions.
- Alternatively, the target could be achieved by immediately and permanently increasing annual projected revenue by 20.3 percent, compared to 27 percent under our standard assumptions.
- A combination of program spending reductions and revenue increases would most likely be needed.

Source: GAO analysis. | GAO-21-211.

<sup>18</sup>We plan to periodically update this tool on our *America's Fiscal Future* website, [https://www.gao.gov/americas\\_fiscal\\_future](https://www.gao.gov/americas_fiscal_future).

<sup>19</sup>See appendix I for information on our scope and methodology and the standard assumptions in our simulations.

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<sup>a</sup>For more information on our standard assumptions, see appendix I.

<sup>b</sup>Present value is the worth of a future stream of returns or costs in terms of money paid immediately.

We are sending copies of this report to the Director of the Office of Management and Budget and the Secretary of the Treasury, as well as cognizant congressional committees and other interested parties. This report will be available at no charge on our website at <https://www.gao.gov>.

If you or your staff has any questions about this report, please contact Jeff Arkin at 202-512-6806 or [arkinj@gao.gov](mailto:arkinj@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of our report. Key contributors to this report are listed in appendix II.

A handwritten signature in black ink, appearing to read "Jeff Arkin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jeff Arkin  
Acting Director  
Strategic Issues

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## Appendix I: Objectives, Scope, and Methodology

Our objective was to describe how changes in assumptions of future spending and revenue affect the federal government's projected fiscal condition.

To do this work, we used our long-term simulations of federal revenue and spending to analyze the debt-to-gross domestic product (GDP) ratio at the end of a 30-year period (2020-2049), and measure the fiscal gap.<sup>1</sup> We analyzed the fiscal gap for six potential debt-to-GDP ratio targets:

- 0 percent (i.e., paying off the debt),
- 60 percent,
- 80 percent,
- 100 percent,
- 120 percent, and
- 140 percent.

We selected these targets to provide a range of illustrative scenarios. Specifically, we selected the 100 percent target to show the policy change needed to maintain the debt-to-GDP ratio at its level at the end of fiscal year 2020. We selected 120 percent and 140 percent to show the policy changes needed to maintain debt at incrementally higher levels at the end of a 30-year period. In these scenarios, debt would be higher than the fiscal year 2020 level, but significantly lower than it otherwise would be absent any action (229 percent at the end of 2049), according to our simulations. Similarly, we selected 60 percent and 80 percent to show the policy changes needed to reduce debt from the fiscal year 2020 level at the end of a 30-year period. Finally, we selected 0 percent to illustrate the changes that would be needed to pay off the debt. While policymakers would have a difficult time eliminating debt held by the public at the end of

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<sup>1</sup>For the purposes of this report, the fiscal gap measures the policy change needed for the government to reach a given debt-to-GDP fiscal target from the start to the end of 30 years.

30 years, this scenario provides context for the other debt-to-GDP targets included in our analysis.

Our long-term simulations of federal revenue and spending include two scenarios: the baseline extended simulation, and the alternative simulation. To conduct these simulations, we primarily used data from the Congressional Budget Office (CBO) and the Medicare and Social Security Trustees. These simulations use the most recent data available as of October 2020. For this report, we used the alternative simulation, which generally assumes historical and current policy conditions will continue in the future.<sup>2</sup> We also assume that Social Security and Medicare spending continue as scheduled, even after the projected depletions of the associated trust funds.<sup>3</sup>

We also analyzed how higher or lower changes in the assumptions used for key variables in our simulations affect the debt-to-GDP ratio and the fiscal gap. We selected key variables that can significantly affect both debt and GDP. These variables, and our standard assumptions about them, are shown in table 2.

**Table 2: Standard Assumptions about Key Variables under GAO’s Alternative Simulation**

Variable	Assumptions
Discretionary spending	The Congressional Budget Office’s (CBO) September 2020 baseline estimates through 2030. <sup>a</sup> After 2030, phases to 7.2 percent of gross domestic product (GDP) (the 20-year historical average, 2000-2019).
GDP growth rate	CBO’s baseline estimates through 2030. After 2030, GDP grows at a rate consistent with the 2020 Social Security Trustees’ intermediate projections.
Health care excess cost growth <sup>b</sup>	Calculated based on the Centers for Medicare & Medicaid Services’ projections under current law. Excess cost growth averages 0.5 percentage points over the long term.
Interest rates	Consistent with CBO’s baseline estimates through 2030. After 2030, phases to CBO’s long-term nominal interest rate projection.

<sup>2</sup>For example, the alternative simulation assumes some tax provisions do not expire as scheduled under current law, the Patient Protection and Affordable Care Act and Medicare Access and CHIP Reauthorization Act of 2015 provisions to control health care cost growth are not sustained as they would be under current law, and, in the long term, revenue and discretionary spending return to their historical averages as shares of GDP. In contrast, our extended baseline simulation generally uses CBO’s estimates for the first 11 years—which generally reflect current law—and generally assumes that current law continues into the future.

<sup>3</sup>CBO projects that the Medicare Hospital Insurance Trust Fund will be depleted in 2024, and the Social Security Old-Age and Survivors Insurance Trust Fund will be depleted in 2031.

**Appendix I: Objectives, Scope, and Methodology**

<b>Variable</b>	<b>Assumptions</b>
Revenue	CBO's baseline estimates through 2030, adjusted to assume certain expiring tax provisions are extended. After 2030, phases to 17.4 percent of GDP (the 50-year historical average, 1970-2019).
Social Security spending	CBO's baseline estimates through 2030. After 2030, phases into the 2020 Social Security Trustees' intermediate projections.

Source: GAO. | GAO-21-211

<sup>a</sup>CBO's baseline estimates generally reflect current law. For example, CBO assumes current tax provisions will generally remain unchanged, tax provisions will expire as scheduled, and provisions of the Patient Protection and Affordable Care Act and Medicare Access and CHIP Reauthorization Act of 2015 designed to control health care cost growth will be achieved and sustained over the long term. CHIP stands for the Children's Health Insurance Program.

<sup>b</sup>Excess cost growth refers to the number of percentage points by which the annual rate of growth of spending on health care per capita exceeded the growth of nominal gross domestic product per capita.

For each variable, we considered deviations from these standard assumptions by a degree that represents what we believe to be a reasonable level of uncertainty in the future projected value of the key variable.<sup>4</sup> Specifically, we analyzed what the debt-to-GDP ratio and measures needed to reach the fiscal targets would look like if:

- discretionary spending were 5 percent higher or lower than our assumptions,
- the GDP growth rate were 0.5 percentage points higher or lower,
- health care excess cost growth were 1 percent higher or lower,
- interest rates were 1 percentage point higher or lower,
- revenue were 5 percent higher or lower, or
- Social Security spending were 3 percent higher or lower.

We conducted our work from July 2020 to December 2020 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 to 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.

<sup>4</sup>We analyzed changes to these variables in isolation, excluding any impact of the changed variable on other elements of the simulation. When each variable is adjusted, we re-calculate the fiscal gap to find the new change in spending or revenue that is required to achieve a fiscal target.

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## Appendix II: GAO Contact and Staff Acknowledgments

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### GAO Contact

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