Congressional Budget Office

Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Price, March 2015

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Notes

In this report, the years referred to when describing budget numbers are federal fiscal years (which run from October 1 to September 30) and amounts of federal debt are given as of the end of the fiscal year. The years referred to when describing economic output are calendar years except when noted otherwise.

Numbers in the text and tables may not add up to totals because of rounding.

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Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Price, March 2015

At the request of the Chairman of the House Budget Committee, Congressman Tom Price, the Congressional Budget Office has projected budgetary and economic outcomes under paths for federal revenues and spending (excluding interest payments) specified by the Chairman and his staff. The projections do not represent a cost estimate for legislation or an analysis of the effects of any specific policies. In particular, CBO has not considered whether the specified paths are consistent with the policy proposals or budget numbers that Chairman Price released on March 17, 2015, as part of his proposed budget resolution.

The projections in this report represent CBO's assessment of how federal debt and economic output would evolve from 2016 to 2040 under Chairman Price's specified paths for revenues and noninterest spending. The projections show how the total amounts of federal revenues and spending—and the resulting amount of federal borrowing—under those paths would affect the economy and how those macroeconomic effects (or feedback) in turn would affect the federal budget. The projections do not show any other potential effects of the changes in policies relating to revenues and spending that might be used to generate those paths.

For comparison, CBO also updated the estimated effects of the four budget scenarios that it analyzed in its report *The 2014 Long-Term Budget Outlook*, published in July 2014:

- CBO's extended baseline, which is based on the assumption that current law generally remains unchanged.
- An extended alternative fiscal scenario, which includes the continuation of certain policies that have been in place for a number of years and the modification of some provisions of law that might be difficult to sustain for a long period.
- An illustrative scenario in which unspecified fiscal policies reduce the cumulative deficit over the next 10 years by a total of $2 trillion (excluding interest savings and macroeconomic effects) compared with the deficit projections in the extended baseline and in which the reduction in the deficit in the 10th year as a percentage of gross domestic product, or GDP, is continued in subsequent years.
- An illustrative scenario in which unspecified fiscal policies reduce the cumulative deficit over the next 10 years by a total of $4 trillion (excluding interest savings and macroeconomic effects) compared with the deficit projections in the extended baseline and in which the reduction in the deficit in the 10th year as a percentage of GDP is continued in subsequent years.

The updates to those scenarios and the assessment of the paths specified by Chairman Price are based on the 10-year budget and economic projections that CBO released in January 2015.[1] The amounts of federal debt

1. See Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), www.cbo.gov/publication/49892. CBO recently updated its budget projections; see Congressional Budget Office, *Updated Budget Projections: 2015 to 2025* (March 2015), www.cbo.gov/publication/49973. This report does not incorporate those updated projections, but CBO anticipates that if they were incorporated, the estimated effects of Chairman Price's specified paths on the economy and the budget would be similar to the estimated effects reported here.

and economic output estimated under current law and under all of the scenarios in this report are highly uncertain. That uncertainty stems from the difficulties inherent in budgetary projections even without regard to their macroeconomic effects and from the difficulties in projecting the effects of federal fiscal policies on the economy, especially far into the future.

In the short term, policy changes that would decrease federal spending or increase taxes—and thus shrink budget deficits—would generally reduce total demand for goods and services. As a result, such fiscal policies would reduce output and employment below the levels projected in CBO's baseline. Policy changes that would increase federal spending or decrease taxes would generally have the opposite effect. In the long term, policy changes that would decrease federal spending or increase taxes would lower the amount of federal debt held by the public relative to what it would otherwise be. Over time, smaller federal deficits and debt would leave more funds available for private investment and thereby cause output to be higher than it would be otherwise. Larger federal debt would have the opposite effect, "crowding out" private investment and decreasing output.[2]

Under the paths for revenues and noninterest spending specified by Chairman Price and his staff, the amount of federal debt held by the public would be smaller in all future years than it would be under CBO's extended baseline projections or under the three alternative budget scenarios that CBO analyzed (see Figure 1). The paths specified by Chairman Price envision cuts in spending (from the amounts projected to occur under current law) that begin in 2016 and grow successively larger in later years. The paths also envision allowing revenues to rise as projected under current law until they reach 19 percent of GDP—in 2034, CBO projects—and then remain at 19 percent. Under those paths, the cumulative deficit over the 2016–2025 period, excluding interest savings and macroeconomic effects, would be roughly $5.3 trillion lower than in CBO's baseline. With interest savings included and the resulting macroeconomic effects incorporated, the budget would show a surplus beginning in 2024. Federal debt held by the public as a share of GDP would fall to 55 percent in 2025 under the specified paths, CBO projects—compared with 79 percent under the baseline. Economic output would be lower in the short term (because less federal spending would reduce total demand for goods and services) and higher in the long term (because less federal borrowing would free up resources for private investment) than under any of the other scenarios that CBO considered (see Figure 2).

Chairman Price's specified paths for revenues and spending would require major changes in current law. In particular, by 2025, noninterest spending would be roughly 16 percent less than the amounts in the extended baseline. If that same proportional reduction had been applied in 2014, it would have represented a decrease of roughly $500 billion in noninterest spending. The specific policies that were adopted to produce those future paths would affect overall economic output not only by reducing federal borrowing but also by altering incentives to work and save and by altering federal investment. In addition, those policies would affect people's well-being in various ways beyond the effects on economic output. This analysis includes the macroeconomic effects of changes in federal debt but not the effects of any specific policies on output or other aspects of people's well-being, because CBO did not analyze a set of policies underlying the specified paths.

What Would Outcomes Be Under Current Law?

Because they incorporate the assumption that current law generally continues without change, CBO's 10-year baseline budget projections provide a benchmark against which to measure the potential effects of proposals that would alter federal taxes or spending. The extended baseline used in this longer-term analysis follows CBO's January 2015 baseline projections through 2025 and then extends the baseline concept into later years, using the interest rates and growth rates for revenues and spending from the extended baseline in CBO's *2014 Long-Term Budget Outlook*.[3] (For more information about the assumptions underlying the extended baseline and the other scenarios in this analysis, and about CBO's analytical approach, see the appendix.)

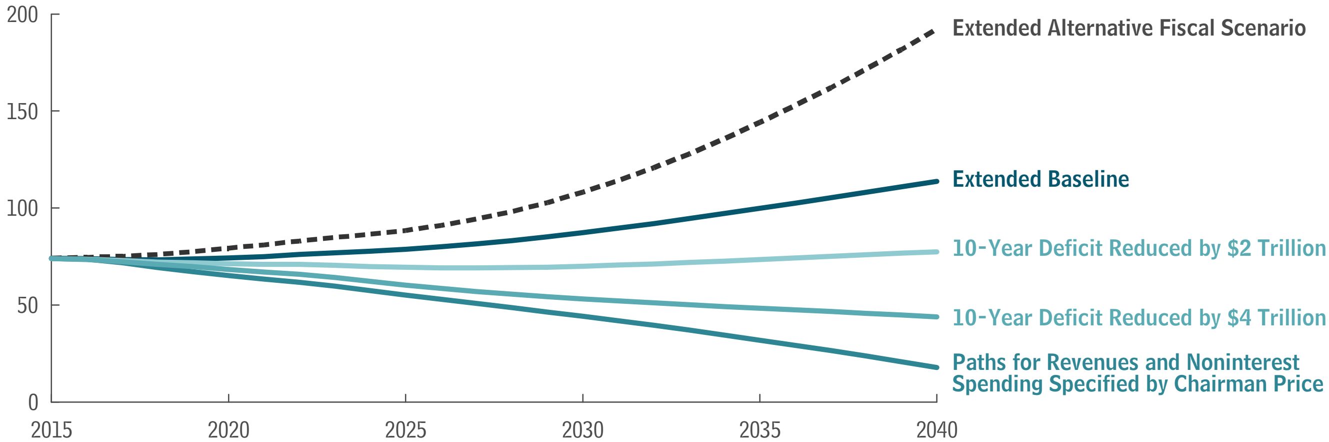
2. For a detailed discussion of CBO's analytical methods, see Congressional Budget Office, *How CBO Analyzes the Effects of Changes in Federal Fiscal Policies on the Economy* (November 2014), www.cbo.gov/publication/49494.

3. CBO has not yet fully updated the long-term projections that were published in Congressional Budget Office, *The 2014 Long-Term Budget Outlook* (July 2014), www.cbo.gov/publication/45471. The extended baseline used in this analysis does, however, reflect the changes that CBO made to its 10-year projections in January 2015.

Figure 1.

Federal Debt Held by the Public Under Various Budget Scenarios, With Macroeconomic Effects, 2015 to 2040

Percentage of Gross Domestic Product, by Fiscal Year



Source: Congressional Budget Office.

Notes: These results account for the following **macroeconomic effects** ("feedback"): the ways in which changes in federal debt affect investment in capital goods (such as factories and computers), the ways in which changes in after-tax wages (resulting from changes in capital investment) affect the supply of labor, and the ways in which those economic effects in turn affect the federal budget. The analysis incorporates the assumption that the budget scenarios do not alter the contributions that government investment makes to future productivity and output; those contributions are assumed to reflect their past long-term trends.

The **extended baseline** generally adheres closely to current law, following CBO's 10-year baseline budget projections through 2025 and then extending the baseline concept for the rest of the long-term projection period. Projections under the extended baseline incorporate effects from changes over time in incentives to work and save under current law. The 10-year baseline used in this report refers to the projections for the budget and the economy that CBO released in January 2015.

The **paths for revenues and noninterest spending specified by Chairman Price** reduce deficits (excluding interest payments) as a percentage of gross domestic product (GDP) by increasing amounts over time relative to the extended baseline. The macroeconomic effects of those paths include the short-term effects of changes in demand for goods and services and the long-term effects of changes in federal debt. However, the estimates do not incorporate effects from any differences in incentives to work or save that might stem directly from differences in policies relative to those under the extended baseline because CBO did not analyze specific policies that might underlie those paths.

The **extended alternative fiscal scenario** incorporates the assumptions that certain policies that have been in place for a number of years will be continued and that some provisions of law that might be difficult to sustain for a long period will be modified. The estimates incorporate effects from differences in incentives to work and save that stem directly from differences in policies relative to those under the extended baseline, the short-term effects of changes in the demand for goods and services, and the long-term effects of changes in federal debt.

The **10-year deficit reductions of $2 trillion and $4 trillion** relative to CBO's baseline are the cumulative reductions between 2016 and 2025, excluding interest savings and macroeconomic effects. The reductions in the deficit in 2025, expressed as a percentage of GDP without macroeconomic effects, are assumed to continue in subsequent years. The macroeconomic effects of those paths include the short-term effects of changes in demand for goods and services and the long-term effects of changes in federal debt. However, the estimates do not incorporate effects from any differences in incentives to work or save that might stem directly from differences in policies relative to those under the extended baseline because CBO did not analyze specific policies that might underlie those paths.

The total deficit under the extended baseline would grow from 2.8 percent of GDP in 2014 to 4.0 percent in 2025 and to larger percentages thereafter, CBO projects (see Table 1).[4] Federal debt held by the public would grow from 74 percent of GDP in 2014 to 79 percent by 2025.[5] In later years, debt would increase as a percentage of GDP by successively larger amounts, reaching 114 percent by 2040.

Those estimates of federal deficits and debt incorporate the feedback on the federal budget of changes in economic conditions. Increased borrowing by the government would eventually reduce private investment in productive capital because the portion of total saving

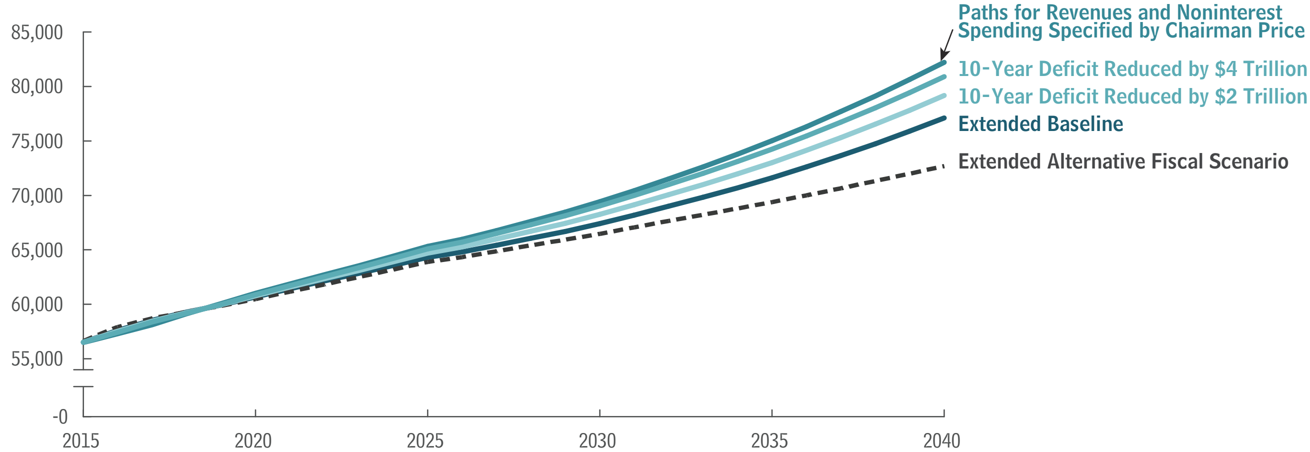
4. Those projections are described in Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), www.cbo.gov/publication/49892. Since preparing this analysis, CBO has updated those baseline projections. In CBO's March 2015 baseline, the deficit in 2025 is projected to be 3.8 percent of GDP. See Congressional Budget Office, *Updated Budget Projections: 2015 to 2025* (March 2015), www.cbo.gov/publication/49973.

5. In CBO's March 2015 baseline, federal debt held by the public in 2025 is projected to be 77 percent of GDP.

Figure 2.

Real Gross National Product per Person Under Various Budget Scenarios, 2015 to 2040

2015 Dollars, by Calendar Year



Source: Congressional Budget Office.

Notes: These results account for the following macroeconomic effects ("feedback"): the ways in which changes in federal debt affect investment in capital goods (such as factories and computers), the ways in which changes in after-tax wages (resulting from changes in capital investment) affect the supply of labor, and the ways in which those economic effects in turn affect the federal budget. The analysis incorporates the assumption that the budget scenarios do not alter the contributions that government investment makes to future productivity and output; those contributions are assumed to reflect their past long-term trends.

Unlike the more commonly cited gross domestic product, real (inflation-adjusted) **gross national product** includes the income that U.S. residents earn abroad and excludes the income that foreigners earn in the United States.

The 10-year baseline used in this report refers to the projections for the budget and the economy that CBO released in January 2015. For information about CBO's analysis of the **extended baseline and other scenarios** considered here, see the notes to Figure 1.

that investors used to buy Treasury securities would not be available to finance private investment. The result would be a smaller stock of capital and lower output and income in the long term than would otherwise be the case. Lower income would reduce tax revenues; it would also reduce federal spending, though by a smaller amount, by decreasing spending on health care and retirement programs over the long term.[6]

Despite those reductions in output and income, however, the continued growth of productivity projected under the extended baseline would make output and income per person higher in the future than they are now. Expressed in 2015 dollars, real (inflation-adjusted) gross national product, or GNP, is projected to be about $58,000 per person in 2016, about $64,000 per person in 2025, and about $77,000 per person in 2040 under the extended baseline (see Figure 2).[7] In assessing the long-term impact of tax and spending policies on output, CBO focuses on effects on GNP rather than on the more commonly cited gross domestic product. GNP includes the income that U.S. residents earn abroad and excludes the income that foreigners earn in the United States; thus, GNP is a better measure than GDP of the resources available to U.S. households.[8]

6. Federal spending would be lower if income was lower because Social Security benefits are linked to earnings and because spending on health care tends to vary with total income over the long term. For the purposes of this analysis, other noninterest spending is assumed to be unaffected by changes in income.

7. CBO's current projections of real gross national product per person under the extended baseline are lower in all years than the amounts projected in *The 2014 Long-Term Budget Outlook,* primarily because CBO is now projecting slower growth in output over the next decade. The main contributor to that change in projected economic growth is a smaller estimate of the growth in potential output (the maximum sustainable output of the economy) for the period from 2008 through 2018.

8. The difference between GNP and GDP is particularly important in analyzing the effects of fiscal policies over the long term: When the federal government runs larger budget deficits, more capital tends to flow into the United States from other countries, offsetting some of the crowding out of investment that government borrowing produces. However, over time, a growing amount of income must be paid to foreign investors as profits or interest on that invested capital. Therefore, other things being equal, increases in debt cause a greater reduction in GNP (and the income of U.S. households) than in GDP, and decreases in debt cause a greater rise in GNP than in GDP. In the short run, by contrast, fiscal policies affect GNP and GDP very similarly through their effects on total demand.

Table 1.

Budgetary Outcomes Under Various Budget Scenarios, With Macroeconomic Effects, Selected Years, 2025 to 2040

Percentage of Gross Domestic Product, by Fiscal Year

	2025	2030	2035	2040
		Revenues		
Extended Baseline	18.3	18.7	19.1	19.5
Paths for Revenues and Noninterest Spending Specified by Chairman Price	18.3	18.7	19.0	19.0
Extended Alternative Fiscal Scenario	18.1	18.1	18.1	18.1
10-Year Deficit Reduced by $2 Trillion	n.a.	n.a.	n.a.	n.a.
10-Year Deficit Reduced by $4 Trillion	n.a.	n.a.	n.a.	n.a.
		Spending Excluding Interest Payments		
Extended Baseline	19.3	20.3	21.1	21.6
Paths for Revenues and Noninterest Spending Specified by Chairman Price	16.2	16.4	16.4	16.1
Extended Alternative Fiscal Scenario	19.8	22.4	24.5	25.4
10-Year Deficit Reduced by $2 Trillion	n.a.	n.a.	n.a.	n.a.
10-Year Deficit Reduced by $4 Trillion	n.a.	n.a.	n.a.	n.a.
		Deficit (-) or Surplus Excluding Interest Payments		
Extended Baseline	-0.9	-1.6	-2.0	-2.1
Paths for Revenues and Noninterest Spending Specified by Chairman Price	2.2	2.3	2.6	2.9
Extended Alternative Fiscal Scenario	-1.8	-4.3	-6.5	-7.4
10-Year Deficit Reduced by $2 Trillion	0.4	-0.1	-0.5	-0.6
10-Year Deficit Reduced by $4 Trillion	1.8	1.3	0.9	0.9
		Total Deficit (-) or Surplus		
Extended Baseline	-4.0	-5.5	-6.5	-7.5
Paths for Revenues and Noninterest Spending Specified by Chairman Price	0.1	0.3	1.2	2.1
Extended Alternative Fiscal Scenario	-5.2	-9.2	-13.5	-17.6
10-Year Deficit Reduced by $2 Trillion	-2.2	-3.2	-3.7	-4.0
10-Year Deficit Reduced by $4 Trillion	-0.5	-1.0	-1.1	-1.0
		Federal Debt Held by the Public		
Extended Baseline	79	87	100	114
Paths for Revenues and Noninterest Spending Specified by Chairman Price	55	44	32	18
Extended Alternative Fiscal Scenario	88	108	144	192
10-Year Deficit Reduced by $2 Trillion	69	70	73	77
10-Year Deficit Reduced by $4 Trillion	60	53	48	44

Source: Congressional Budget Office.

Notes: These results account for the following **macroeconomic effects** ("feedback"): the ways in which changes in federal debt affect investment in capital goods (such as factories and computers), the ways in which changes in after-tax wages (resulting from changes in capital investment) affect the supply of labor, and the ways in which those economic effects in turn affect the federal budget. The analysis incorporates the assumption that the budget scenarios do not alter the contributions that government investment makes to future productivity and output; those contributions are assumed to reflect their past long-term trends.

The 10-year baseline used in this report refers to the projections for the budget and the economy that CBO released in January 2015. For information about CBO's analysis of the **extended baseline and other scenarios** considered here, see the notes to Figure 1.

n.a. = not applicable.

The large and growing amount of federal debt that CBO projects under the extended baseline would have significant negative consequences besides its effects on output and the economic feedback on the budget. Higher federal spending for interest on the debt would require larger changes in tax and spending policies to meet any chosen targets for budget deficits and debt. At the same time, the government would have less flexibility to use tax and spending policies to respond to unexpected challenges, such as economic downturns or wars. In addition, the risk of a fiscal crisis—in which investors would demand very high interest rates to finance the government's borrowing needs—would be greater.

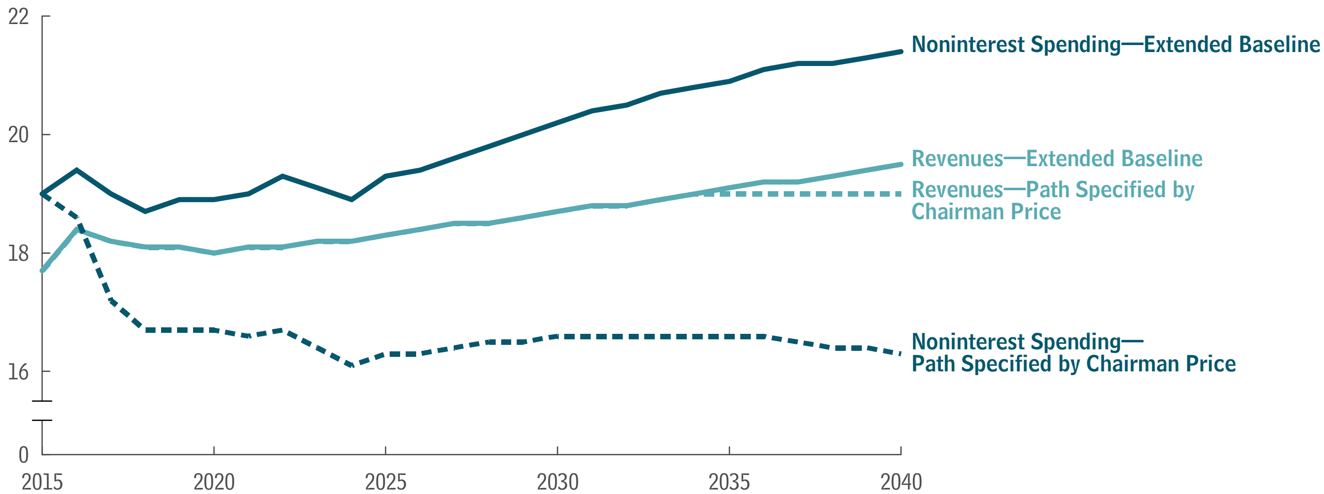
What Paths for Federal Revenues and Noninterest Spending Did Chairman Price Specify?

Chairman Price and his staff provided the following paths for federal revenues and noninterest spending (not

Figure 3.

Revenues and Noninterest Spending Under Paths Specified by Chairman Price and Under CBO's Extended Baseline, Without Macroeconomic Effects, 2015 to 2040

Percentage of Gross Domestic Product Under the Extended Baseline Without Macroeconomic Effects, by Fiscal Year



Source: Congressional Budget Office.

Notes: The **extended baseline** generally adheres closely to current law, following CBO's 10-year baseline budget projections through 2025 and then extending the baseline concept for the rest of the long-term projection period. The extended baseline without macroeconomic effects incorporates the assumptions that macroeconomic conditions are consistent with those in the 10-year baseline budget projections through 2025 but in later years generally reflect the economic experience of the past few decades and that estimated revenues and spending are consistent with those economic conditions. The 10-year baseline used in this report refers to the projections for the budget and the economy that CBO released in January 2015.

The **paths for revenues and noninterest spending specified by Chairman Price** reduce deficits (excluding interest payments) as a percentage of gross domestic product by increasing amounts over time relative to the extended baseline. The specified paths do not include effects from differences in economic conditions relative to those assumed in the extended baseline without macroeconomic effects.

including macroeconomic effects) to be used in CBO's analysis:

- For revenues, annual amounts are equal to the amounts in CBO's extended baseline until revenues reach 19 percent of GDP and then remain at 19 percent of GDP each year thereafter.
- For noninterest spending, annual amounts fall over time relative to the size of the economy. As a percentage of GDP, noninterest spending is equal to about 19 percent in 2016, generally declines over the following decade, and then hovers around 16 percent in most years thereafter.[9]

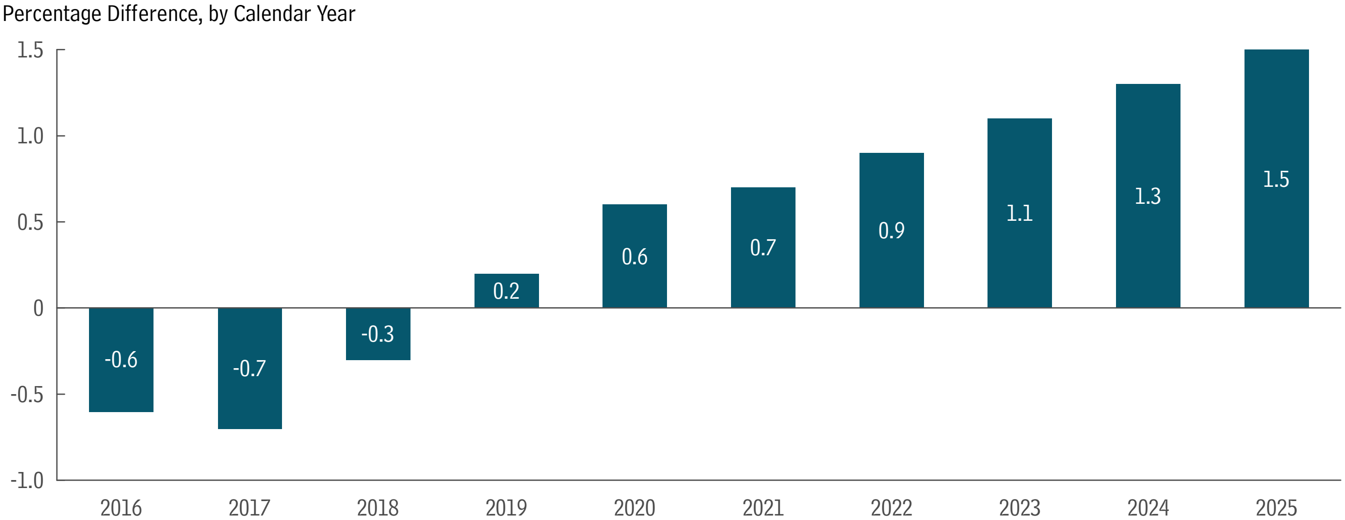
Under those specified paths, federal revenues would be lower than under the extended baseline after 2033, and federal noninterest spending would be lower than under the extended baseline each year starting in 2016, by increasing amounts (see Figure 3). Over the 2016–2025 period, the cumulative deficit (excluding interest savings and macroeconomic effects) would be about $5.3 trillion less than in CBO's baseline. Compared with the baseline, those paths would leave revenues unchanged during that 10-year period and would reduce cumulative spending on programs and activities other than interest payments by 12 percent during those years.

Chairman Price's specified paths for revenues and noninterest spending would require major changes in current law. In particular, by 2025 noninterest spending would be roughly 16 percent less than the amount in the extended baseline. If that same proportional reduction had been applied in 2014, it would have represented a decrease of roughly $500 billion in noninterest spending. By 2040, the corresponding change would be a reduction of about 24 percent (or about $800 billion if applied in 2014). While revenues in 2025 would be the same under Chairman Price's specified paths as under the extended baseline, by 2040, they would be about 2 percent less. If that same proportional reduction had been applied in 2014, it would have represented a decrease of about $75 billion in revenues.

9. For more details, see the supplemental material posted with this report on CBO's website (www.cbo.gov/publication/49977).

Figure 4.

Effects of the Paths for Revenues and Noninterest Spending Specified by Chairman Price on Real Gross National Product per Person Relative to CBO's Extended Baseline, 2016 to 2025



Source: Congressional Budget Office.

Notes: The macroeconomic effects of the paths for revenues and noninterest spending specified by Chairman Price include the short-term effects of changes in demand for goods and services and the long-term effects of changes in federal debt. Because CBO did not analyze specific policies that might underlie those paths, the estimates do not incorporate effects from any differences in incentives to work and save, or any differences in government investment, stemming from the policies that might be adopted to achieve those paths.

Unlike the more commonly cited gross domestic product, real (inflation-adjusted) **gross national product** includes the income that U.S. residents earn abroad and excludes the income that foreigners earn in the United States.

The **extended baseline** generally adheres closely to current law, following CBO's 10-year baseline budget projections through 2025 and then extending the baseline concept for the rest of the long-term projection period. Projections under the extended baseline incorporate effects from changes over time in incentives to work or save under current law. The 10-year baseline used in this report refers to the projections for the budget and the economy that CBO released in January 2015.

The **paths for revenues and noninterest spending specified by Chairman Price** reduce deficits (excluding interest payments) as a percentage of gross domestic product by increasing amounts over time relative to the extended baseline.

What Would Outcomes Be Under the Paths Specified by Chairman Price?

Incorporating the interest savings and macroeconomic effects that would result from the paths for federal revenues and noninterest spending specified by Chairman Price and his staff, the budget would show a surplus beginning in 2024. Federal debt held by the public as a share of GDP would fall to 55 percent in 2025 and to 18 percent in 2040, CBO projects—compared with 79 percent and 114 percent, respectively, under the extended baseline (see Table 1). Declining levels of federal debt relative to GDP would have additional positive consequences beyond their effects on output and on the budget: Because federal debt would be much lower than under the extended baseline, policymakers would have more leeway to use tax and spending policies to respond to economic downturns or wars, and the risk of a fiscal crisis would be much smaller.

Real GNP would be lower under Chairman Price's specified paths than under the extended baseline from 2016 to 2018, CBO estimates, because reduced federal spending relative to current law would dampen overall demand for goods and services (see Figure 4).[10] Because CBO did not analyze specific policies that might underlie those paths, the agency relied on the same assumption that it used

10. Throughout this report, differences in real GNP per person—which are illustrated in the figure—are assumed to be proportional to the estimated differences in real GNP because CBO has no basis for estimating any changes in the size of the population arising from the paths for revenues and noninterest spending specified by Chairman Price or arising from any of the other scenarios considered.

Table 2.

Effects of Various Budget Scenarios on Real Gross National Product per Person Relative to CBO's Extended Baseline, 2025 and 2040

Percentage Difference, by Calendar Year

	2025	2040
Paths for Revenues and Noninterest Spending Specified by Chairman Price		
Central Estimate	1.5	7
Likely Range	0.7 to 2.4	3 to 10
Extended Alternative Fiscal Scenario		
Central Estimate	-0.7	-6
Likely Range	-0.3 to -1.0	-3 to -9
10-Year Deficit Reduced by $2 Trillion		
Central Estimate	0.6	3
Likely Range	0.3 to 0.9	1 to 4
10-Year Deficit Reduced by $4 Trillion		
Central Estimate	1.2	5
Likely Range	0.6 to 1.8	2 to 8

Source: Congressional Budget Office.

Notes: These results account for the following macroeconomic effects ("feedback"): the ways in which changes in federal debt affect investment in capital goods (such as factories and computers), the ways in which changes in after-tax wages (resulting from changes in capital investment) affect the supply of labor, and the ways in which those economic effects in turn affect the federal budget. The analysis incorporates the assumption that the budget scenarios do not alter the contributions that government investment makes to future productivity and output; those contributions are assumed to reflect their past long-term trends.

Unlike the more commonly cited gross domestic product, real (inflation-adjusted) **gross national product** includes the income that U.S. residents earn abroad and excludes the income that foreigners earn in the United States.

The 10-year baseline used in this report refers to the projections for the budget and the economy that CBO released in January 2015. For information about CBO's analysis of the **extended baseline and other scenarios** considered here, see the notes to Figure 1.

The **central estimate** uses values at the midpoints of estimated ranges for key inputs. The **likely range** reflects estimates incorporating alternative assessments of two key parameters in the analysis: the responsiveness of private investment to changes in government borrowing and the responsiveness of the supply of labor to changes in after-tax wages. That range is intended to cover roughly the middle two-thirds of the likely values for those parameters. This type of analysis is sensitive to many factors other than alternative assessments of those parameters.

in *The 2014 Long-Term Budget Outlook* to estimate the effects of unspecified policies underlying illustrative deficit reduction paths. According to that assumption, each $1 of real deficit reduction would—in the short term, under current economic conditions—reduce real output by a total of $1 over several quarters. That dollar-for-dollar response is within the ranges of estimated effects on GDP that CBO has used in some of its past policy analyses.

Starting in 2019, real per capita GNP would be higher than under the extended baseline—by 1.5 percent in 2025 and by roughly 7 percent in 2040 (see Table 2 on page 8). GNP would be higher in the long term because smaller federal deficits and debt would lead to both an increase in private investment and a decrease in net inflows of capital from foreign countries, boosting domestic production and reducing net payments of interest and profits to foreigners, compared with what would occur under current law. Real average family income, before accounting for federal transfer payments and taxes, would also be higher than under the extended baseline. The effects would differ among families, however, with some receiving more income and others potentially receiving less income. Effects on family income after accounting for federal transfer payments and taxes would depend on how the particular policies that were adopted to produce the specified paths compared with the policies in the extended baseline. Moreover, the specific policies adopted would affect people's well-being in various ways beyond the effects on economic output. This analysis includes the macroeconomic effects of changes in federal debt but not the effects of any specific policies on output or other aspects of people's well-being because CBO did not analyze a set of policies underlying the specified paths.

Significantly changing the paths for revenues and noninterest spending from those projected to occur under current law would almost certainly involve altering people's incentives to work and save and changing the amount of federal investment, thereby affecting output. If so, the overall economic effects would depend on how the policies underlying the specified paths altered those factors, as well as on the consequences of the changes in federal debt considered in this analysis.

However, the estimates presented here do not incorporate effects of differences in people's incentives to work or save that might stem directly from changes in tax policies or benefit programs relative to those under the extended baseline because CBO did not analyze particular policies that might produce the specified paths. CBO assumed, for example, that effective marginal tax rates (the percentage of an additional dollar of income that is unavailable to an individual because it is paid in taxes or offset by reductions in benefits from government programs) would be the same under the specified paths as under the extended baseline. In addition, CBO's analysis incorporates the assumption that the paths do not change the contributions of federal investment to future productivity and output; those contributions are assumed to reflect their past long-term trends.[11] Thus, CBO's estimates of the macroeconomic effects of the paths specified by Chairman Price reflect only the ways in which deficits and debt differ from those projected under the extended baseline.

What Would Outcomes Be Under Other Budget Scenarios?

In *The 2014 Long-Term Budget Outlook*, CBO showed how the budget and the economy would evolve differently under three budgetary scenarios other than the extended baseline. Those additional scenarios are the extended alternative fiscal scenario, which would result in larger deficits and more debt than in the extended baseline, and two illustrative deficit reduction paths, which would result in smaller deficits and debt. In this report, CBO updated its projections for those three scenarios for comparison with the budgetary and economic outcomes under the extended baseline and under the paths specified by Chairman Price and his staff.

Compared with the extended baseline, the scenarios that involve smaller deficits would reduce output over the next few years, CBO estimates, reflecting their short-term impact on the demand for goods and services. After that, the continuation of smaller deficits and lower debt would increase output, reflecting the long-term effect of deficits and debt on national saving and investment. The scenario that involves larger deficits would have the opposite consequences. Like the other projections in this report, the estimated budgetary and economic effects of those scenarios are highly uncertain; the results reported here are CBO's central estimates.

Extended Alternative Fiscal Scenario

Under CBO's extended alternative fiscal scenario, certain policies that are now in place but that are scheduled to change under current law are assumed to continue, and some provisions of current law that might be difficult to sustain for a long period are assumed to be modified. (For details about the assumptions underlying that scenario, see the appendix.) The cumulative deficit over the 2016–2025 period (excluding additional interest costs and macroeconomic effects) would be about $2 trillion higher under that scenario than in CBO's baseline. In later years, deficits would exceed those in the extended baseline by growing amounts. With macroeconomic effects incorporated, federal debt held by the public would increase to 88 percent of GDP by 2025 and to much higher amounts in later years (see Table 1 on page 5).

Relative to the extended baseline, real GNP per person would be higher under that scenario over the next three years and then lower in later years. The policies incorporated in that scenario would raise the demand for goods and services in the short term, increasing real GNP relative to that under current law by an estimated 0.5 percent in 2016 and 0.3 percent in 2017. Real GNP would be lower after 2018, CBO projects—by 0.7 percent in 2025 and by increasingly greater percentages thereafter (see Figure 2 on page 4 and Table 2). The reductions in real GNP in later years would occur because the lower marginal tax rates on income from labor and capital under the extended alternative fiscal scenario would only partly offset the unfavorable effects that larger deficits and debt would have on the economy. The other problems

11. For discussion of the long-term economic benefits of federal investment, see Congressional Budget Office, *Federal Investment* (December 2013), www.cbo.gov/publication/44974. See also Congressional Budget Office, *How CBO Analyzes the Effects of Changes in Federal Fiscal Policies on the Economy* (November 2014), pp. 9–10, www.cbo.gov/publication/49494.

discussed above that stem from additional federal debt would become much more acute than under the extended baseline because debt would rise much more rapidly.

Unlike the analysis of the paths specified by Chairman Price or the two illustrative deficit reduction paths, the estimates of the economic impact of the alternative fiscal scenario incorporate effects arising from differences in incentives to work and save that result directly from the differences in particular policies underlying the extended alternative fiscal scenario and the extended baseline. The estimates also include the effects of changes in federal deficits and debt under that scenario. However, CBO's analysis incorporates the assumption that the contributions of federal investment to future productivity and output would not be affected by the policy changes in this scenario.

Two Illustrative Paths for Deficit Reduction

For its two illustrative budgetary paths with smaller deficits and debt, CBO assumed that deficits would be decreased gradually relative to what they would be under current law so that the total deficit over the 2016–2025 period (excluding interest payments and macroeconomic effects) would be either $2 trillion or $4 trillion smaller than under the extended baseline. Those amounts are less than the roughly $5.3 trillion in deficit reduction over that period envisioned in the paths specified by Chairman Price. CBO assumed that the deficit reduction under the two illustrative paths would begin in 2016 and that after 2025 the decrease in annual deficits relative to the extended baseline would continue at the same percentage of GDP (without macroeconomic effects) projected for 2025. For the sake of simplicity, and to avoid any presumption about what particular policies might be chosen to reduce the deficit, CBO analyzed those two illustrative deficit reduction paths without specifying the tax and spending policies underlying them.

With macroeconomic effects incorporated, the path with $2 trillion of deficit reduction over the next decade would cause federal debt held by the public to decline slightly in coming years, to 69 percent of GDP in 2025, but then to rise slightly in later years, CBO projects (see Table 1 on page 5). In contrast, the path with $4 trillion of deficit reduction would cause debt to decline steadily relative to the size of the economy throughout CBO's projection period—to 60 percent of GDP in 2025 and lower percentages thereafter.

Relative to the extended baseline, real GNP per person would be lower under those scenarios over the next three years. The deficit reduction incorporated in those scenarios would lower the demand for goods and services in the short term. Under the path with $2 trillion of deficit reduction over 10 years, real GNP would be an estimated 0.1 percent lower between 2016 and 2018 relative to that under current law. Under the path with $4 trillion of deficit reduction, real GNP would be an estimated 0.3 percent lower in 2016 and 2017, and 0.1 percent lower in 2018. Because CBO did not analyze specific policies that might underlie those paths, the agency used the same assumptions about how much each dollar of deficit reduction would affect overall demand that the agency used for its analysis of Chairman Price's specified paths.

Starting in 2019, however, real per capita GNP would be higher than under the extended baseline under both illustrative deficit reduction paths. Real GNP per person in 2025 would be 0.6 percent higher under the path with $2 trillion of deficit reduction over 10 years and 1.2 percent higher under the path with $4 trillion of deficit reduction (see Table 2 on page 8). Those percentage increases would grow over time as the lower deficits and debt under both of those paths had beneficial effects on the economy. Even so, real GNP in 2025 and later years would be lower under each of those illustrative budgetary paths than under Chairman Price's specified paths (see Figure 2 on page 4) because CBO's illustrative paths would result in larger debt held by the public than Chairman Price's specified paths would.

As is the case with the paths specified by Chairman Price, particular policies to reduce budget deficits by $2 trillion or $4 trillion over the next 10 years relative to the amounts projected to occur under current law would almost certainly involve changing incentives to work or save and the contribution of federal investment to economic output. If that happened, the overall economic impact of the deficit reduction policies would depend both on the changes in federal borrowing and on the policies' other effects. However, the estimates presented here for the illustrative paths do not incorporate effects from any differences in incentives to work or save that might be generated directly by changes in tax and benefit policies, or differences in federal investment that might be generated by changes in government spending, relative to those under the extended baseline because CBO did not analyze specific policies that might underlie those paths. Therefore, the estimated economic effects presented here arise solely from the differences in deficits and debt.

How Uncertain Are the Projected Outcomes?

The projections for federal debt and economic output presented in this report are highly uncertain, primarily because of the difficulties inherent in projecting the effects of federal fiscal policies. The projections are based on CBO's central estimates for key parameters of economic behavior—including the extent to which government borrowing crowds out capital investment in the long run and the effect that changes in real after-tax wages have on the supply of labor.[12] Estimates of those and other economic parameters are uncertain, and analysis using different parameters can produce results that are substantially higher or lower than CBO's central estimates. For example, under the ranges of estimates that CBO uses for the crowding out of investment and the responsiveness of the labor supply, the estimated increase in real GNP in 2040 under the paths specified by Chairman Price and his staff, relative to the amount projected under the extended baseline, would be between 3 percent and 10 percent (see Table 2 on page 8).

This type of analysis is also sensitive to other uncertain factors. As an example, differences in future interest rates would alter the rate at which decreases or increases in deficits would cumulate to differences in debt over time. Moreover, the macroeconomic effects of the paths specified by Chairman Price and the two illustrative scenarios could differ from the estimates reported here because of the particular policies chosen to achieve those budgetary outcomes and the ways in which households and businesses responded to those policies.

12. Among the scenarios analyzed in this report, CBO assumed that only under the extended alternative fiscal scenario would after-tax wages be changed directly by differences in marginal tax rates from those that would occur under the extended baseline because that is the only scenario for which an alternative set of tax policies was specified. All of the scenarios would affect after-tax wages indirectly, however, insofar as resulting changes in capital investment led to changes in real wages.

Appendix: CBO's Approach to the Analysis

The Congressional Budget Office's most recent long-term budget projections were issued last July in *The 2014 Long-Term Budget Outlook.*[1] Since then, the agency has updated its baseline budget projections for the next 10 years to incorporate changes in law and updates in its economic forecast and technical estimating procedures. The projections used in this report were published in January in *The Budget and Economic Outlook: 2015 to 2025.*[2]

To project outcomes under the extended baseline in this report, CBO started with those 10-year projections and extended the baseline concept after 2025 following the approach in *The 2014 Long-Term Budget Outlook*. (CBO plans to release a fully updated extended baseline later this year that will reflect the most recent 10-year projections as well as revisions to the long-term economic outlook and to CBO's technical estimating procedures.)

To project outcomes under the other budget scenarios in this report, CBO used specifications from Chairman Tom Price and his staff for one scenario and its own assumptions for three others: the extended alternative fiscal scenario and the two illustrative deficit reduction paths. Those assumptions are consistent with the ones in *The 2014 Long-Term Budget Outlook*. CBO estimated the effects on economic output, relative to the agency's extended baseline projections, for all four of those budget scenarios for the 2016–2040 period. CBO estimated the budgetary implications of the macroeconomic effects of those scenarios using a simplified analysis that takes into account changes in taxable income and interest rates, among other things, but does not incorporate a detailed program-by-program analysis, as CBO typically does for regular budget projections.

1. See Congressional Budget Office, *The 2014 Long-Term Budget Outlook* (July 2014), www.cbo.gov/publication/45471.

2. See Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), www.cbo.gov/publication/49892.

Extended Baseline

For the next decade, the extended baseline matches the 10-year baseline projections for the budget and the economy that CBO released in January 2015.[3] CBO has not yet updated its long-term budget projections to incorporate changes to the 10-year projections since April 2014 or to reflect other new information and analysis since last year. Thus, for years after 2025, CBO projected the amount of gross national product (GNP) under the extended baseline (without macroeconomic effects) by using the long-term growth rate for real (inflation-adjusted) GNP underlying the extended baseline in *The 2014 Long-Term Budget Outlook.* In addition, for fiscal policies beyond 2025, the extended baseline uses the interest rates and growth rates for revenues and spending from the extended baseline in *The 2014 Long-Term Budget Outlook.* That report reflected the fiscal policies that were scheduled to be in effect under current

3. CBO constructs its baseline projections in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget and Impoundment Control Act of 1974. To project revenues and mandatory spending, CBO assumes that current laws, with only a few exceptions, will remain unchanged throughout the 10-year projection period. To project discretionary spending, CBO assumes that annual appropriations through 2021 will adhere to the caps and automatic spending reductions established in the Budget Control Act of 2011 (as modified by subsequent legislation), that the appropriations that are capped through 2021 will grow at the rate of inflation in subsequent years, and that the discretionary funding that is not capped under the Budget Control Act (such as that for overseas military operations) will grow at the rate of inflation after 2015.

law as of April 2014, when CBO had issued what were then its most recent 10-year baseline budget projections.

To project spending beyond CBO's 10-year baseline in *The 2014 Long-Term Budget Outlook*, the agency assumed for the extended baseline that spending would generally occur as scheduled under current law.[4] CBO also assumed that after the first 10 years, individual income, payroll, excise, and estate and gift taxes would generally continue to follow current law and that corporate income taxes and other sources of revenues would remain constant as a share of gross domestic product (GDP). Under those assumptions, marginal tax rates on labor and capital income would rise over time, as the general growth of income pushed more of taxpayers' income into higher tax brackets.[5]

Paths for Federal Revenues and Noninterest Spending Specified by Chairman Price

Under the paths specified by Chairman Price and his staff, the cumulative deficit over the 2016–2025 period (excluding interest savings and macroeconomic effects) would be about $5.3 trillion lower than projected in CBO's baseline. Revenues are specified to equal the same percentage of GDP as in CBO's extended baseline each year until they reach 19 percent of GDP—in 2034, CBO projects—and then remain at 19 percent. Federal noninterest spending is specified as a share of GDP each year (as projected without macroeconomic effects): That share is about 19 percent in 2016, generally declines for the following 10 years, and then hovers around 16 percent in most years thereafter (see Figure 3 on page 6).[6]

4. There were two main exceptions. First, CBO based its projections of spending for Medicare and Medicaid after the first decade on the projected number of beneficiaries and fairly mechanical estimates of the growth in spending per beneficiary. Second, CBO assumed that, after the first decade, discretionary spending would remain at the percentage of GDP projected for the end of the first decade because such spending will be determined by lawmakers' future actions, which CBO had no basis for predicting. For additional details, see Congressional Budget Office, *The 2014 Long-Term Budget Outlook* (July 2014), Chapters 2 and 4, www.cbo.gov/publication/45471.

5. A marginal tax rate is the percentage of an additional dollar of income that is paid in taxes. Labor income is derived from employment (such as wages), whereas capital income is derived from wealth (such as stock dividends, realized capital gains, and owners' profits from businesses).

Extended Alternative Fiscal Scenario

In CBO's extended alternative fiscal scenario, various changes to current law (described below) cause deficits (excluding interest payments and macroeconomic effects) to be a total of about $2 trillion higher over the 2016–2025 period than projected in the baseline.[7] In later years, such deficits exceed those in the extended baseline by growing amounts because noninterest spending is higher, and revenues are lower, than in the extended baseline.

For this analysis, CBO constructed the extended alternative fiscal scenario in a manner consistent with the approach it used in *The 2014 Long-Term Budget Outlook.* The fact that noninterest spending is higher than in the baseline stems from several assumptions: that the automatic spending cuts required by the Budget Control Act of 2011 will not occur (although the original caps on discretionary appropriations in that law are assumed to remain in place); that lawmakers will act to keep Medicare's payment rates for physicians at current levels; and that after 2025, federal noninterest spending for programs other than Social Security, major health care programs (net of offsetting receipts), and certain refundable tax credits will rise to its average as a percentage of GDP during the past two decades—rather than fall significantly below that level, as it does in the extended baseline.

For revenues, the alternative fiscal scenario incorporates the assumption that roughly 70 tax provisions that expired recently or are scheduled to expire in the next decade (including a provision allowing businesses to immediately deduct 50 percent of new investments in equipment) will be extended through 2025, causing revenues to equal 18.1 percent of GDP by that year. After 2025, revenues are assumed to remain at 18.1 percent of GDP—a little above their average of the past 50 years, which was 17.4 percent—rather than rising over time as a percentage of GDP, as they do in the extended baseline. Marginal tax rates on labor and capital are also assumed to remain at their 2025 levels in later years.

6. The exact specifications for each year are shown in the supplemental material posted with this report on CBO's website (www.cbo.gov/publication/49977).

7. Estimates of the budgetary effects of the policies underlying the alternative fiscal scenario over that period are included in Table 1-5 of Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025* (January 2015), www.cbo.gov/publication/49892.

Two Illustrative Deficit Reduction Paths

For the two other deficit reduction paths that CBO included in this analysis for illustrative purposes, the agency assumed that deficits would gradually decline relative to the amounts projected in the extended baseline. Those reductions would be comparatively small in 2016 and would increase steadily through 2025; at that point, the reduction in the primary deficit would be $360 billion, or more than 1 percent of GDP, under the first scenario and $720 billion, or more than 2½ percent of GDP, under the second scenario. The cumulative deficit over the 2016–2025 period (excluding interest savings and macroeconomic effects) would be either $2 trillion or $4 trillion smaller than projected in the baseline. After 2025, the reductions in annual deficits relative to the extended baseline would continue at the same percentage of GDP (without macroeconomic effects) projected for 2025.

How CBO Projected Economic and Budgetary Outcomes Under Different Budget Scenarios

CBO used two approaches to estimate the macroeconomic effects of the different budget scenarios: one for the short term and another for the long term.[8] The estimated macroeconomic effects of the different budget scenarios are determined by effects on the demand for goods and services in fiscal year 2016, by effects on the nation's capital stock and labor supply starting in 2020, and by a combination of those factors from 2017 through 2019.[9] The two approaches focus on different aspects of the economy; each approach represents people's economic decisions in a simplified way while capturing some important aspects of actual behavior. The estimates of economic effects using those approaches were then incorporated into the analysis of budgetary outcomes.

The first approach addresses short-term effects that stem largely from variations in the overall demand for goods and services. CBO estimates the short-term economic effects of changes in overall demand by using models and historical evidence to assess how such policies alter the economy directly and indirectly. Direct effects include changes in output caused by changes in the demand for goods and services by the federal government or by the groups directly affected by a policy, such as the recipients of a tax cut. Indirect effects enhance or offset the direct effects.[10]

The second approach addresses the long-term economic impact of changes in fiscal policies that stem largely from variations in the supply of labor and capital. To assess those effects, CBO uses a model that is an enhanced version of a widely used model originally developed by Robert Solow. In that model economic output is determined by the number of hours of labor that workers supply, the size and composition of the capital stock (such as factories and computers), and total factor productivity (the combined productivity of labor and capital).[11] People base their decisions about working and saving primarily on current economic conditions—especially wage levels, interest rates, and government policies. People's responses to changes in such conditions are generally assumed to mirror their past responses to economic and policy developments. As a result, the responses reflect people's anticipation of future policies in a general way but not their expectations of specific future events. In addition, the analysis in this report incorporates the assumption that the scenarios do not alter the contributions that federal investment makes to future productivity and output; those contributions are assumed to reflect their past long-term trends.

To incorporate economic effects (or feedback) into the analysis of budgetary outcomes, CBO generally used procedures it has used for similar long-term analyses in the past.[12] The agency estimated that increases in output

8. For a detailed discussion of CBO's analytical methods, see Congressional Budget Office, *How CBO Analyzes the Effects of Changes in Federal Fiscal Policies on the Economy* (November 2014), www.cbo.gov/publication/49494.

9. Specifically, CBO combined results from its modeling approaches as follows: Estimates for fiscal year 2016 were based entirely on short-run economic effects; estimates for fiscal years 2017, 2018, and 2019 place weights of 0.75, 0.50, and 0.25, respectively, on the short-run effects, and the remaining weights on the long-run effects on the capital stock and labor supply; and estimates for fiscal years 2020 and beyond were based entirely on effects on the capital stock and labor supply.

10. For a detailed discussion of how CBO analyzes the short-term effects of changes in fiscal policy on the economy, see Charles Whalen and Felix Reichling, *The Fiscal Multiplier and Economic Policy Analysis in the United States*, Working Paper 2015-02 (Congressional Budget Office, January 2015), www.cbo.gov/publication/49925.

11. For a detailed description of CBO's Solow-type growth model, see Congressional Budget Office, *CBO's Method for Estimating Potential Output: An Update* (August 2001), www.cbo.gov/publication/13250.

would raise revenues, primarily because income and payroll taxes would rise with higher income. CBO also estimated that, over the long term, increases in output would boost spending for the government's retirement programs (because of formulas in those programs that link benefits to earnings) and spending for health care programs (in keeping with CBO's standard approach for projecting the long-term growth of health care costs). Decreases in output were estimated to have the opposite effects. For other types of noninterest spending, by contrast, CBO assumes that spending in the long run is unaffected by changes in output. Over the first five years of the analysis, CBO also incorporated budgetary effects stemming from changes in output that arise from changes in overall demand. During that period, increases in output were estimated to reduce spending on programs such as unemployment insurance, and decreases in output were estimated to have the opposite effect.

12. For example, see Congressional Budget Office, *The 2014 Long-Term Budget Outlook* (July 2014), Chapter 6, www.cbo.gov/publication/45471; *Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Ryan, April 2014* (April 2014), www.cbo.gov/publication/45211; and *Macroeconomic Effects of Alternative Budgetary Paths* (February 2013), Appendix A, www.cbo.gov/publication/43769.

About This Document

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Douglas W. Elmendorf

Douglas W. Elmendorf
Director

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