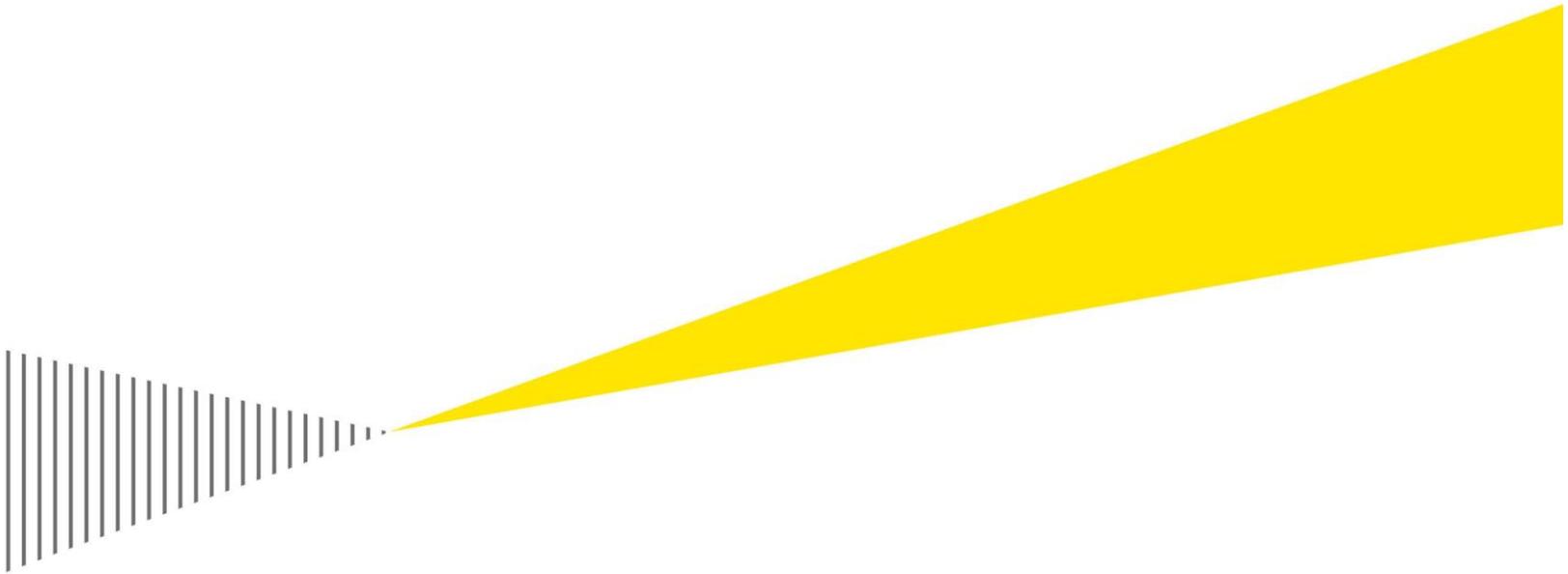


Analyzing the US government's fiscal gap: An update

Prepared for the Peter G. Peterson Foundation

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The federal government's fiscal position will become increasingly precarious over the next several decades, which could have significant negative consequences for the US economy. The Congressional Budget Office (CBO) projects that deficits will climb from \$590 billion in 2016 to \$1.2 trillion in 2026. And, after 2026, the federal deficit and federal debt held by the public is projected to grow to unsustainable levels.

Although projections so far out into the future can be uncertain, this report and the CBO projections on which it is largely based continue to suggest a fiscal imbalance that worsens over time and results in a significant "fiscal gap". Increasing annual deficits and resulting debt accumulation could negatively affect the US economy in the following ways:

► **Decreased national saving and future income.**

Increased federal debt would crowd out private investment, leading to reduced labor productivity and real wages, which in turn, could reduce individuals' ability to earn and save.

► **Growing pressure to increase taxes or cut spending.** Since rising federal debt would result in higher interest payments over the long term, policymakers would have fewer resources for other programs, face greater pressure to raise revenues, or both. The longer action on the debt was delayed, the larger those required spending cuts or revenue increases would have to be.

► **Reduced ability to respond to domestic and international events.** Unexpected events such as recessions or foreign conflicts often have a significant impact on federal government spending and revenues. A long-term increase in federal debt could reduce the federal government's ability to respond in such situations.

► **Greater chance of a fiscal crisis.** A loss of investor confidence in the United States' ability to pay its debt could lead to a fiscal crisis in which the federal government is unable to fully fund its activities. However, it is difficult to predict the point at which such a fiscal crisis might occur.

Why analyze the fiscal gap?

This report uses the fiscal gap to illustrate the fiscal outlook and the sustainability of the US government's finances. The fiscal gap, a measure of the extent to which the government's projected commitments exceed its projected resources, can shed light on the fiscal outlook and sustainability of the US government's finances. It can also be used to estimate the size of the policy changes needed to put the budget on a more sustainable course.

The fiscal gap is expressed in discounted present values, which convert projected paths of future deficits (excluding interest), current government debt, and an assumed level of future

What is the fiscal gap?

The "fiscal gap" measures the extent to which the government's commitments (e.g., spending, debt obligations) exceed its resources (e.g., revenues) over a period of time. It can also be used to estimate how much noninterest spending must decrease or how much revenue must increase for the federal government to reach an assumed debt-to-GDP ratio by the end of a time period.

government debt into an equivalent, lump-sum amount today. The fiscal gap depends on the time horizon of the projection, and this report examines three time periods: 25 years, 50 years, and 75 years, using different debt-to-GDP ratios. Analyzing several time periods illustrates how the fiscal gap worsens as federal deficits and debt grow relative to the size of the economy over time. Using different debt-to-GDP ratios acknowledges that the fiscal gap partly reflects long-term spending and revenue policy choices.

How large is the US fiscal gap?

The US fiscal gap is large, but fixable. Under the assumption that debt is reduced to its historical share of GDP (39%) by the end of the projection period, the fiscal gap under current law (in 2016 dollars) is estimated to be:

- ▶ \$17 trillion over 25 years (\$52,300 per person)
- ▶ \$35 trillion over 50 years (\$105,400 per person)
- ▶ \$54 trillion over 75 years (\$165,300 per person)

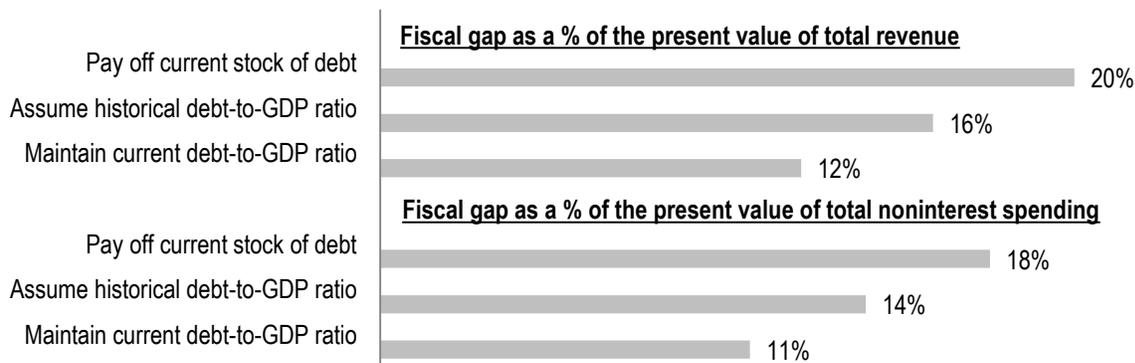
To put these numbers in perspective, US per capita income was \$57,000 in 2016. Fiscal gap estimates under alternative debt-to-GDP ratios are presented in Appendix A.

How can the United States close its fiscal gap?

Closing the fiscal gap would require significant changes in budget policy. The United States would need to do one or a combination of the following to reduce its debt to a historical share of GDP (39%) within 50 years (see Figure 1):

- ▶ *Increase revenues only:* If lawmakers relied only on federal revenues to close the fiscal gap, revenues would need to be permanently increased 16% relative to current law.
- ▶ *Decrease spending only:* If lawmakers relied only on spending cuts to close the fiscal gap, spending (excluding interest) would need to be permanently reduced by 14% relative to current law.

Figure 1. 50-year fiscal gap relative to present-value total revenue and noninterest spending (in percent)



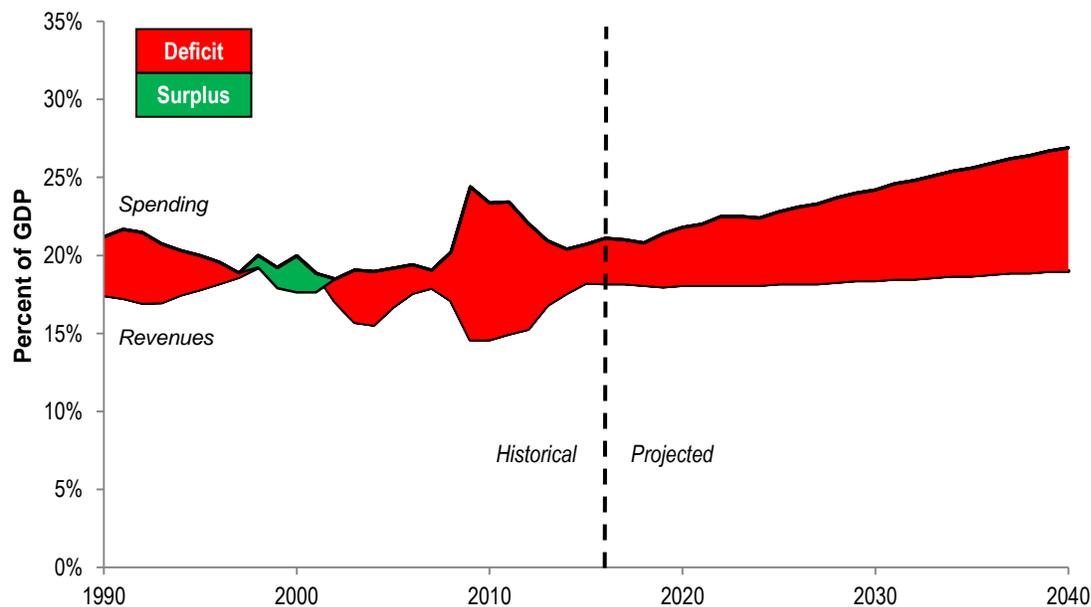
Note: The fiscal gap is calculated as: (1) the present value of noninterest outlays plus current debt, less (2) the present value of revenues plus the present value of the assumed stock of debt. The discount rate used is the interest

rate on all federal debt held by the public as projected by the CBO. The historical average debt level (39%) is the average debt-to-GDP ratio between 1966 and 2015.
 Source: CBO, *The 2016 Long-term Budget Outlook*, July 2016; EY analysis.

Current and projected federal budget

The fiscal gap is largely driven by the current and projected federal budget. Figure 2 summarizes government spending and revenues from 1990 through 2040.

Figure 2. US government spending and revenues, historical and projected, 1990-2040



Source: CBO, *Updated Budget Projections: 2016 to 2026*, March 2016; CBO, *The 2016 Long-term Budget Outlook*, July 2016; EY analysis.

Revenues

The federal government relies primarily on income taxes to raise revenues. More than 90% of all federal revenues are from income taxes, including individual income taxes (\$1.6 trillion), payroll taxes (\$1.1 trillion), and corporate income taxes (\$0.3 trillion). The remainder (\$0.3 trillion) is collected from miscellaneous revenue sources, including excise taxes, customs duties, and estate and gift taxes.

Spending

The federal government's broad spending categories are: (1) discretionary spending, (2) mandatory spending, and (3) net interest spending. Discretionary spending refers to programs that are typically funded annually through the appropriations process. Mandatory spending refers to standing programs authorized under existing law (that do not need to be approved

annually). Net interest spending predominantly reflects interest payments to holders of federal debt issued to the public. Additional detail on the spending categories is provided below:

- ▶ **Discretionary spending (\$1.2 trillion in 2016).** Discretionary spending includes a variety of defense, domestic, and international programs. This category is split approximately evenly between discretionary defense spending and discretionary nondefense spending.
- ▶ **Mandatory spending (\$2.4 trillion in 2016).** Mandatory spending includes entitlement spending on the major healthcare programs, Social Security, and other programs, as well as the refundable portion of several credits administered through the federal tax code:
 - *Major healthcare programs (\$1.0 trillion in 2016).* The major healthcare programs include: (1) Medicare (\$600 billion net of \$100 billion in Medicare premiums), (2) Medicaid (\$350 billion), (3) health insurance exchange subsidies and related spending (\$40 billion), and (4) the Children’s Health Insurance Program (\$10 billion).
 - *Social Security (\$900 billion in 2016).* Social Security consists of two parts: (1) Old-Age and Survivors Insurance and (2) Disability Insurance.
 - *Other mandatory spending (\$500 billion in 2016).* This includes mandatory spending unrelated to major healthcare programs and Social Security such as the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance to Needy Families (TANF), and the refundable portions of the earned income tax credit (EITC) and the child tax credit.
- ▶ **Net interest (\$0.2 trillion in 2015).** Net interest spending is predominantly interest payments on federal debt held by the public.

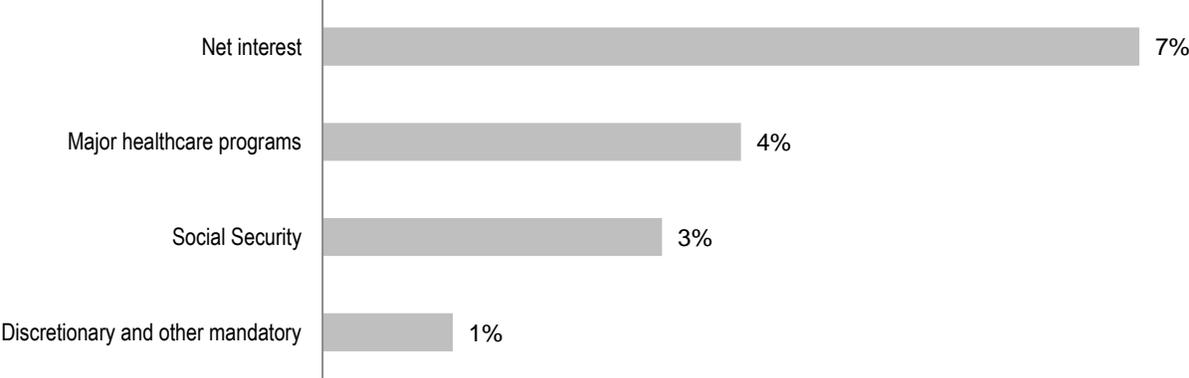
Changes in spending over time

Figure 3 summarizes the average annual growth of spending over 25 years, by major spending category. While the actual projected annual growth rates vary by year, examining the average annual growth rate more clearly depicts spending category growth over the 25-year time period.

Net interest is the fastest-growing category of the budget reflecting both rising interest rates and rising deficits in coming years. By 2040, debt held by the public is projected to increase from its current level of 75% of GDP to 122% of GDP under current law. These projections account for macroeconomic feedback. CBO projects that if those macroeconomic effects were excluded, debt would climb to only 116% of GDP by 2040.

Total spending is projected to increase from 21.1% of GDP in 2016 to 26.9% of GDP by 2040 under current law. By 2040, Social Security spending is projected to increase to 6.4% of GDP (from 4.9% in 2016) and spending on major healthcare programs to 8.3% of GDP (from 5.5% in 2016). The primary explanations for their growth are: (1) the aging of the population and increase in life expectancies, which increases the number of Social Security beneficiaries, (2) the rise in per-beneficiary health care costs, and (3) the increase in the number of individuals making use of exchange subsidies and Medicaid.

Figure 3. Average annual real growth rate of major spending categories, 2017-2041 (25-year time period)



Note: Average annual real growth rate is the growth rate of 2016\$ in each spending category.
Source: CBO, *The 2016 Long-term Budget Outlook*, July 2016; EY analysis.

Appendix A. Calculation of fiscal gap under alternative assumptions

The fiscal gap is expressed in discounted present values, which convert projected paths of future deficits (excluding interest), current government debt, and an assumed level of future government debt into an equivalent, lump-sum amount today. The fiscal gap depends on the time horizon of the projection, and this report examines the US fiscal gap over the next 25 years, 50 years, and 75 years, using different debt-to-GDP ratios.

Analyzing several time periods illustrates how the fiscal gap worsens as federal deficits and debt grow relative to the size of the economy over time. Using different debt-to-GDP ratios acknowledges that the fiscal gap partly reflects long-term spending and revenue policy choices.

Table A-1 shows the effects of different debt-to-GDP ratio targets on the size of the fiscal gap.

Table A-1. Size of the fiscal gap (\$2016)

	Maintain current debt-to-GDP ratio (75%)	Target historical debt-to-GDP ratio (39%)	Pay off current stock of debt (0%)
<i>Trillions of dollars</i>			
25-year fiscal gap	\$9	\$17	\$26
50-year fiscal gap	\$26	\$35	\$43
75-year fiscal gap	\$46	\$54	\$63
<i>Fiscal gap per person</i>			
25-year fiscal gap	\$27,300	\$52,300	\$79,100
50-year fiscal gap	\$80,200	\$105,400	\$132,300
75-year fiscal gap	\$140,700	\$165,300	\$191,700

Note: The fiscal gap is calculated as: (1) the present value of noninterest outlays plus current debt, less (2) the present value of revenues plus the present value of the assumed stock of debt. The discount rate used is the interest rate on all federal debt held by the public as projected by the CBO. The historical average debt level is the average debt-to-GDP ratio between 1966 and 2015.

Source: CBO, *The 2016 Long-term Budget Outlook*, July 2016; EY analysis.

Appendix B. Caveats and limitations

The projections of federal spending and revenue and corresponding fiscal gap estimates in this report rely on the CBO's *The 2016 Long-term Budget Outlook*. Readers should be aware of the following limitations to this analysis.

- ▶ **Uncertainty in budget and economic projections.** There is considerable uncertainty in projections of the federal budget over 25-, 50-, and 75-year time periods. Similarly, there is also considerable uncertainty in long-term US economic projections. All budget and economic data in this report rely on CBO projections as of July 2016.
- ▶ **The end-of-period debt-to-GDP ratio in fiscal gap analysis is a policy choice.** This report provides fiscal gap estimates for three debt-to-GDP ratios: (1) maintain the current debt-to-GDP ratio (75%), (2) assume the historical debt-to-GDP ratio (39%), and (3) pay off the current stock of debt held by the public (0%). The end-of-period debt-to-GDP ratio, however, is a policy choice subject to tradeoffs.
- ▶ **The CBO's *The 2016 Long-term Budget Outlook* extended baseline reflects current law as of July 2016.** Changes in the law after July 2016 are not included.
- ▶ **Offsetting collections and receipts are presented in line with government accounting practices.** Offsetting collections and receipts are included in the fiscal gap calculation as reductions to spending, rather than as additions to revenue. If offsetting collections and receipts were classified on the revenue side of the budget, then reported spending and revenue would, for example both increase by approximately \$0.5 trillion (3% of GDP) in 2016.