Analyzing the US government's fiscal gap

Prepared for the Peter G. Peterson Foundation

June 2016





The US government's fiscal gap

Executive summary

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 \$439 billion in 2015 to \$1.4 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 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.

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.

► 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 to fund 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 is a measure of the extent to which the government's projected commitments exceed its projected resources. It can also be used to estimate the size of the policy changes that would be 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

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 and policy assumptions.

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. And presenting estimates based on both current law and current policy for each time period recognizes that there is uncertainty about both future spending and tax policies.

Size of the fiscal gap

The United States faces a large, but fixable, fiscal gap. Under the assumption that debt is reduced to its historical share of GDP by the end of the projection period, the fiscal gap (in 2015 dollars) is estimated as follows:

- 25-year fiscal gap: \$13 trillion (\$41,100 per person) under current law and \$22 trillion (\$67,400 per person) under current policy.
- ► **50-year fiscal gap:** \$21 trillion (\$64,000 per person) under current law and \$56 trillion (\$171,200 per person) under current policy.
- **75-year fiscal gap:** \$30 trillion (\$92,100 per person) under current law and \$103 trillion (\$318,300 per person) under current policy.

To put these numbers in perspective, US per capita income was \$56,000 in 2015.

Size of the required policy changes

Significant changes in budget policy will be needed to close the fiscal gap. To reduce debt to its historical share of GDP (38%) within 50 years, this report estimates that the following changes would be required (see Figure ES-2):

- If lawmakers relied only on federal revenues to close the fiscal gap, revenues would need to be increased 11% under current law and 33% under current policy.
- If lawmakers relied only on spending cuts to close the fiscal gap, spending (excluding interest) would need to be reduced by 11% under current law and 25% under current policy.

Figure ES-2. 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 10-Year Treasury notes as projected by the Congressional Budget Office. This is also used to compute the present value of each spending category. The historical average debt level is the average debt-to-GDP ratio between 1965 and 2014. Current law is based on CBO's extended baseline scenario. Current policy is based on CBO's alternative fiscal scenario.

Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

Contents

I. Introduction	1
II. Current and projected federal budget	3
III. Size of the fiscal gap	12
IV. Sensitivity of fiscal gap estimates	17
V. Caveats and limitations	19
VI. Summary	20
Endnotes	21

Analyzing the US government's fiscal gap

I. Introduction

The gap between revenues and expenditures in the US federal government budget is becoming increasingly unsustainable, according to projections by the Congressional Budget Office (CBO) . Budgetary pressures will intensify as spending for Social Security and government healthcare programs increase with the retirement of the baby boomers. Spending will rise significantly faster than revenues as a fraction of GDP, thereby increasing the government's debt and causing interest costs to rise even further.

A useful metric of the fiscal outlook of the US government and its sustainability - and the metric on which this report focuses - is the fiscal gap, which is the difference between discounted future spending and revenue over a given time period. The fiscal gap is adjusted to reach a specified ratio of debt held by the public to GDP at the end of this time period. The assumed ratio is set to consider the impact on the size of the fiscal gap of paying off the entire debt, reaching the historical ratio of debt to GDP, and staying at the current debt ratio at the end of this time period. The fiscal gap reflects the decrease in federal spending (excluding interest) or increase in federal revenue (or a combination thereof) required for the federal government to reach the specified debt-to-GDP ratio. The calculation of the fiscal gap is described in Box 1 and illustrated in Figure 1.

The fiscal gap provides a measure of the magnitude of policy change (or set of policy changes) that would be required to achieve an assumed debt-to-GDP ratio in the long-run. Such policy changes could include structural changes

Box 1. How the Fiscal Gap is calculated

The "fiscal gap" is a measure of the extent by which the government's commitments (e.g., spending, debt obligations) exceeds its revenues (e.g., revenues) over a period of time.

The fiscal gap is calculated as: 1) the difference between the present value of noninterest federal government spending and the present value of revenues (the "primary deficit"), plus 2) the 2015 stock of debt, minus 3) the assumed dollar amount of debt at the end of the time period analyzed. The debt assumption regarding the amount of debt at the end of the time period is a policy choice and independent of the fiscal gap calculation. The fiscal gap calculation is more precisely detailed in the following five steps.

First, the present value of noninterest spending over the chosen time period is computed. This is a single number that aggregates the sum of annual noninterest spending within time period discounted by the projected real interest rate of 10-year Treasury notes (projected for each year by the CBO). Second, the present value of revenues is similarly calculated. Annual revenues are discounted (at the projected 10year Treasury Bond real rate) and summed across all years over the time period. Step three subtracts the result of step one from step two. The result is the aggregate primary deficit over the period. To this, step four, the dollar amount of current debt held by the public is added. This results in an aggregate gap. The final fiscal gap is calculated by subtracting from the aggregate gap an amount equal to the present value of the assumed debt-to-GDP ratio.

to federal entitlement programs, changes to other spending programs, changes in tax policy to raise additional revenue, or some combination of spending and revenue changes.

Figure 1. Calculating the 50-year fiscal gap under current law, assuming debt is reduced to its historical average of 38% of GDP in 2065 (present values of billions of \$2015)



Note: The fiscal gap calculations use the real interest rate on 10-Year Treasury notes, as projected by the Congressional Budget Office, as the discount rate. This is also used to compute the present value of each spending category. The historical average debt level is the average debt-to-GDP ratio between 1965 and 2014. Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

Although there is considerable uncertainty in projections so far out into the future, CBO projections are suggestive of the general trend of the federal government's current fiscal imbalance. The increasing annual deficits and corresponding accumulation of debt that result from this imbalance can have significant negative consequences for the US economy:¹

- ► **Decreased national saving and future income.** Because increased federal debt would crowd out private investment, labor productivity and real wages would be reduced.
- Pressure for larger tax increases or spending cuts in the future. Increased federal debt would result in higher federal interest payments, requiring additional federal revenue to provide the same level of government services. Alternatively, federal non-interest spending would need to be reduced.
- Reduced ability to respond to domestic and international problems. Unexpected events such as recessions or foreign conflicts often require additional borrowing by the federal government. A long-term increase in federal debt may reduce the ability of the federal government to respond to such situations.
- Greater chance of a fiscal crisis. If investors lose confidence in the United States' ability or willingness to pay its debts a fiscal crisis in which the federal government loses its ability to fully fund its activities could ensue. The debt-to-GDP ratio at which such a fiscal crisis would occur, however, is subject to considerable uncertainty.

II. Current and projected federal budget

Key takeaways:

- Net interest is projected to be the fastest-growing category of spending in the federal budget over the next 25 years due to the growing imbalance between spending and revenues and significant increase in federal government debt. By 2040, federal debt held by the public is projected to increase from its current level of 74% of GDP (the "debt-to-GDP ratio") to 114% of GDP under the current law baseline. Under the current policy baseline, debt held by the public is projected to reach 156% of GDP by 2040. These levels would be even higher if the economic effects of debt were included.
- Overall, total spending is projected to increase from 20.5% of GDP in 2015 to 25.7% of GDP by 2040 under the current law baseline and to 30.4% of GDP by 2040 under the current policy baseline. Notably, by 2040, Social Security spending is projected to increase to 6.2% of GDP (from 4.9% in 2015) and spending on major healthcare programs to 8.0% of GDP (from 5.2% in 2015). The primary explanations for the growth in these two categories include:
 - the aging of the population and increase in life expectancies, both of which increase the number of Social Security beneficiaries,
 - the rise in per beneficiary health care costs, and
 - the increase in the number of individuals making use of exchange subsidies and Medicaid.

In 2015, federal government revenues totaled \$3.2 trillion. In the same year, spending totaled \$3.7 trillion, resulting in a federal deficit of \$0.5 trillion.² The federal budget contains a number of revenue and spending categories.

The size of the fiscal gap depends not just on current federal spending and revenue, but also on projected spending and revenue. When projecting federal spending and revenue the CBO produces two scenarios: (1) the extended baseline and (2) the alternative fiscal scenario (AFS). Broadly speaking, the extended baseline is a projection of current law extended into the future, whereas the AFS is a projection of current policy into the future.

Revenues

Approximately one-half of revenues are from the individual income tax and one-third from payroll taxes. The remainder is split approximately evenly between corporate income taxes and miscellaneous revenue sources (e.g., excise taxes, customs duties, and estate and gift taxes).

The federal tax code contains a number of temporary tax provisions that are typically renewed for one- to two-year periods. Under the extended baseline (current law) these temporary provisions expire and are not included in the projection after expiration, whereas under the AFS

(current policy) these provisions are assumed to be extended permanently (or always temporarily extended) and included in the projection after their expiration under current law. These two scenarios are described in greater detail in Table 2.

A number of these temporary provisions, totaling nearly \$700 billion over 10 years, were addressed on a more permanent basis by the Congress in December 2015 with the enactment of the Protecting Americans from Tax Hikes (PATH) Act of 2015 and the 2016 Omnibus. While not reflected in the CBO's *The Long-term Budget Outlook 2015* released in June 2015, this report adjusts the CBO's long-term projections to reflect the impact of the tax extender provisions included in this legislation.³

Government spending and revenue from 1990 through 2040 are summarized in Figure 2 and discussed further below. Projections in Figure 2 are based on the alternative fiscal scenario.





Note: Projections for the years 2015 to 2040 are based on the Congressional Budget Office's alternative fiscal scenario in *The 2015 Long-term Budget Outlook*. The Congressional Budget Office also projects spending and revenues under current law, which is discussed in Section II of this report. These projections have been adjusted to incorporate the tax extender provisions included in the *Protecting Americans from Tax Hikes Act of 2015*, as well as those included in the 2016 Omnibus.

Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Office of Management and Budget, *Table 1.2—Summary of Receipts, Outlays, and Surpluses or Deficits (-) as Percentages of GDP: 1930–2018; Monthly Treasury Statement*, September 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40), The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

Spending

The broad spending categories include: (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. In contrast, 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.⁴ Additional detail on the spending categories is provided below:⁵

- Discretionary spending (\$1.2 trillion in 2015). Discretionary spending includes a variety of defense, domestic, and international programs, including defense operations and maintenance, education grants, housing assistance programs, transportation programs, and veterans' benefits and services. This category is split approximately evenly between discretionary defense spending and discretionary nondefense spending.
- Mandatory spending (\$2.3 trillion in 2015). 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 (\$950 billion in 2015). The major healthcare programs include: (1) Medicare, (2) Medicaid, (3) exchange subsidies and related spending, and (4) the Children's Health Insurance Program. Medicare (\$550 billion net of \$100 billion of Medicare premiums) generally provides subsidized medical insurance to individuals 65 and older, as well as certain individuals with disabilities. Medicaid (\$350 billion) is a jointly funded state and federal program that largely provides funds for medical care to low-income individuals. Exchange subsidies and related spending (\$40 billion) refers to spending on health insurance exchanges operated by the federal government on which individuals can buy private health insurance. The Children's Health Insurance Program (\$10 billion) provides health insurance to children in lower-income families with incomes too high to qualify for Medicaid.
 - Social Security (\$900 billion in 2015). Social Security consists of two parts: (1) Old-Age and Survivors Insurance and (2) Disability Insurance. Old-Age and Survivors Insurance provides full benefit payments to individuals aged 66-67 and older (retirement age depending on year of birth) with the option to receive reduced payments as early as age 62. Eligible spouses and children of deceased individuals also receive payments. Disability Insurance provides payments to individuals with specific health conditions.
 - Other mandatory spending (\$450 billion in 2015). This includes mandatory spending unrelated to major healthcare programs and Social Security such as 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.

As is conventional in federal budget accounting, spending is presented net of offsetting collections and receipts (i.e., receipts of the federal government assigned to offset a particular spending category). These include user charges and fee payments for business-like or market-oriented services, such as Medicare premiums, proceeds from governmentsponsored enterprise equity-related transactions, and the sale of energy from the Tennessee Valley Authority and the Bonneville Power Administration.⁶ Offsetting collections and receipts are further detailed in Box 2. The fiscal gap presented in this report is consistent with the government's treatment of offsetting collections and receipts – these amounts are included in the fiscal gap calculation as reductions to spending, rather than as additions to revenue.

Changes in spending over time

Figures 3 and 4 summarize the growth of major spending categories over the 25-year time period (2016-2040). Figure 3 presents the average annual real growth rate 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. Figure 4 complements Figure 3 by presenting the major spending

Box 2. Offsetting **Receipts/Collections**

Due to accounting requirements included in the 1990 Budget Enforcement Act, CBO estimates are net of offsetting receipts/collections by the US government from the public for fee and charge payments for services. These are revenues that flow into government accounts that are netted against expenditures. For FY2014, offsets equaled \$570 billion. For FY2015 the President's 2016 budget request estimated them at \$548 billion.

If offsetting receipts/collections were moved from the spending side of the budget to the revenue side, total 2015 revenues would be \$3.8 trillion (or 20.7% of GDP) and estimated total spending would be \$4.3 trillion (or 23.5% of GDP). Including these receipts and expenditures better reflects the scope of the Federal Government in the private economy. However, such a reclassification would have no effect on the fiscal gap.

See President's FY2016 Budget Submission, Analytical Perspectives, Ch. 13, pp. 205-209, Table 13-3.

categories as a share of GDP over the 2016-2040 period.

Net interest is the fastest-growing category of spending over the 25-year time period reflecting the imbalance between what the federal government spends and receives in revenue and the resulting accumulation of debt held by the public over time. This is the case for both the extended baseline and AFS. By 2040 debt held by the public is projected to increase from its current level of 74% of GDP (the "debt-to-GDP ratio") to 114% of GDP under the current law baseline. Under the current policy baseline, debt is projected to reach 156% of GDP by 2040. Beyond the 10-year budget window of the extended baseline, these projections do not account for macroeconomic feedback. CBO projects that if those macroeconomic effects were included, debt would climb to 175% of GDP by 2040 under the current policy baseline.

Overall, total spending is projected to increase from 20.5% of GDP in 2015 to 25.7% of GDP by 2040 under the current law baseline and to 30.4% of GDP by 2040 under the current policy baseline. By 2040, Social Security spending is projected to increase to 6.2% of GDP (from 4.9% in 2015) and spending on major healthcare programs to 8.0% of GDP (from 5.2% in 2015). 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.





Note: Average annual real growth rate is the growth rate of 2015\$ in each spending category. The projections have been updated to incorporate the tax extender provisions included in the *Protecting Americans from Tax Hikes Act of 2015*, as well as those included in the 2016 Omnibus.

Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

The significant differences between the extended baseline (current law) and AFS (current policy) result from the assumptions regarding projected revenue (higher in extended baseline as compared to the AFS) and discretionary and other mandatory spending (lower in extended baseline as compared to the AFS). With lower revenue and higher spending, the AFS results in larger budget deficits than the extended baseline. Larger deficits, in turn, require additional borrowing and increased interest payments, which further add to the deficit. These differences are summarized in Figure 5, which compares 2040 deficit projections for the extended baseline and AFS.



Figure 4. Major spending categories as a share of GDP, 2016-2040 (25-year time period)

Note: The projections have been updated to incorporate the tax extender provisions included in the *Protecting Americans from Tax Hikes Act of 2015,* as well as those included in the 2016 Omnibus. Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook,* June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39),* December 2015 (JCX-142-15); Joint Committee on Taxation, Estimated Revenue Budget *Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40), The "Protecting Americans from Tax Hikes Act of 2015",* December 2015 (JCX-143-15); EY analysis.

The divergence in revenue as a share of GDP between the extended baseline and the AFS increases over time: 17.7% versus 17.5% in 2015, 19.1% versus 18.0% in 2040, 21.3% versus 18.0% in 2065, and 23.5% versus 18.0% in 2090. The increase in tax revenue in the extended baseline is largely due to: (1) taxpayers moving into higher tax brackets due to increases in taxpayers' real incomes over time (i.e., real bracket creep), and (2) the tax increases enacted under the Affordable Care Act. In contrast, the AFS assumes that revenue as a share of GDP remains near – though slightly above – its historical average (18.0% relative to its 50-year historical average of 17.4%).⁷

Figure 5. Reconciliation of projected federal deficit as a share of GDP under the extended baseline and alternative fiscal scenario, 2040



Note: The projections have been adjusted to reflect the revenue impact of the tax extender provisions included in the *Protecting Americans from Tax Hikes Act of 2015* and the 2016 Omnibus. Figures may not sum due to rounding. Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

By 2040, the CBO projects discretionary and other mandatory spending to be 6.9% of GDP under the extended baseline, as compared to 9.9% of GDP under the AFS, as summarized in Table 1. The CBO's extended baseline assumes that discretionary spending declines to 5.1% of GDP by 2025 due to spending caps and then remains at this level going forward. In contrast, the AFS assumes that discretionary and other mandatory spending increases to its average share of GDP over the past two decades.

Table 1. Congressional Budget Office projections for	r discretionary and other mandatory
spending as a percentage of GDP in 2040	

	Extended baseline	Alternative fiscal scenario
Discretionary spending Other mandatory spending	5.1% <u>1.8%</u>	7.2% <u>2.7%</u>
Total: Discretionary and other mandatory spending	6.9%	9.9%

Source: Congressional Budget Office, The 2015 Long-term Budget Outlook, June 2015.

Table 2. Comparison of the extended baseline and alternative fiscal scenario

	Description	Time period	Extended baseline	Alternative fiscal scenario		
		2015-2025	Tax provisions follow current law as defined in the CBO's <i>The Long-term</i> <i>Budget Outlook 2015</i> adjusted to reflect the revenue impact of the tax extender provisions included in the <i>Protecting Americans from Tax Hike</i> (<i>PATH</i>) <i>Act of 2015</i> and the 2016 Omnibus			
Revenue	All	2026-2090	Revenues as a % of GDP increase over time reaching 23.5% by 2090. Increases due largely to: (1) taxpayers moving into higher tax brackets and (2) tax increases under the Affordable Care Act	Revenues in 2025 will equal 18.0% of GDP and remain at this level thereafter		
Spending	Discretionary and certain mandatory spending	2015-2025	Spending caps on discretionary budget authority through 2021 (and extrapolated through 2025) occur, reducing discretionary spending from 6.5% of GDP in 2015 to 5.1% of GDP in 2025	The automatic spending reductions resulting from the failure of the Supercommittee to recommend a deficit reduction plan do not occur, but the original Budget Control Act caps on discretionary budget authority remain in place		
		2026-2090	Discretionary spending remains at 5.1% of GDP after 2025; other mandatory spending declines from 2.3% of GDP in 2025 to 0.8% by 2090	Discretionary and other mandatory spending will rise as a % of GDP after 2025 to the average level of the past two decades (9.9%)		
	Social Security and major health care programs	2015-2090	Social Security and health care spending are expected to increase as a larger share of the population draws benefits.	Generally the same as the extended baseline		

Note: "Supercommittee" refers to the Joint Select Committee on Deficit Reduction, which was created by the Budget Control Act of 2011. "Other mandatory spending" includes mandatory spending unrelated to major healthcare programs and Social Security such as Supplemental Nutrition Assistance Program, Temporary Assistance to Needy Families, and the refundable portions of the earned income tax credit and the child tax credit.

Source: Congressional Budget Office, The 2015 Long-term Budget Outlook, June 2015; Joint Committee on Taxation, Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39), December 2015 (JCX-142-15); Joint Committee on Taxation, Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40), The "Protecting Americans from Tax Hikes Act of 2015", December 2015 (JCX-143-15); EY analysis.

Box 3. Off-budget items and non-budgetary government activities

Off-budget items

Although the term off-budget is often used to mean non-budgetary, in the strictest sense it is a legal distinction that requires the spending of certain activities to be reported separately. While these activities are funded and administered by the government, their net costs are excluded, by law, from the rest of the "on-budget" totals. Although the number of off-budget items has changed over time, currently there are two off-budget entities, Social Security and the US Post Office. The two Social Security Trust Funds: Old-Age and Survivors Insurance and Disability Insurance have been off-budget since 1986 and the Post Office has been off-budget outlays were estimated at 22.7% of total receipts and off-budget outlays were estimated at 19.4%. The 2015 estimated surplus from off-budget items is \$0.3 billion, which is based upon a \$1 billion surplus from the Post Office and \$0.7 billion deficit in Social Security. By 2017, the off-budget entities are estimated to be in a deficit, as a result of a \$10.1 billion deficit for Social Security and a \$0.4 billion surplus for the Postal Service.

Non-budgetary government activities

Non-budgetary activities are government activities that do not generally involve the direct allocation of resources by the government. These activities may or may not affect budget outlays or receipts. Although there are many non-budgetary activities, two noteworthy activities are the Government Sponsored Enterprises (GSEs) and the Federal Reserve System.

Government Sponsored Enterprises (GSEs). GSEs are federally chartered to serve public policy purposes, but are intended to be privately owned and controlled. The two most significant GSEs are the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac).

Federal Reserve System. By law, the Federal Reserve System is a self-financing entity independent of the Executive Branch and subject to broad oversight by the Congress. The income produced by the various activities of the Federal Reserve System (after subtracting the cost of generating that income and the cost of the systems activities) is remitted to the Treasury and counted as revenue. The largest component of this income is the result of interest earned on the Federal Reserve holdings of securities. Historically, the Federal Reserve Board's transactions primarily consisted of buying Treasury securities and exchanging them for currency. Largely as a result of the financial crisis in 2007, the Federal Reserve System expanded its activities and quadrupled the size of its asset holdings through significant purchases of Treasury securities and mortgage backed securities from Fannie Mae, Freddie Mac, and the Government National Mortgage Association. This has had the effect of significantly increasing revenue over the past several years. While in 2008, remittances were 0.2% of GDP, since 2010 they have been closer to 0.5% of GDP and the hit 0.6% of GDP in 2014 (\$99 billion). Beyond 2015, remittances are expected to decline to less than 0.1% of GDP.

Source: Congressional Budget Office, *The Budget and Economic Outlook: 2014 to 2024*, February 2014; Department of Housing and Urban Development, *Annual Report to Congress Regarding the Financial Status of the FHA Mutual Mortgage Insurance Fund FY 2014*, November 2014; Office of Management and Budget, *Budget Concepts and Budget Process, Analytical Perspectives, Budget of the United States Government, Fiscal Year 2015*, March 2014.

III. Size of the fiscal gap

Key takeaways:

- The fiscal gap is equivalent to the decrease in noninterest spending or increase in revenue required for the federal government to reach an assumed debt-to-GDP ratio at the end of a time period.
 - Over the 75-year time period, the fiscal gap is estimated to be \$30 trillion (\$92,100 per person) under the current law baseline and \$103 trillion (\$318,300 per person) under the current policy baseline when assuming the historical debt-to-GDP ratio (38%). As a point of comparison, current income per person in the United States is \$56,000.
 - Under an alternative debt-to-GDP assumption of maintaining the current debt-to-GDP ratio (74%), the fiscal gap estimate is \$97 trillion (\$297,500 per person) under the current policy baseline.
 - Under an alternative debt-to-GDP assumption of zero debt and a 75-year time period, estimates of the fiscal gap is \$111 trillion (\$340,300 per person) under the current policy baseline.
 - Note that each of these fiscal gap estimates is larger than the total discounted spending on Social Security over the same 75-year period (\$85 trillion).

The fiscal gap is calculated as the difference between discounted future federal spending and federal revenue over a given time period needed to achieve a specific ratio of debt held by the public to GDP at the end of the time period. It reflects the decrease in noninterest spending or increase in revenue (or a combination thereof) required for the federal government to reach an assumed debt-to-GDP ratio at the end of the time period considered.

This report presents estimates of both the total fiscal gap and on a per capita basis. The expression of the fiscal gap on a per capita basis is interesting because it illustrates the magnitude of the fiscal gap's burden on every citizen.

Estimates of the fiscal gap under the extended baseline and AFS are presented for 25-, 50-, and 75-year time periods in Table 3. Estimates are presented for three different assumptions for debt-to-GDP at the end of the time period: (1) maintain the current debt-to-GDP ratio (74%), (2) assume the historical debt-to-GDP ratio (38%), and (3) pay off the current stock of debt held by the public (0%).⁸ In effect, when a debt-to-GDP ratio assumption is chosen, debt in excess of that assumed ratio is then considered part of the fiscal gap.

The fiscal gap estimates are, of course, sensitive to assumptions. The AFS fiscal gap estimates are larger than the extended baseline estimates due to the different spending and revenue assumptions, which result in larger annual deficits. A lower debt-to-GDP assumption results in larger fiscal gap estimates because more debt held by the public must be paid off in addition to addressing annual deficits.

Additionally, longer time periods lead to larger fiscal gap estimates because more annual deficits are included. Across these various scenarios (i.e., using different debt-to-GDP ratio assumptions and CBO baselines) the 25-year fiscal gap, for example, ranges from \$7 trillion (\$20,500 per person) to \$29 trillion (\$89,100 per person).

Some researchers have calculated the fiscal gap using an infinite time horizon, which reflects spending and revenues for all future years. Including all future years under the infinite time horizon results in a larger estimated fiscal gap, but requires making assumptions on spending and revenues, and, implicitly, the economic conditions and demographics that underlie such projections, far beyond the time periods analyzed by this report.⁹

Also of importance is the discount rate used to compute the present value of projected spending, revenue, and the assumed level of debt held by the public, which is examined in the sensitivity section of this report. The discount rate used to estimate the size of the fiscal gap is the real interest rate on 10-Year Treasury notes as projected by the CBO.¹⁰ This interest rate increases from 1.2% in 2016 to 2.3% by 2028 after which it remains unchanged.

			-			
	Extended baseline			Alternative fiscal scenario		
-	Maintain	Assume	5 "	Maintain	Assume	5 "
	current debt-	historical	Pay off	current debt-	historical	Pay off
	to-GDP ratio	debt-to-GDP	current stock	to-GDP ratio	debt-to-GDP	current stock
_	(74%)	ratio (38%)	of debt (0%)	(74%)	ratio (38%)	of debt (0%)
-						
-			I rillions o	of dollars		
25 years	\$7 \$14	\$13 \$21	\$20	\$15 \$40	\$22 \$56	\$29 \$62
50 years		⊅∠ I ¢20	Φ20 ¢27		0C¢	000 0111
75 years	\$Z3	\$30	\$3 <i>1</i>	\$ 91	\$103	φιιι
-			Fiscal gap	per person		
25 years	\$20,500	\$41,100	\$62,800	\$46,800	\$67,400	\$89,100
50 years	\$43,300	\$64,000	\$85,900	\$150,500	\$171,200	\$193,100
75 years	\$71,300	\$92,100	\$114,100	\$297,500	\$318,300	\$340,300

Table 3. Size of the fiscal gap (\$2015)

Note: The fiscal gap is computed as: (1) the present value of noninterest outlays plus the current stock of debt, less (2) the present value of revenues plus the present value of the assumed stock of debt. The discount rate used is the real interest rate on 10-Year Treasury notes as projected by the Congressional Budget Office. It increases from 1.2% in 2016 to 2.3% by 2028 after which it remains unchanged. The fiscal gap per person is computed as the present value of the fiscal gap divided by the US population. The historical average debt level is the average debt-to-GDP ratio between 1965 and 2014.

Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

Fiscal gap: total and per capita

The fiscal gap estimates that assume the historical debt-to-GDP ratio at the end of the 25-, 50-, and 75-year time periods are presented in Table 3. These estimates include both the payments on debt required to return to the historical debt-to-GDP ratio (38%) and the difference between

discounted future spending and revenue over each time period. As a point of comparison, income per person in the United States for 2015 is \$56,000.¹¹

- 25-year fiscal gap. \$13 trillion (\$41,100 per person) in the extended baseline and \$22 trillion (\$67,400 per person) in the AFS
- ► **50-year fiscal gap.** \$21 trillion (\$64,000 per person) in the extended baseline and \$56 trillion (\$171,200 per person) in the AFS
- **75-year fiscal gap.** \$30 trillion (\$92,100 per person) in the extended baseline and \$103 trillion (\$318,300 per person) in the AFS

The calculation of the 75-year fiscal gap in the extended baseline is illustrated in Figure 6.

Figure 6. Illustration of the calculation of the 75-year fiscal gap in the extended baseline, assuming that the 2090 debt-to-GDP ratio is equal to the historical average ratio of the past 50 years



Note: The fiscal gap calculations use the real interest rate on 10-Year Treasury notes, as projected by the Congressional Budget Office, as the discount rate. It increases from 1.2% in 2016 to 2.3% by 2028 after which it remains unchanged. The historical average debt level is the average debt-to-GDP ratio between 1965 and 2014. Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

In addition, estimates for both the current and zero debt-to-GDP ratio assumptions are presented. For the fiscal gap estimates that achieve a zero debt-to-GDP at the end of the specified time period, both the payments on debt required to pay off the entire current stock of debt and the amount by which discounted future spending exceeds discounted future revenue are included. In effect, this assumes that any debt held by the public is part of the fiscal gap.

- ► **25-year fiscal gap.** \$20 trillion (\$62,800 per person) in the extended baseline and \$29 trillion (\$89,100 per person) in the AFS
- ► **50-year fiscal gap.** \$28 trillion (\$85,900 per person) in the extended baseline and \$63 trillion (\$193,100 per person) in the AFS
- **75-year fiscal gap.** \$37 trillion (\$114,100 per person) in the extended baseline and \$111 trillion (\$340,300 per person) in the AFS

Finally, the fiscal gap estimates that assume the current debt-to-GDP ratio only include future annual deficits resulting from the amount by which discounted future spending exceeds discounted future revenue.

- ► **25-year fiscal gap.** \$7 trillion (\$20,500 per person) in the extended baseline and \$15 trillion (\$46,800 per person) in the AFS
- ► **50-year fiscal gap.** \$14 trillion (\$43,300 per person) in the extended baseline and \$49 trillion (\$150,500 per person) in the AFS
- **75-year fiscal gap.** \$23 trillion (\$71,300 per person) in the extended baseline and \$97 trillion (\$297,500 per person) in the AFS

Comparison of fiscal gap to total revenue and total noninterest spending

To provide additional perspective on the size of the fiscal gap, Table 4 compares the size of the fiscal gap to the present value of total revenue and, separately, total noninterest spending for each time period. For the fiscal gap estimates that assume the historical debt-to-GDP ratio:

- Total revenue. The fiscal gap is equivalent to 15% (extended baseline) and 26% (AFS) of the present value of total revenue over the 25-year time period. Over the 75-year time period, the fiscal gap is equivalent to 10% (extended baseline) and 41% (AFS) of the present value of total revenue. Assuming no spending reductions, revenue would have to increase by these percentages in order to close the fiscal gap within these time periods.
- Total noninterest spending. The fiscal gap is equivalent to 14% (extended baseline) and 22% (AFS) of the present value of total noninterest spending over the 25-year time period. Over the 75-year time period, the fiscal gap is equivalent to 10% (extended baseline) and 29% (AFS) of the present value of total noninterest spending. Assuming no increase in revenues, noninterest spending would have to be cut by these percentages to close the fiscal gap with these time periods.

In the extended baseline, the fiscal gap as a percentage of the present value of total revenue and, separately, the present value of total noninterest spending decreases as the time period lengthens. This reflects the expectation in the extended baseline that the growth rate of the fiscal gap declines over longer time periods relative to the growth rates of each of discounted revenue and discounted noninterest spending.

On the other hand, the AFS assumes that the growth rates of revenue and noninterest spending diverge widely in the future— discounted revenue is expected to remain little changed, while discounted noninterest spending is expected to steadily increase. This leads to an ever-growing fiscal gap that increases faster than do discounted revenue and discounted noninterest spending.

Extended baseline			Alternative fiscal scenario			
	Maintain	Assume		Maintain	Assume	
	current debt-	historical	Pay off	current debt-	historical	Pay off
	to-GDP ratio	debt-to-GDP	current stock	to-GDP ratio	debt-to-GDP	current stock
	(74%)	ratio (38%)	of debt (0%)	(74%)	ratio (38%)	of debt (0%)
Fiscal gap as a	a percentage of	the present value	e of total revenue)		
25 years	8%	15%	24%	18%	26%	34%
50 years	8%	11%	15%	29%	33%	37%
75 years	8%	10%	13%	38%	41%	44%
Fiscal gap as a	a percentage of	the present value	e of total noninter	rest spending		
25 years	7%	14%	22%	15%	22%	29%
50 years	7%	11%	14%	22%	25%	29%
75 years	7%	10%	12%	28%	29%	32%

Table 4. Fiscal gap as a percentage of the present value of total revenue and as a percentage of the present value of total noninterest spending

Note: The fiscal gap is computed as: (1) the present value of noninterest outlays plus the current stock of debt, less (2) the present value of revenues plus the present value of the assumed stock of debt. The discount rate used is the real interest rate on 10-Year Treasury notes as projected by the Congressional Budget Office. It increases from 1.2% in 2016 to 2.3% by 2028 after which it remains unchanged. The fiscal gap per person is computed as the present value of the fiscal gap divided by the US population. The historical average debt level is the average debt-to-GDP ratio between 1965 and 2014.

Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

IV. Sensitivity of fiscal gap estimates

Beyond the assumptions related to budget projections (extended baseline versus AFS) and the time period considered (25-, 50-, or 75-year time period), the final key assumption relates to the choice of the discount rate for the fiscal gap estimates. The discount rate used to estimate the size of the fiscal gap by this report is the real interest rate on 10-Year Treasury notes as projected by the CBO, which increases from 1.2% in 2016 to 2.3% by 2028 and is thereafter unchanged.

Alternative fiscal gap estimates displayed in Table 4 reflect a one percentage-point increase in the discount rate ("high") and one percentage-point decrease in the discount rate ("low") relative to the CBO projections. As shown in Table 5, a higher or lower discount rate can generate significant changes in estimates of the fiscal gap.

	Extended baseline			Alternative fiscal scenario		
	Maintain	Assume		Maintain	Assume	
	current debt-	historical	Pay off	current debt-	historical	Pay off
	to-GDP ratio	debt-to-GDP	current stock	to-GDP ratio	debt-to-GDP	current stock
	(74%)	ratio (38%)	of debt (0%)	(74%)	ratio (38%)	of debt (0%)
			Trillions	of dollars		
Baseline o	discount rate					
25 years	\$7	\$13	\$20	\$15	\$22	\$29
50 years	\$14	\$21	\$28	\$49	\$56	\$63
75 years	\$23	\$30	\$37	\$97	\$103	\$111
		Percer	nt change from ba	aseline fiscal gap es	timate	
High disco	ount rate (Baseline	e + 1.0%)				
25 years	30%	5%	-4%	5%	-3%	-7%
50 years	15%	-2%	-11%	-15%	-18%	-20%
75 years	-1%	-12%	-20%	-28%	-30%	-31%
Low disco	ount rate (Baseline	- 1.0%)				
25 years	-40%	-6%	5%	-7%	3%	9%
50 years	-30%	0%	15%	19%	24%	29%
75 years	-12%	15%	33%	45%	50%	53%

Table 5. Sensitivity of fiscal gap to alternative discount rates (\$2015)

Note: The fiscal gap is computed as: (1) the present value of noninterest outlays plus the current stock of debt, less (2) the present value of revenues plus the present value of the assumed stock of debt. The discount rate used is the real interest rate on 10-Year Treasury notes as projected by the Congressional Budget Office. It increases from 1.2% in 2016 to 2.3% by 2028 after which it remains unchanged. The historical average debt level is the average debt-to-GDP ratio between 1965 and 2014.

Source: Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 2015; Joint Committee on Taxation, *Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39)*, December 2015 (JCX-142-15); Joint Committee on Taxation, *Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40)*, *The "Protecting Americans from Tax Hikes Act of 2015"*, December 2015 (JCX-143-15); EY analysis.

There are two competing dynamics when changing the discount rate. As previously discussed, the fiscal gap is calculated as discounted future spending less revenue for a given time period adjusted to assume a specific debt-to-GDP ratio at the end of this time period. First, because

the US fiscal outlook worsens over time, a higher discount rate reduces the size of the fiscal gap by reducing the importance of the later years to the fiscal gap estimate. However, a higher discount rate increases the fiscal gap by also increasing the importance of the current stock of debt held by the public relative to the assumed stock of debt at the end of the time period. This increases the fiscal gap because the adjustment to the flow of annual deficits to assume a debtto-GDP ratio at the end of the time period considered is to include the excess of the current amount of debt over the present value of the assumed amount of debt.

The competing dynamics are reflected in the results presented in Table 4. For example, in the maintain current debt-to-GDP scenario under the extended baseline, the longer the time period considered, the smaller the increase in the fiscal gap with a higher discount rate. That is, the higher discount rate results in the fiscal gap increasing 30% over the 25-year time period, increasing 15% over the 50-year time period, and decreasing 1% over the 75-year time period. This result suggests that the second dynamic (assuming the debt-to-GDP ratio) generally dominates the first dynamic (placing less weight on later, larger deficit years).

However, note that as the assumed debt-to-GDP ratio decreases, the first dynamic (placing less weight on later, larger deficit years) begins to dominate the second dynamic (assuming the debt-to-GDP adjustment). For example, the 25-year period extended baseline fiscal gap with a higher discount rate increases 30% in the maintain current debt-to-GDP ratio, increases 5% when assuming the historical debt-to-GDP ratio, and decreases 4% in the pay off the current stock of debt scenario. This is because the importance of the change in the present value of assumed level of debt held by the public at the end of the time period becomes less significant as it approach zero.

V. Caveats and limitations

The projections of federal spending and revenue and corresponding fiscal gap estimates in this report rely on the CBO's *The Long-term Budget Outlook 2015*. Readers should be aware of the following limitations to this analysis.

- Uncertainty in budget and economic projections. As reflected by the large difference in results from using the extended baseline versus the AFS, 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 projections of the US economy. All budget and economic data in this report rely on CBO projections.
- ► 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 (74%), (2) assume the historical debt-to-GDP ratio (38%), 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.
- Budget projections generally do not account for macroeconomic feedback on the economy. The fiscal policies of the federal government impact the US economy, and such macroeconomic feedback impacts beyond the 10-year budget window of the extended baseline are excluded in the budget and economic data presented throughout this report. The accumulation of debt held by the public, for example, would crowd out private investment in the long-run, reduce capital formation, lower labor productivity, and, ultimately, real wages. This, in turn, would reduce GDP and worsen the US fiscal outlook.
- ► The CBO's The Long-term Budget Outlook 2015 extended baseline reflects current law as of June 2015. Changes in the law after June 2015 are generally not included in the estimates presented in this report. However, our analysis does incorporate the effects of the tax extender provisions of the PATH Act as well as the revenue provisions of the 2016 Omnibus.
- 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 2015.

VI. Summary

Based on current projections, the fiscal position of the US government will continue to worsen over the next few decades. The federal government's finances are on an unsustainable path as budgetary pressures from the unfunded growth of Social Security and federal healthcare programs remain unaddressed.

The fiscal gap is a metric of the fiscal outlook of the US government and its sustainability. The fiscal gap is the excess of discounted future spending over revenue for a given time period adjusted to an assumed debt-to-GDP ratio. It reflects the decrease in noninterest spending or increase in revenue (or a combination thereof) required for the federal government to reach an assumed debt-to-GDP ratio at the end of the time period considered.

For the historical debt-to-GDP ratio assumption (38%) the fiscal gap is estimated to be:

- 25-year fiscal gap. \$13 trillion (\$41,100 per person) in the extended baseline and \$22 trillion (\$67,400 per person) in the AFS
- ► **50-year fiscal gap.** \$21 trillion (\$64,000 per person) in the extended baseline and \$56 trillion (\$171,200 per person) in the AFS
- ► **75-year fiscal gap.** \$30 trillion (\$92,100 per person) in the extended baseline and \$103 trillion (\$318,300 per person) in the AFS

Although there is considerable uncertainty in projections so far out into the future, CBO projections are suggestive of the general trend of the federal government's current fiscal imbalance. The increasing annual deficits and corresponding accumulation of debt that result from this imbalance can have substantial negative consequences for the US economy. These include (1) decreased national saving and future income, (2) pressure for larger tax increases or spending cuts in the future, (3) reduced ability to respond to domestic and international problems, and (4) greater chance of a fiscal crisis.

Endnotes

³ These "tax extender" provisions were significantly altered with the passage of the Protecting Americans from Tax Hikes (PATH) Act of 2015 and the 2016 Omnibus in December 2015. In particular, some of the largest temporary provisions were made permanent (e.g., the credit for research and experimentation and Subpart F exception for active financing income) or extended five years rather than the typical one or two vears (e.g., the now scheduled phase-out of bonus depreciation). In the 10-year budget window of the extended baseline, this report adjusts revenues by the amount estimated by the Joint Committee on Taxation for the tax extender provisions. Outside of the 10-year budget window the change in revenue is assumed to equal the average share of GDP over the last 5 years of the budget window of the tax extenders that were made permanent. In the AFS, revenue is assumed to be equal to the extended baseline within the 10-year budget window. Outside of the 10-year budget window revenue as a share of GDP is assumed to be equal to that of the last year of the 10-year budget window (18.0%). This report also adjusts the federal government's net interest expense for the additional debt that results from enactment of the tax extender provisions. See Joint Committee on Taxation, Estimated Budget Effects of Division P of Amendment #1 to the Senate Amendment to H.R. 2029 (Rules Committee Print 114-39), December 2015 (JCX-142-15) and Joint Committee on Taxation, Estimated Revenue Budget Effects Of Division Q Of Amendment #2 To The Senate Amendment To H.R. 2029 (Rules Committee Print 114-40). The "Protecting Americans from Tax Hikes Act of 2015", December 2015 (JCX-143-15).

⁴ Net interest also includes the interest payments and interest received related to federal trust funds and other federal budget accounts. Many of these are intragovernmental transfers and, consequently, net to zero and do not impact the budget deficit. Also included is interest received from nonbudgetary financing accounts (e.g., interest related to federal student loans and the mortgage-backed securities purchased after the recent financial crisis).

⁵ Figures are from the Congressional Budget Office's *The 2015 Long-term Budget Outlook,* June 16, 2015.

⁶ If offsetting collections and receipts were instead classified on the revenue side of the budget, then reported spending and revenue would both increase by approximately \$0.5 trillion (3% of GDP) in 2015. By reporting figures net of these offsetting collections and receipts the budget concept reflects the net transactions of the government with the public rather than the total market activity of the government. See Office of Management and Budget, *Offsetting Collections and Offsetting Receipts, Analytical Perspectives, Budget of the United States Government, Fiscal Year 2016*, February 2, 2015.

⁷ The historical revenue level is computed as the average revenue as a share of GDP between 1965 and 2014.

⁸ The historical debt level is the computed as the average debt-to-GDP ratio between 1965 and 2014.
⁹ For example, one researcher estimated the fiscal gap under an infinite time horizon to be \$210 trillion.
See Laurence J. Kotlikoff, "America's Fiscal Insolvency and Its Generational Consequences," Testimony to the Senate Budget Committee, February 25, 2015.

¹⁰ This is the only interest rate included in the Congressional Budget Office's *The 2015 Long-term Budget Outlook*, June 16, 2015.

¹¹ This is the per capita gross domestic product (2015\$) projected in the Congressional Budget Office's *The 2015 Long-term Budget Outlook,* June 16, 2015. An alternative point of comparison is the present value of GDP. This is \$470 trillion over the 25-year time period, \$938 trillion over the 50-year time period, and \$1,408 trillion over the 75-year time period.

¹ See Congressional Budget Office, *The 2015 Long-term Budget Outlook*, June 16, 2015.

² All figures are in 2015 dollars. The figures are from the Congressional Budget Office's *The 2015 Long-term Budget Outlook* and are the same for the extended baseline and the alternative fiscal scenario at the level of rounding presented in text.